

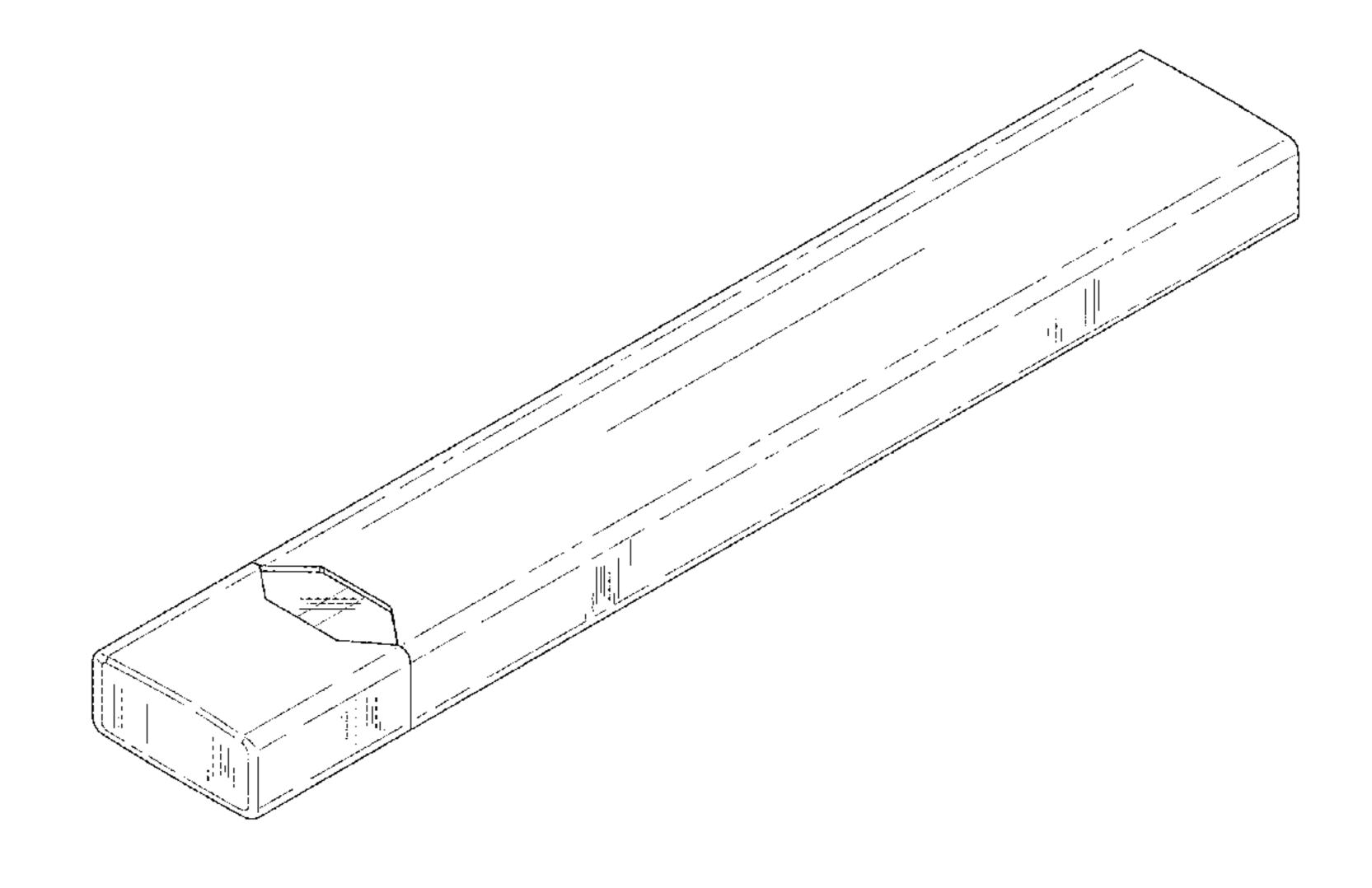
US00D825102S

(12) United States Design Patent (10) Patent No.: US D825,102 S

Bowen et al. (45) Date of Patent

(45) Date of Patent: ** Aug. 7, 2018

| (54) | VAPORIZ | ZER DEVICE WITH CARTRIDGE | 595,070 A | 12/1897 | Oldenbusch |
|------|-------------|---|----------------------------|---------|---------------------------|
| () | | | 720,007 A | 2/1903 | Dexter |
| (71) | Annlicant | JUUL LABS, INC., San Francisco, CA | 799,844 A | 9/1905 | Fuller |
| (71) | Applicant. | | 968,160 A | 8/1910 | Johnson |
| | | (US) | 969,076 A | 8/1910 | Pender |
| | | | 1,067,531 A | 7/1913 | MacGregor |
| (72) | Inventors: | Adam Bowen, San Francisco, CA (US); | 1,163,183 A | 12/1915 | Stol1 |
| ` / | | James Monsees, San Francisco, CA | 1,299,162 A | 4/1919 | Fisher |
| | | | 1,505,748 A | 8/1924 | |
| | | (US); Steven Christensen, San | 1,552,877 A | | Phillipps et al. |
| | | Francisco, CA (US); Joshua | 1,632,335 A | | Hiering |
| | | Morenstein, San Francisco, CA (US); | 1,706,244 A | 3/1929 | |
| | | Christopher Nicholas HibmaCronan, | 1,845,340 A | 2/1932 | |
| | | Oakland, CA (US) | 1,972,118 A | | McDill |
| | | Oukland, Cri (OD) | 1,998,683 A | | Montgomery |
| (72) | A gaianaa. | HILL Labe Inc. Con Eveneiges CA | 2,031,363 A | 2/1936 | |
| (73) | Assignee: | JUUL Labs, Inc., San Francisco, CA | 2,039,559 A | 5/1936 | |
| | | (US) | 2,104,266 A | | McCormick |
| | | | 2,159,698 A | | Harris et al. |
| (**) | Term: | 15 Years | 2,177,636 A 2,195,260 A | | Coffelt et al. Rasener |
| | | | 2,193,200 A 2,231,909 A | | Hempal |
| (21) | Appl. No.: | 35/001,169 | 2,231,303 A 2,327,120 A | | McCoon |
| () | T | , , | D142,178 S | | Becwar |
| (22) | Filed: | Jul. 28, 2016 | 2,460,427 A | | Musselman et al. |
| (22) | i nea. | oui. 20, 2010 | 2,483,304 A | 9/1949 | |
| (90) | | Hague Agreement Data | 2,502,561 A | | Ludwig |
| (80) | | Hague Agreement Data | 2,765,949 A | 10/1956 | • |
| | Int. Filing | Date: Mar. 11, 2016 | 2,830,597 A | | Kummli |
| | _ | | 2,860,638 A | 11/1958 | Bartolomeo |
| | Int. Reg. N | No.: DM/092570 | 2,897,958 A | 8/1959 | Tarleton et al. |
| | Int. Reg. I | Date: Jul. 28, 2016 | 2,935,987 A | 5/1960 | Ackerbauer |
| | • | Pub. Date: Feb. 3, 2017 | 3,085,145 A | 4/1963 | Wray |
| | mi. Reg. 1 | ub. Date. Feb. 5, 2017 | 3,146,937 A | 9/1964 | L |
| (51) | LOC (11) | Cl | 3,258,015 A | | Ellis et al. |
| (52) | U.S. Cl. | | 3,271,719 A | | Ovshinsky |
| () | | D27/167 | 3,292,634 A | 12/1966 | |
| (50) | | | D207,887 S | | Parsisson |
| (38) | | lassification Search | 3,373,915 A | | Anderson et al. |
| | | D27/102, 105, 106, 110–112 | 3,420,360 A | 1/1969 | Acker et al. |
| | CPC | A24F 19/0064; A24F 15/18; A24F 13/20; | 3,443,827 A | | |
| | | A24F 13/18; A24F 23/00; A24F 19/0085; | 3,456,645 A | 7/1969 | |
| | | A24F 19/14; A24F 13/14; A24F 19/00; | 3,479,561 A | 11/1969 | • |
| | | B65D 5/18; B65D 5/0209 | 3,567,014 A | | Feigelman |
| | Soo annlic | ation file for complete search history. | 3,675,661 A | | Weaver |
| | see applic | ation the for complete search history. | 3,707,017 A | | Paquette |
| (50) | | | 3,792,704 A | 2/1974 | |
| (56) | | References Cited | 3,815,597 A | | Goettelman |
| | тт. | | 3,861,523 A | | Fountain et al. |
| | U. | S. PATENT DOCUMENTS | 3,941,300 A | 3/1976 | |
| | 054.504 | 10/1005 0 1 | 4,020,853 A | 5/1977 | |
| | 374,584 A | | 4,049,005 A | | Hernandez et al. |
| | 576,653 A | 2/1897 Bowlby | 4,066,088 A | 1/1978 | Ensor |



| D250 405 C | | | | _ , | |
|--|--|---|---|---|--|
| D250,485 S | 12/1978 | Cuthbertson | 5,240,012 A | 8/1993 | Ehrman et al. |
| D255,548 S | 6/1980 | Grodin | 5,249,586 A | 10/1993 | Morgan et al. |
| 4,207,976 A | 6/1980 | Herman | , , | | Sprinkel, Jr. |
| 4,215,708 A | 8/1980 | | • | | Baker et al. |
| , , | | | , , | | |
| 4,219,032 A | | Tabatznik et al. | , , | | Counts et al. |
| D260,690 S | 9/1981 | Stutzer | H001271 H | 1/1994 | Shouse |
| 4,303,083 A | 12/1981 | Burruss, Jr. | 5,296,685 A | 3/1994 | Burstein et al. |
| , , | 1/1982 | • | 5,303,720 A | | Banerjee et al. |
| , , | | | , , | | 3 |
| 4,347,855 A | | Lanzillotti et al. | 5,322,075 A | | Deevi et al. |
| 4,391,285 A | 7/1983 | Burnett et al. | 5,324,498 A | 6/1994 | Streusand et al. |
| D271,255 S | 11/1983 | Rousseau | 5,345,951 A | 9/1994 | Serrano et al. |
| 4,492,480 A | | | 5,369,723 A | | |
| , , | | | , , | | |
| 4,506,683 A | | Cantrell et al. | 5,372,148 A | | McCafferty et al. |
| 4,519,319 A | 5/1985 | Howlett | 5,388,574 A | 2/1995 | Ingebrethsen |
| 4,520,938 A | 6/1985 | Finke | 5,449,078 A | 9/1995 | Akers |
| D280,494 S | 9/1985 | | , , | | Kollasch |
| ′ | | _ | / / | | |
| 4,595,024 A | | Greene et al. | , , | | Nicholson |
| 4,625,737 A | 12/1986 | Keritsis et al. | D367,605 S | 3/1996 | Moore |
| 4,648,393 A | 3/1987 | Landis et al. | 5,497,791 A | 3/1996 | Bowen et al. |
| 4,708,151 A | 11/1987 | | D368,552 S | 4/1996 | Adams |
| , , | | | · · · · · · · · · · · · · · · · · · · | | |
| 4,735,217 A | | Gerth et al. | 5,529,078 A | | Rehder et al. |
| 4,771,796 A | 9/1988 | | D371,633 S | 7/1996 | Chenard |
| 4,793,365 A | 12/1988 | Sensabaugh, Jr. et al. | 5,545,904 A | 8/1996 | Orbach |
| 4,794,323 A | 12/1988 | Zhou et al. | 5,564,442 A | 10/1996 | MacDonald et al. |
| , , | | Kasai et al. | / / | 12/1996 | |
| , , | | | / / | | |
| 4,813,536 A | 3/1989 | | 5,591,368 A | | Fleischhauer et al. |
| 4,819,665 A | 4/1989 | Roberts et al. | 5,605,226 A | 2/1997 | Hemlein |
| 4,830,028 A | 5/1989 | Lawson et al. | D379,810 S * | 6/1997 | Giordano, Jr D14/138 R |
| / | | | 5,641,064 A | | Goserud |
| D301,837 S | | Peterson et al. | , , | | |
| 4,836,224 A | 6/1989 | Lawson et al. | D380,293 S | 7/1997 | Cudmore |
| 4,846,199 A | 7/1989 | Rose | 5,649,552 A | 7/1997 | Cho et al. |
| 4,848,374 A | 7/1989 | Chard et al. | D382,146 S | 8/1997 | Sandy |
| 4,848,563 A | | Robbins | 5,666,977 A | | |
| , , | | | | | Higgins et al. |
| D302,659 S | | Peterson et al. | 5,666,978 A | | Counts et al. |
| D303,722 S | 9/1989 | Marlow et al. | 5,708,258 A | 1/1998 | Counts et al. |
| 4,870,748 A | 10/1989 | Hensgen et al. | 5,730,118 A | 3/1998 | Hermanson |
| D304,771 S | | Katayama | 5,730,158 A | | Collins et al. |
| · | | | , , | | |
| 4,893,639 A | 1/1990 | | 5,746,587 A | | Racine et al. |
| 4,896,683 A | 1/1990 | Cohen et al. | D397,504 S | 8/1998 | Zelenik |
| 4 007 606 A | 2/1000 | T :11:4 -1 | D000 160 C V | 2/1222 | |
| 4.907.000 A | 3/1990 | Lina et ai. | D398,150 S * | 9/1998 | Vonarburg D28/85 |
| 4,907,606 A 4 924 883 A | | 3 | | | Vonarburg D28/85 Rennecamp |
| 4,924,883 A | 5/1990 | Perfetti et al. | 5,810,164 A | 9/1998 | Rennecamp |
| 4,924,883 A 4,938,236 A | 5/1990 7/1990 | Perfetti et al. Banerjee et al. | 5,810,164 A 5,819,756 A | 9/1998 10/1998 | Rennecamp Mielordt |
| 4,924,883 A | 5/1990 7/1990 | Perfetti et al. | 5,810,164 A 5,819,756 A | 9/1998 10/1998 | Rennecamp |
| 4,924,883 A 4,938,236 A 4,941,483 A | 5/1990 7/1990 7/1990 | Perfetti et al. Banerjee et al. Ridings et al. | 5,810,164 A 5,819,756 A 5,845,649 A | 9/1998 10/1998 12/1998 | Rennecamp Mielordt Saito et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A | 5/1990 7/1990 7/1990 7/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S | 9/1998 10/1998 12/1998 2/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S | 5/1990 7/1990 7/1990 7/1990 8/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A | 9/1998 10/1998 12/1998 2/1999 2/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A | 9/1998 10/1998 12/1998 2/1999 2/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A | 9/1998 10/1998 12/1998 2/1999 2/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A | 9/1998 10/1998 12/1998 2/1999 2/1999 2/1999 3/1999 3/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A | 9/1998 10/1998 12/1998 2/1999 2/1999 2/1999 3/1999 4/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A | 9/1998 10/1998 12/1998 2/1999 2/1999 2/1999 3/1999 4/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,938,018 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,938,018 A 5,934,025 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,938,018 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 6/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A | 9/1998 10/1998 12/1998 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 5/1991 7/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 6/1999 8/1999 8/1999 8/1999 10/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 10/1999 10/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 5/1991 7/1991 7/1991 8/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1991 2/1991 4/1991 5/1991 5/1991 7/1991 7/1991 8/1991 8/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,934,025 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1991 2/1991 4/1991 5/1991 5/1991 7/1991 7/1991 8/1991 8/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 12/1991 4/1991 4/1991 5/1991 6/1991 7/1991 8/1991 8/1991 8/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,979,460 A 5,994,025 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 5/1991 7/1991 7/1991 8/1991 8/1991 9/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,065,776 A | 5/1990 7/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1991 1/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 8/1991 10/1991 11/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 2/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,065,776 A 5,065,776 A 5,076,297 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 1/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 11/1991 11/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Farrier et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,979,460 A 5,979,460 A 5,979,460 A 5,979,460 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 2/2000 2/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,065,776 A 5,065,776 A 5,076,297 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 1/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 11/1991 11/1991 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 2/2000 2/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 7/1991 7/1991 8/1991 10/1991 11/1991 12/1991 4/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,994,025 A 6,024,097 A 6,026,820 A 6,040,560 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 7/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/1999 2/2000 3/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 7/1991 7/1991 8/1991 10/1991 11/1991 11/1991 12/1991 4/1992 4/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Farrier et al. Schwartz et al. Banerjee et al. Banerjee et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,994,025 A 5,994,025 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S ** | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 4/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond D8/354 |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 10/1991 11/1991 12/1991 4/1992 4/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,979,460 A 5,994,025 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S * 6,053,176 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 12/1999 2/2000 2/2000 4/2000 4/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,838 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 11/1991 11/1991 12/1991 4/1992 4/1992 4/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Brooks et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,979,460 A 5,979,460 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 3/2000 4/2000 5/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 10/1991 11/1991 12/1991 4/1992 4/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Brooks et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,979,460 A 5,994,025 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S * 6,053,176 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 3/2000 4/2000 5/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,836 A 5,105,838 A 5,105,838 A 5,123,530 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 8/1991 10/1991 11/1991 11/1991 12/1991 4/1992 4/1992 4/1992 6/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,994,025 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 12/2000 2/2000 3/2000 4/2000 7/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,042,509 A 5,040,551 A 5,065,776 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,123,530 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 7/1991 7/1991 7/1991 11/1991 11/1991 11/1991 11/1991 11/1991 4/1992 4/1992 4/1992 7/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 3/2000 4/2000 4/2000 8/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,042,509 A 5,042,509 A 5,042,509 A 5,060,671 A 5,065,776 A 5,076,297 A 5,105,831 A 5,105,831 A 5,105,836 A 5,123,530 A 5,127,511 A 5,133,368 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 7/1991 7/1991 7/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 7/1992 7/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,979,460 A 5,994,025 A 6,024,097 A 6,025,884 S 8 6,089,857 A 6,095,153 A 6,102,036 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 3/2000 4/2000 5/2000 8/2000 8/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,042,509 A 5,040,551 A 5,065,776 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,123,530 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 7/1991 7/1991 7/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 7/1992 7/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 6/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 2/2000 3/2000 4/2000 5/2000 8/2000 8/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,127,511 A 5,133,368 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 12/1991 4/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 10/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 7/1992 8/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 11/1999 12/2000 3/2000 3/2000 4/2000 5/2000 7/2000 8/2000 9/2000 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond D8/354 Adams et al. Reed Matsuura et al. Kessler et al. Slutsky et al. Nohl et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,040,551 A 5,042,509 A 5,050,621 A 5,065,776 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,123,530 A 5,127,511 A 5,133,368 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 7/1992 8/1992 9/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond D8/354 Adams et al. Reed Matsuura et al. Kessler et al. Slutsky et al. Nohl et al. Susa et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,040,551 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,838 A 5,105,838 A 5,105,838 A 5,105,838 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,141,004 A 5,144,962 A 5,144,962 A 5,148,817 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 12/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 9/1992 9/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,040,551 A 5,042,509 A 5,050,621 A 5,065,776 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,123,530 A 5,127,511 A 5,133,368 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 12/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 9/1992 9/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond D8/354 Adams et al. Reed Matsuura et al. Kessler et al. Slutsky et al. Nohl et al. Susa et al. |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,031,646 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,065,776 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,105,838 A 5,123,530 A 5,123,530 A 5,127,511 A 5,133,368 A 5,141,004 A 5,144,962 A 5,144,962 A 5,148,817 A 5,152,456 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 1/1992 1/1992 1/1992 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. Ross et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S 6,155,268 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,838 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,141,004 A 5,144,962 A 5,144,962 A 5,148,817 A 5,152,456 A 5,152,456 A 5,183,062 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 4/1992 1/1992 1/1992 1/1993 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. Ross et al. Clearman et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S 6,155,268 A 6,164,287 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,040,551 A 5,040,551 A 5,040,551 A 5,040,551 A 5,040,551 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,831 A 5,105,838 A 5,123,530 A 5,123,530 A 5,123,530 A 5,123,530 A 5,124,962 A 5,144,962 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 10/1992 10/1992 10/1993 6/1993 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. Ross et al. Clearman et al. Miller et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S 6,155,268 A 6,164,287 A D436,686 S | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,040,551 A 5,042,509 A 5,050,621 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,838 A 5,105,838 A 5,123,530 A 5,127,511 A 5,133,368 A 5,141,004 A 5,144,962 A 5,144,962 A 5,148,817 A 5,152,456 A 5,152,456 A 5,183,062 A | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 12/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 4/1992 10/1992 10/1992 10/1993 6/1993 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. Ross et al. Clearman et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,934,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S 6,155,268 A 6,164,287 A | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 10/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |
| 4,924,883 A 4,938,236 A 4,941,483 A 4,944,317 A D310,171 S 4,945,929 A 4,947,874 A 4,947,875 A D310,349 S 4,955,397 A 4,974,609 A 4,984,588 A D315,032 S 5,005,759 A 5,019,122 A 5,020,548 A 5,027,836 A 5,027,836 A 5,040,551 A 5,040,551 A 5,040,551 A 5,040,551 A 5,040,551 A 5,060,671 A 5,065,776 A 5,076,297 A 5,101,838 A 5,105,831 A 5,105,838 A 5,105,838 A 5,105,838 A 5,123,530 A 5,123,530 A 5,123,530 A 5,123,530 A 5,123,530 A 5,124,962 A 5,144,962 A 5,148,817 A 5,152,456 A 5,183,062 A D336,346 S | 5/1990 7/1990 7/1990 8/1990 8/1990 8/1990 9/1990 9/1990 1/1991 2/1991 4/1991 5/1991 6/1991 7/1991 7/1991 8/1991 11/1991 11/1991 11/1991 11/1991 11/1991 11/1992 4/1992 4/1992 4/1992 7/1992 7/1992 7/1992 7/1992 7/1993 6/1993 6/1993 7/1993 | Perfetti et al. Banerjee et al. Ridings et al. Thal Cusenza Egilmex Brooks et al. Brooks et al. Rowen Johnson et al. Southwick et al. Stewart, Jr. Hayes Bouche Clearman et al. Farrier et al. Shannon et al. Lippiello et al. Schlatter et al. Banerjee et al. Creighton et al. Counts et al. Lawson et al. Farrier et al. Schwartz et al. Banerjee et al. Gentry et al. White et al. Lee Keen, Jr. et al. Neumann et al. Porenski Counts et al. Houminer et al. Ross et al. Clearman et al. Miller et al. | 5,810,164 A 5,819,756 A 5,845,649 A D405,007 S 5,865,185 A 5,865,186 A 5,878,752 A 5,881,884 A 5,894,841 A D411,332 S D412,279 S 5,931,828 A 5,934,289 A 5,934,289 A 5,938,018 A 5,944,025 A 5,954,979 A D414,893 S 5,967,310 A 5,975,415 A 5,979,460 A 5,994,025 A 5,996,589 A 6,024,097 A 6,026,820 A 6,040,560 A D422,884 S 6,053,176 A D424,236 S 6,089,857 A 6,095,153 A 6,102,036 A 6,119,684 A 6,125,853 A D433,532 S 6,155,268 A 6,164,287 A D436,686 S | 9/1998 10/1998 12/1999 2/1999 2/1999 3/1999 3/1999 4/1999 8/1999 8/1999 8/1999 8/1999 10/1999 10/1999 11/1999 | Rennecamp Mielordt Saito et al. Naas, Sr. Collins et al. Volsey, II Adams et al. Podosek Voges Zelenik Brice Durkee Watkins et al. Keaveney et al. Cook et al. Counts et al. Moore Hill Zehnal Matsumura Iwasa et al. St. Charles Von Wielligh Baggett, Jr. et al. Fleischhauer et al. Lafond |

| D442,328 S 6,234,169 B1 | -(| | | | |
|---|---|---|--|--|--|
| 6 234 169 B1 | 5/2001 | Barmes | D535,261 S | 1/2007 | Daniels |
| 0,231,107 171 | 5/2001 | Bulbrook et al. | D535,308 S | 1/2007 | Andre et al. |
| 6,265,789 B1 | | Honda et al. | 7,173,222 B2 | 2/2007 | Cox et al. |
| | | Gustafson | 7,185,659 B2 | | Sharpe |
| , | | | , , | | |
| , , | | Pallo et al. | D539,813 S | 4/2007 | |
| D450,313 S | | | D540,687 S | 4/2007 | C . |
| D450,662 S | 11/2001 | Kwok | D540,749 S | 4/2007 | Kaule |
| 6,324,261 B1 | 11/2001 | Merte | 7,214,075 B2 | 5/2007 | He et al. |
| 6,349,728 B1 | 2/2002 | Pham | D544,643 S | 6/2007 | Lin |
| D454,079 S | 3/2002 | | D545,303 S | 6/2007 | |
| 6,381,739 B1 | | Bretemitz, Jr. et al. | 7,234,593 B2 | | Fath et al. |
| , , | | • | / / | | |
| 6,386,371 B1 | | Parsons | D545,904 S | | |
| 6,407,371 B1 | | Toya et al. | D546,782 S | | Poulet et al. |
| 6,418,938 B1 | | Fleischhauer et al. | D547,002 S | 7/2007 | |
| 6,431,363 B1 | 8/2002 | Hacker | D551,548 S | 9/2007 | Didier |
| 6,443,146 B1 | 9/2002 | Voges | D551,970 S | 10/2007 | Didier |
| 6,446,793 B1 | 9/2002 | Layshock | 7,275,941 B1 | 10/2007 | Bushby |
| D465,660 S | 11/2002 | | D556,154 S | 11/2007 | Poulet et al. |
| 6,510,982 B2 | | White et al. | 7,290,549 B2 | | |
| D471,104 S | 3/2003 | | | | Ahlgren et al. |
| , | | | • | | ~ |
| 6,532,965 B1 | | Abhulimen et al. | | | {hacek over (SI)}ir D9/687 |
| 6,536,442 B2 | | St. Charles et al. | D562,151 S | | Larocca et al. |
| 6,557,708 B2 | | Polacco | D565,496 S | 4/2008 | |
| 6,598,607 B2 | | Adiga et al. | D568,298 S | 5/2008 | Lundgren et al. |
| D477,920 S | 8/2003 | McCarty et al. | D569,727 S | 5/2008 | Moretti |
| D478,569 S | 8/2003 | Hussaini et al. | 7,374,048 B2 | 5/2008 | Mazurek |
| D478,897 S | 8/2003 | | D571,202 S | 6/2008 | |
| 6,603,924 B2 | | Brown et al. | D571,556 S * | | Raile D3/265 |
| 6,606,998 B1 | 8/2003 | | D573,474 S * | | Beam |
| 6,612,404 B2 | | Sweet et al. | 7,415,982 B1 | | Sheridan |
| , , | | | / / | | |
| 6,615,840 B1 | | Fournier et al. | D576,619 S | | Udagawa et al. |
| 6,622,867 B2 | | Menceles | D577,019 S | | Udagawa et al. |
| , , | | Voges et al. | D577,150 S | | Bryman et al. |
| 6,655,379 B2 | 12/2003 | Clark et al. | D577,591 S | 9/2008 | Bouroullec et al. |
| D485,639 S | 1/2004 | Stronski | 7,428,905 B2 | 9/2008 | Mua |
| 6,672,762 B1 | 1/2004 | Faircloth et al. | 7,434,584 B2 | 10/2008 | Steinberg |
| , , | | Wrenn et al. | , , | | Seebold |
| 6,707,274 B1 | 3/2004 | | D585,077 S | | |
| 6,708,846 B1 | | Fuchs et al. | 7,488,171 B2 | | St. Charles et al. |
| | | | , | | |
| 6,726,006 B1 | | Funderburk et al. | D589,941 S | | Maier et al. |
| 6,743,030 B2 | | Lin et al. | D590,988 S | 4/2009 | |
| 6,747,573 B1 | 6/2004 | Gerlach et al. | D590,989 S | 4/2009 | Hon |
| 6,752,649 B2 | 6/2004 | Arkin et al. | D590,990 S | 4/2009 | Hon |
| D494,315 S | 8/2004 | Cartier | D590,991 S | 4/2009 | Hon |
| 6,769,436 B2 | 8/2004 | | D591,758 S | 5/2009 | |
| 0,.03,.30 B2 | | | 7,530,352 B2 | | Childers et al. |
| 6 772 756 B2 | 8/2004 | Shayan | 1,550,552 DZ | 3/2007 | Children et al. |
| 6,772,756 B2 | 8/2004 9/2004 | Riesecker | 7 546 703 B2 | 6/2000 | Johnske et al |
| D495,599 S | 9/2004 | | 7,546,703 B2 | | Johnske et al. |
| D495,599 S 6,799,576 B2 | 9/2004 10/2004 | Farr | D599,670 S | 9/2009 | Qin |
| D495,599 S 6,799,576 B2 6,803,545 B2 | 9/2004 10/2004 10/2004 | Farr Blake et al. | D599,670 S 7,581,540 B2 | 9/2009 9/2009 | Qin Hale et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 | 9/2004 10/2004 10/2004 10/2004 | Farr Blake et al. Sabo | D599,670 S 7,581,540 B2 7,621,403 B2 | 9/2009 9/2009 11/2009 | Qin Hale et al. Althoff et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 | 9/2004 10/2004 10/2004 10/2004 10/2004 | Farr Blake et al. Sabo Slaboden | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S | 9/2009 9/2009 11/2009 12/2009 | Qin Hale et al. Althoff et al. Leonardis |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 | 9/2004 10/2004 10/2004 10/2004 10/2004 | Farr Blake et al. Sabo | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S | 9/2009 9/2009 11/2009 12/2009 | Qin Hale et al. Althoff et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 | Farr Blake et al. Sabo Slaboden Felter et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S | 9/2009 9/2009 11/2009 12/2009 12/2009 | Qin Hale et al. Althoff et al. Leonardis |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Mayo et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S | 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 8/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 8/2010 8/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S | 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 8/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 7/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 8/2010 8/2010 9/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 7/2005 8/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Harwig et al. Harwig et al. Ricatto et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 8/2010 8/2010 9/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Mayo et al. Ricatto et al. Logan | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 7/2010 8/2010 8/2010 9/2010 9/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 8/2010 8/2010 9/2010 9/2010 9/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S | 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 2/2006 3/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 2/2006 3/2006 4/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 | 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 10/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 2/2006 3/2006 4/2006 6/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 D627,962 S | 9/2009 11/2009 12/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 3/2006 3/2006 4/2006 8/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Harwig et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 | 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 10/2010 11/2010 11/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 3/2006 3/2006 4/2006 8/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 | 9/2009 11/2009 12/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 2/2006 3/2006 4/2006 8/2006 8/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Harwig et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 | 9/2009 11/2009 12/2009 12/2009 12/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2006 2/2006 3/2006 4/2006 8/2006 8/2006 8/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Hobart et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,845,359 B2 | 9/2009 11/2009 12/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 11/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2006 2/2006 3/2006 3/2006 4/2006 8/2006 9/2006 9/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Hobart et al. Andre et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,845,359 B2 D631,055 S | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 11/2010 11/2010 11/2010 11/2010 11/2010 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2005 2/2006 3/2006 4/2006 8/2006 9/2006 9/2006 9/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Andre et al. Smith et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S * 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S | 9/2009 11/2009 12/2009 12/2009 12/2010 1/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 11/2011 1/2011 1/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 D530,340 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2006 2/2006 2/2006 3/2006 4/2006 8/2006 9/2006 9/2006 10/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Blair et al. Aoshima et al. Andre et al. Smith et al. Andre et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S 7,886,507 B2 | 9/2009 9/2009 11/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 11/2010 11/2010 11/2011 1/2011 1/2011 2/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 D530,340 S D531,190 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2006 2/2006 3/2006 4/2006 4/2006 8/2006 9/2006 9/2006 10/2006 10/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Andre et al. Smith et al. Andre et al. Lee et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S 7,886,507 B2 7,886,507 B2 7,886,507 B2 7,891,666 B2 | 9/2009 11/2009 12/2009 12/2009 12/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 11/2010 11/2010 11/2010 11/2011 1/2011 2/2011 2/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 D530,340 S D531,190 S 7,117,707 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2006 2/2006 3/2006 4/2006 6/2006 10/2006 10/2006 10/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Andre et al. Smith et al. Andre et al. Lee et al. Adams et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S 7,886,507 B2 7,891,666 B2 D634,735 S | 9/2009 11/2009 12/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 11/2011 1/2011 1/2011 1/2011 2/2011 2/2011 3/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 D530,340 S D531,190 S | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2006 2/2006 3/2006 4/2006 4/2006 8/2006 9/2006 9/2006 10/2006 10/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Andre et al. Smith et al. Andre et al. Lee et al. Adams et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S 7,886,507 B2 7,886,507 B2 7,886,507 B2 7,891,666 B2 | 9/2009 11/2009 12/2009 12/2009 12/2009 1/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 11/2011 1/2011 1/2011 1/2011 2/2011 2/2011 3/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |
| D495,599 S 6,799,576 B2 6,803,545 B2 6,803,744 B1 6,805,545 B2 6,810,883 B2 D500,301 S D500,302 S 6,827,573 B2 6,854,470 B1 6,874,507 B2 D505,922 S D506,447 S D506,731 S 6,909,840 B2 D507,244 S 6,923,890 B2 6,954,979 B2 6,994,096 B2 7,000,775 B2 7,015,796 B2 7,025,066 B2 D523,171 S D525,948 S 7,082,825 B2 D528,992 S D529,044 S 7,109,876 B2 D530,340 S D531,190 S 7,117,707 B2 | 9/2004 10/2004 10/2004 10/2004 11/2004 12/2004 12/2004 12/2004 2/2005 4/2005 6/2005 6/2005 6/2005 6/2005 7/2005 8/2005 10/2006 3/2006 4/2006 4/2006 6/2006 10/2006 10/2006 10/2006 10/2006 11/2006 | Farr Blake et al. Sabo Slaboden Felter et al. Deguchi Deguchi St. Charles et al. Pu Farr Mayo et al. Mayo et al. Mayo et al. Harwig et al. Ricatto et al. Logan Rostami et al. Gelardi et al. Snyder Lawson et al. Mitten et al. Blair et al. Aoshima et al. Andre et al. Smith et al. Andre et al. Lee et al. Adams et al. | D599,670 S 7,581,540 B2 7,621,403 B2 D605,509 S D606,505 S 7,633,270 B2 7,644,823 B2 D610,588 S D611,409 S D616,753 S 7,726,320 B2 7,753,055 B2 D621,357 S 7,767,698 B2 D624,238 S 7,793,860 B2 7,793,861 B2 7,801,573 B2 D624,880 S 7,813,832 B2 7,813,832 B2 7,815,332 B1 D627,962 S 7,832,397 B2 7,832,410 B2 7,832,410 B2 7,845,359 B2 D631,055 S D631,458 S 7,886,507 B2 7,891,666 B2 D634,735 S | 9/2009 11/2009 12/2009 12/2009 12/2010 2/2010 3/2010 6/2010 6/2010 6/2010 7/2010 8/2010 9/2010 9/2010 9/2010 9/2010 10/2010 10/2010 10/2010 11/2010 11/2010 11/2011 1/2011 1/2011 2/2011 3/2011 3/2011 | Qin Hale et al. Althoff et al. Leonardis Seflic et al. Wong et al. Gelardi et al. Chen Green et al. Beam |

| D (20 20 20 C) | c (0.0.4.4 | 3. T | 0.600.00. | 4 (2 0 4 4 | |
|----------------|------------|----------------------|---------------------------------------|------------|-------------------|
| D639,303 S | | Ni et al. | 8,689,805 B2 | 4/2014 | |
| D639,782 S | 6/2011 | Kim | 8,695,794 B2 | 4/2014 | Scatterday |
| D641,718 S | 7/2011 | Sakai | 8,707,965 B2 | 4/2014 | Newton |
| D642,330 S | 7/2011 | Turner | D704,629 S | 5/2014 | Liu |
| D644,375 S | 8/2011 | Zhou | D704,634 S | 5/2014 | Eidelman et al. |
| 7,987,846 B2 | 8/2011 | Hale et al. | D705,918 S | 5/2014 | Robinson et al. |
| 7,988,034 B2 | 8/2011 | Pezzoli | 8,714,150 B2 | 5/2014 | Alelov |
| 8,003,080 B2 | | Rabinowitz et al. | 8,714,161 B2 | 5/2014 | |
| D645,817 S * | | Sasada D13/108 | 8,733,345 B2 | 5/2014 | |
| D647,247 S | | | 8,733,346 B2 | | Rinker |
| , | | | , , | | |
| 8,042,550 B2 | | Urtsev et al. | D707,389 S | | |
| D649,708 S | | | D707,627 S | | |
| D649,932 S | | Symons | 8,739,788 B2 | | Yomtov |
| 8,079,371 B2 | | Robinson et al. | 8,741,348 B2 | | Hansson et al. |
| 8,080,975 B2 | 12/2011 | Bessa et al. | 8,752,545 B2 | 6/2014 | Buchberger |
| 8,091,558 B2 | 1/2012 | Martzel | 8,752,557 B2 | 6/2014 | Lipowicz |
| D653,803 S | 2/2012 | Timmermans | 8,757,169 B2 | 6/2014 | Gysland |
| D656,496 S | 3/2012 | Andre et al. | D708,727 S | 7/2014 | Postma |
| 8,141,701 B2 | 3/2012 | Hodges | 8,770,187 B2 | 7/2014 | Murphy |
| 8,156,944 B2 | 4/2012 | | 8,781,307 B2 | | Buzzetti |
| 8,157,918 B2 | | Becker et al. | 8,790,556 B2 | | Bundren et al. |
| 8,170,623 B2 | | Dorogusker et al. | 8,794,231 B2 | | Thorens et al. |
| D661,889 S | 6/2012 | • | 8,794,244 B2 | | Hammel et al. |
| D661,991 S | | Brummelhuis et al. | 8,794,245 B1 | | Scatterday |
| , | | | , , | | • |
| 8,205,622 B2 | 6/2012 | | 8,794,434 B2 | | Scatterday et al. |
| D664,146 S | | Hoehn et al. | 8,807,140 B1 | | Scatterday |
| D664,636 S | | Robinson et al. | 8,809,261 B2 | | Elsohly et al. |
| 8,251,060 B2 | | White et al. | 8,813,747 B2 | | Gibson et al. |
| 8,282,995 B2 | 10/2012 | Calzia et al. | 8,813,759 B1 | | Horian |
| D670,272 S | 11/2012 | Suzuki | 8,820,330 B2 | 9/2014 | Bellinger et al. |
| D670,659 S | 11/2012 | Ishikawa et al. | 8,829,395 B2 | 9/2014 | Bao |
| 8,308,624 B2 | 11/2012 | Travers et al. | 8,851,068 B2 | 10/2014 | Cohen et al. |
| 8,314,235 B2 | | Dixit et al. | 8,851,081 B2 | | Fernando et al. |
| D672,715 S | | Brunner et al. | 8,851,083 B2 | | Oglesby et al. |
| 8,322,350 B2 | | Lipowicz | 8,857,446 B2 | 10/2014 | • |
| D674,182 S | | Copeland et al. | 8,863,752 B2 | 10/2014 | |
| D674,748 S | | Ferber et al. | 8,869,792 B1 | | |
| , | | | · · · · · · · · · · · · · · · · · · · | | |
| 8,344,693 B2 | | Budziszek et al. | 8,881,737 B2 | | |
| D676,741 S | | van Landsveld et al. | 8,881,738 B2 | | Bryman |
| 8,371,310 B2 | | Brenneise | 8,893,726 B2 | | |
| 8,375,957 B2 | 2/2013 | | 8,897,628 B2 | | |
| 8,381,739 B2 | 2/2013 | Gonda | D718,621 S | | Mitchell et al. |
| 8,387,612 B2 | 3/2013 | Damani et al. | D718,723 S | 12/2014 | Clymer et al. |
| 8,393,331 B2 | 3/2013 | Hon | D718,933 S | 12/2014 | Brown, Jr. |
| 8,402,978 B2 | 3/2013 | Karles et al. | D719,701 S | 12/2014 | Scatterday |
| 8,424,539 B2 | 4/2013 | Braunshteyn et al. | D720,095 S | 12/2014 | • |
| D681,445 S | | van Landsveld et al. | D720,496 S | 12/2014 | |
| D682,090 S | | Scatterday | D720,497 S | 12/2014 | |
| D682,698 S | | Young | 8,899,238 B2 | | Robinson et al. |
| D682,841 S | | Suetake et al. | 8,899,240 B2 | 12/2014 | |
| 8,443,534 B2 | | Goodfellow et al. | , , | | Scatterday et al. |
| , , | | Curti et al. | · · · | 12/2014 | _ |
| D684,683 S | | | 8,910,630 B2 | | |
| 8,464,867 B2 | | Holloway et al. | 8,910,639 B2 | | |
| D686,336 S | | Horian | 8,910,640 B2 | | |
| D686,987 S | | Vanstone et al. | 8,910,641 B2 | | _ |
| D687,042 S | | Yoneta et al. | 8,910,783 B2 | 12/2014 | |
| 8,479,747 B2 | | O'Connell | 8,915,254 B2 | | |
| 8,490,629 B1 | | Shenassa et al. | 8,919,561 B2 | | |
| 8,495,998 B2 | | Schennum | D721,202 S | | |
| 8,499,766 B1 | 8/2013 | Newton | D721,577 S | 1/2015 | Scatterday |
| 8,511,318 B2 | 8/2013 | Hon | 8,925,555 B2 | 1/2015 | Monsees et al. |
| D690,461 S | 9/2013 | Chen | 8,928,277 B2 | 1/2015 | Xiang et al. |
| 8,539,959 B1 | | Scatterday | 8,931,492 B2 | | Scatterday |
| 8,541,401 B2 | | Mishra et al. | D721,972 S | | Brewer et al. |
| D691,324 S | | Saliman | D722,023 S | | Brunner et al. |
| D692,615 S | | | 8,948,578 B2 | | Buchberger |
| 8,550,069 B2 | 10/2013 | | 8,950,395 B2 | | Schennum |
| 8,552,691 B2 | 10/2013 | | 8,955,522 B1 | | Bowen et al. |
| / / | | | , , | | |
| D693,054 S | | | 8,960,199 B2 | | Zhuang et al. |
| 8,578,942 B2 | | Schennum | 8,961,492 B2 | | Imran et al. |
| 8,578,943 B2 | | Luan et al. | 8,963,725 B2 | 2/2015 | _ |
| D695,450 S | 12/2013 | Benassayag et al. | D723,735 S | 3/2015 | Liu |
| D696,051 S | 12/2013 | Scatterday | D723,736 S | 3/2015 | Liu |
| 8,596,460 B2 | | Scatterday | D724,037 S | | Yoshioka |
| 8,646,462 B2 | | Yamada et al. | D725,310 S | | Eksouzian |
| D700,572 S | 3/2014 | | D725,823 S | | Scatterday et al. |
| , | | | · · · · · · · · · · · · · · · · · · · | | • |
| 8,671,952 B2 | | Winterson et al. | 8,967,382 B2 | 3/2015 | |
| 8,678,012 B2 | | Li et al. | 8,973,587 B2 | 3/2015 | |
| 8,689,789 B2 | 4/2014 | Andrus et al. | 8,975,764 B1 | 3/2015 | Abehasera |
| | | | | | |

| 8,978,663 B2 | 3/2015 | Newton | 9,198,466 B2 | 12/2015 | Liu |
|--------------|---------|---------------------|---------------------------------------|---------|----------------------|
| 8,991,402 B2 | 3/2015 | Bowen et al. | 9,204,670 B2 | 12/2015 | Liu |
| 8,993,836 B2 | | Tissier et al. | | | Bowen et al. |
| , , | | | , , | | |
| D726,727 S | 4/2015 | Holz et al. | 9,220,302 B2 | 12/2015 | DePiano et al. |
| 9,004,073 B2 | 4/2015 | Tucker et al. | 9,220,303 B2 | 12/2015 | Li et al. |
| 9,010,335 B1 | | Scatterday | D747,035 S | | Moradian |
| , , | | | * | | |
| 9,016,274 B1 | 4/2015 | White | D747,265 S | 1/2016 | Marini |
| 9,018,899 B2 | 4/2015 | Xiang | D747,546 S | 1/2016 | Liu |
| D728,855 S | 5/2015 | | D747,603 S | | Gaddis |
| , | | | , | | |
| D729,030 S | 5/2015 | Novick et al. | D747,722 S | 1/2016 | webb |
| D729,277 S | 5/2015 | Uchida | D747,852 S | 1/2016 | Meyers |
| D729,366 S | | Kauss et al. | D748,329 S | | Bagai et al. |
| ′ | | | , | | _ |
| D729,439 S | | Scatterday | 9,226,525 B2 | 1/2016 | |
| D729,444 S | 5/2015 | Leidel | 9,226,526 B2 | 1/2016 | Liu |
| D729,445 S | | Leidel | 9,233,217 B2 | 1/2016 | |
| , | | _ | * * | | |
| D730,571 S | 5/2015 | | 9,240,695 B2 | 1/2016 | _ |
| D730,572 S | 5/2015 | Leidel | 9,240,697 B2 | 1/2016 | Xiang |
| 9,022,026 B2 | 5/2015 | Fano | D748,852 S | 2/2016 | • |
| , , | | | • | | |
| 9,022,039 B2 | | Hearn | D748,853 S | | Seibel et al. |
| 9,025,291 B2 | 5/2015 | Xiang | D749,260 S | 2/2016 | Wu |
| 9,028,808 B2 | | Huland | D749,261 S | 2/2016 | Chen |
| , , | | | | | |
| 9,032,968 B2 | 5/2015 | Glasberg et al. | D749,505 S | 2/2016 | Verleur et al. |
| 9,038,626 B2 | 5/2015 | Yamada et al. | D749,510 S | 2/2016 | Liu |
| 9,038,642 B2 | 5/2015 | Lin | D749,781 S | 2/2016 | Lane |
| , , | | | · | | |
| D731,114 S | | | D750,320 S | | |
| D733,142 S | 6/2015 | Solomon et al. | D750,321 S | 2/2016 | Chen |
| D733,356 S | 6/2015 | Leidel | 9,254,002 B2 | 2/2016 | Chong et al. |
| • | | | · · · · · · · · · · · · · · · · · · · | | |
| 9,046,278 B2 | 0/2015 | Koller | 9,254,005 B2 | 2/2016 | |
| 9,050,431 B2 | 6/2015 | Turner et al. | 9,255,277 B2 | 2/2016 | Bakker et al. |
| 9,055,617 B2 | 6/2015 | Thorens et al. | D750,835 S | 3/2016 | Wei |
| , , | | | , | | |
| 9,055,770 B2 | 6/2015 | Liu | D751,250 S | 3/2016 | • |
| 9,060,388 B2 | 6/2015 | Liu | D751,527 S | 3/2016 | Hinokio et al. |
| 9,060,548 B2 | | Zheng et al. | D751,755 S | | Van Riper |
| , , | | • | * | | - |
| 9,066,543 B2 | | Cameron | D751,757 S | 3/2016 | _ |
| 9,072,321 B2 | 7/2015 | Liu | D752,277 S | 3/2016 | Liu |
| 9,072,322 B2 | 7/2015 | Lin | D752,278 S | 3/2016 | Verleur et al. |
| , , | | _ | , | | |
| 9,078,472 B2 | 7/2015 | | D752,279 S | 3/2016 | |
| 9,078,474 B2 | 7/2015 | Thompson | D752,280 S | 3/2016 | Verleur et al. |
| 9,078,475 B2 | | Li et al. | D752,282 S | 3/2016 | Doster |
| · · | | - | • | | |
| 9,089,166 B1 | | Scatterday | D752,283 S | 3/2016 | |
| 9,089,168 B2 | 7/2015 | Liu | D752,284 S | 3/2016 | Doster |
| 9,090,173 B2 | 7/2015 | Oishi | D752,285 S | 3/2016 | Doster |
| , , | | _ | , | | |
| D736,706 S | | Huang et al. | D752,286 S | 3/2016 | |
| D736,995 S | 8/2015 | Recio | D752,808 S | 3/2016 | Hearn |
| D737,508 S | 8/2015 | Lin | 9,271,525 B2 | 3/2016 | Liu |
| , | | | | | |
| 9,095,174 B2 | | Capuano | 9,271,526 B2 | 3/2016 | |
| 9,095,175 B2 | 8/2015 | Terry et al. | 9,271,529 B2 | 3/2016 | Alima |
| 9,099,873 B2 | 8/2015 | Xiang | 9,272,103 B2 | 3/2016 | Storz |
| , , | | | , , | | |
| 9,101,729 B2 | 8/2015 | _ • | 9,277,768 B2 | 3/2016 | |
| 9,113,659 B2 | 8/2015 | Liu | 9,277,769 B2 | 3/2016 | Liu |
| D737,566 S | 9/2015 | Gaddis | 9,281,705 B2 | 3/2016 | Xiang |
| D738,038 S | | Smith | · · · · · · · · · · · · · · · · · · · | | Tucker et al. |
| ŕ | | | 9,282,772 B2 | | |
| D739,973 S * | 9/2015 | Chao D13/108 | 9,282,773 B2 | 3/2016 | Greim et al. |
| 9,131,733 B2 | 9/2015 | Liu | 9,289,014 B2 | 3/2016 | Tucker et al. |
| D741,001 S | | | 9,295,286 B2 | 3/2016 | Shin |
| , | | | * * | | |
| D741,002 S | | | D753,090 S | | Langhammer et al. |
| D741,541 S | 10/2015 | Lıu | D753,338 S | 4/2016 | Chen |
| D742,063 S | 10/2015 | Recio | D753,873 S | 4/2016 | Schuessler |
| D742,064 S | | | D753,874 S | | Moreno Medina et al. |
| , | | | , | | |
| 9,155,336 B2 | 10/2015 | | D754,919 S | | |
| 9,166,424 B2 | 10/2015 | Oakley, Jr. | 9,301,545 B2 | 4/2016 | Li et al. |
| 9,167,849 B2 | | | 9,301,549 B2 | 4/2016 | |
| , , | | | , , | | |
| 9,167,850 B2 | | | 9,302,800 B2 | | Holmes et al. |
| 9,167,852 B2 | 10/2015 | Xiu | 9,302,825 B2 | 4/2016 | Liu |
| 9,167,853 B2 | | | 9,308,336 B2 | | Newton |
| , , | | \mathcal{L} | , , | | |
| , | | Robinson et al. | · · · · · · · · · · · · · · · · · · · | 4/2016 | _ |
| D742,624 S | 11/2015 | Meyers | 9,315,890 B1 | 4/2016 | Frick et al. |
| D743,099 S | | | 9,320,300 B2 | 4/2016 | Hon |
| • | | | | | |
| D744,159 S | | | D755,057 S | | Mutter |
| 9,185,937 B2 | 11/2015 | Liu | D755,506 S | 5/2016 | Neely, III et al. |
| , , | | Stanimirovic et al. | D755,733 S | | Ikegaya et al. |
| , , | | | , | | |
| D744,342 S | 12/2015 | Biasko et al. | D755,735 S | 5/2016 | Kashimoto |
| D744,419 S | 12/2015 | Bowen et al. | D756,030 S | 5/2016 | Chen |
| , | | | , | | |
| D744,696 S | | | D756,031 S | 5/2016 | |
| D745,004 S | 12/2015 | Kım | D756,559 S | 5/2016 | Li |
| D745,388 S | | | D757,352 S | 5/2016 | |
| · | | • | , | | • |
| , | | Solomon et al. | D757,353 S | | Nunnelly et al. |
| 9,198,463 B2 | 12/2015 | Liu | D757,690 S | 5/2016 | Lee et al. |
| 9,198,464 B2 | | | D757,994 S | | Moradian |
| 7,170,TOT DZ | 14/4013 | LIM | DIJI,JJT B | 5/2010 | TTOTACIALI |
| | | | | | |

| D757,995 S | 5/2016 | Liu | 9,456,632 B2 | 10/2016 | Hon |
|--------------|---------|-------------------|--------------|---------|-------------------|
| 9,326,547 B2 | | Tucker et al. | , | 10/2016 | |
| 9,326,549 B2 | 5/2016 | | / / | | Wang et al. |
| , , | | | | | |
| 9,332,787 B2 | 5/2016 | | , , | 10/2016 | Greim et al. |
| 9,345,269 B2 | 5/2016 | Liu | 9,462,832 B2 | 10/2016 | Lord |
| 9,350,102 B2 | 5/2016 | Wu | 9,465,081 B2 | 10/2016 | Xiang |
| 9,350,178 B2 | 5/2016 | | , | 10/2016 | |
| , , | | | , , | | |
| 9,350,181 B2 | 5/2016 | Xiang | D770,395 S | | • |
| 9,351,522 B2 | 5/2016 | Safari | D770,676 S | 11/2016 | Bennett et al. |
| D758,647 S | 6/2016 | Liu | D770,678 S | 11/2016 | Shin |
| • | | | , | | |
| , | 6/2016 | | | | Weigensberg |
| D758,650 S | | | D771,219 S | | |
| D759,031 S | 6/2016 | Ozolins et al. | D771,307 S | 11/2016 | Wu |
| D759,297 S | 6/2016 | Lim | D771,308 S | 11/2016 | Savdar et al. |
| , | | | - | | |
| , | 6/2016 | | D772,477 S | | |
| D760,431 S | 6/2016 | Liu | D772,478 S | 11/2016 | Liu |
| 9,357,802 B2 | 6/2016 | Liu | D772,479 S | 11/2016 | Stowers et al. |
| , , | 6/2016 | | , | 11/2016 | |
| , , | | | / | | |
| , , | 6/2016 | | D772,879 S | | - |
| 9,364,026 B2 | 6/2016 | Liu | D773,114 S | 11/2016 | Leidel et al. |
| 9,364,027 B2 | 6/2016 | Hon | D773,115 S | 11/2016 | Liu |
| , , | | | D773,116 S | | |
| , , | | | , | | |
| , , | 6/2016 | | 9,480,285 B2 | | |
| D760,952 S | 7/2016 | Mayor | 9,480,286 B2 | 11/2016 | Liu |
| D761,488 S | 7/2016 | Alarcon et al. | 9,497,993 B2 | 11/2016 | Vallar |
| D761,999 S | 7/2016 | | 9,497,994 B2 | | |
| • | | | | | |
| D762,000 S | 7/2016 | | , , | 11/2016 | |
| D762,001 S | 7/2016 | Liu | 9,497,997 B2 | 11/2016 | Wu |
| D762,003 S | 7/2016 | Lomeli | 9,497,998 B2 | 11/2016 | Chen |
| D762,326 S | 7/2016 | | 9,497,999 B2 | | |
| , | | | , , | | |
| 9,380,810 B2 | | Rose et al. | , , | 11/2016 | |
| 9,380,812 B2 | 7/2016 | Chung | 9,498,002 B1 | 11/2016 | Soreide |
| 9,383,053 B2 | 7/2016 | | 9,498,588 B2 | 11/2016 | Benassayag et al. |
| 9,385,554 B2 | 7/2016 | | | 11/2016 | , , |
| , , | | | · | | • |
| 9,386,803 B2 | 7/2016 | Burke et al. | / / | 11/2016 | |
| D763,203 S | 8/2016 | Ikegaya et al. | 9,504,279 B2 | 11/2016 | Chen |
| D763,204 S | | Ikegaya et al. | D773.391 S | 12/2016 | Haarburger et al. |
| , | | | • | | • |
| , | | Verleur et al. | • | | Eksouzian D27/101 |
| D764,098 S | 8/2016 | Liu | D773,729 S | 12/2016 | Jordan et al. |
| D764,703 S | 8/2016 | Liu | D774,247 S | 12/2016 | Chen |
| D765,307 S | 8/2016 | Lin | D774,248 S | 12/2016 | Jordan et al. |
| , | 8/2016 | | , | | Turksu et al. |
| , | | | <i>'</i> | | |
| , | 8/2016 | | , | 12/2016 | |
| 9,408,416 B2 | 8/2016 | Monsees et al. | D774,892 S | 12/2016 | Liu |
| 9,413,180 B2 | 8/2016 | Lin | D775,412 S | 12/2016 | Di Bari |
| , , | | | , | | |
| , , | 8/2016 | _ | D775,413 S | | |
| 9,414,628 B2 | 8/2016 | Liu | 9,510,624 B2 | 12/2016 | Li et al. |
| 9,415,929 B2 | 8/2016 | Liu | 9,516,898 B2 | 12/2016 | Liu |
| 9,417,107 B2 | 8/2016 | | , , | 12/2016 | |
| · | | | | | |
| 9,420,831 B2 | 8/2016 | | , , | 12/2016 | |
| 9,427,022 B2 | 8/2016 | Levin et al. | 9,526,273 B2 | | |
| 9,427,023 B2 | 8/2016 | Liu | 9,531,183 B2 | 12/2016 | Xiang |
| | 8/2016 | Liu | D776,051 S | | |
| 9,427,025 B2 | 8/2016 | | D776,162 S | | Beck et al. |
| , , | | | , | | |
| 9,427,026 B2 | 8/2016 | _ | D776,270 S | | Wilcox et al. |
| D765,907 S | 9/2016 | Lıu | D776,338 S * | 1/2017 | Lomeli D27/163 |
| D766,503 S | 9/2016 | Liu | D776,340 S | 1/2017 | Seibel et al. |
| D766,873 S | | Washio | D776,659 S | 1/2017 | |
| , | | | , | | |
| D767,200 S | 9/2016 | | D777,372 S | 1/2017 | |
| D767,201 S | 9/2016 | Starr | D777,976 S | 1/2017 | Mahlmeister |
| D767,820 S | 9/2016 | Jordan et al. | 9,532,598 B2 | 1/2017 | |
| , | | Jordan et al. | 9,532,599 B2 | 1/2017 | |
| , | | | , , | | |
| 9,433,242 B1 | | Buffone | 9,532,601 B2 | 1/2017 | |
| 9,438,049 B2 | 9/2016 | Xiang | 9,532,602 B2 | 1/2017 | Liu |
| , , | | Firman, II et al. | , , | | Conley et al. |
| 9,439,455 B2 | | | 9,532,605 B2 | | |
| , , | | | , , | | |
| , , | 9/2016 | | 9,538,781 B2 | | • |
| 9,440,035 B2 | 9/2016 | Chung | 9,538,783 B2 | 1/2017 | Xiang |
| 9,451,790 B2 | 9/2016 | | 9,538,787 B2 | 1/2017 | |
| · · | | | , , | | |
| 9,451,793 B2 | 9/2016 | | 9,538,789 B2 | 1/2017 | |
| 9,455,579 B2 | 9/2016 | Xiang | 9,545,489 B2 | 1/2017 | Turner et al. |
| , , | 10/2016 | | 9,549,572 B2 | | |
| , | | | , , | | |
| , | | Jones et al. | 9,549,573 B2 | | |
| D768,980 S | 10/2016 | Alexander | 9,554,596 B2 | 1/2017 | Liu |
| , | 10/2016 | | 9,554,597 B2 | 1/2017 | |
| , | | | , , | | |
| D769,519 S | 10/2016 | | 9,555,203 B2 | | Terry et al. |
| D769,520 S | 10/2016 | Hua | D778,493 S | 2/2017 | Scott |
| D769,830 S | 10/2016 | Clymer et al. | D778,831 S | 2/2017 | Chen |
| · | | | · | | |
| D770,088 S | 10/2016 | Abadi et al. | D779,677 S | 2/2017 | Chen |
| | | | | | |

| | - / | _ • | | - (- c · - | |
|--------------|--------|-------------------------|------------------------------------|------------|--------------------------|
| D779,719 S | 2/2017 | | 9,681,688 B1 | | Rinehart et al. |
| D780,179 S | 2/2017 | Bae et al. | 9,682,203 B2 | 6/2017 | Dahne et al. |
| D780,372 S | 2/2017 | Liu | 9,682,204 B2 | 6/2017 | Matsumoto et al. |
| 9,560,882 B2 | 2/2017 | Xiang | 9,682,800 B2 | 6/2017 | Xiang |
| 9,565,873 B2 | 2/2017 | | 9,687,025 B2 | | Cyphert et al. |
| 9,565,876 B2 | 2/2017 | | 9,687,027 B2 | | Poston et al. |
| 9,572,372 B2 | 2/2017 | _ | 9,687,028 B2 | 6/2017 | |
| , , | | | , , | | |
| 9,572,373 B2 | 2/2017 | | 9,687,029 B2 | 6/2017 | |
| 9,572,374 B2 | | Gabbay | D792,021 S | | Beer et al. |
| 9,573,751 B2 | 2/2017 | Liu | D792,022 S | 7/2017 | Lı |
| 9,578,002 B2 | 2/2017 | Wu | D792,644 S | 7/2017 | Jordan et al. |
| 9,578,898 B2 | 2/2017 | Liu | D793,004 S | 7/2017 | Liu |
| D780,990 S | 3/2017 | Liu | 9,693,584 B2 | 7/2017 | Hearn et al. |
| D780,991 S | 3/2017 | | 9,693,586 B2 | 7/2017 | |
| D782,108 S | | Jordan et al. | 9,693,587 B2 | | Plojoux et al. |
| , | | | * | | • |
| D782,728 S | | Pinder Waitaba at al | 9,693,588 B2 | 7/2017 | |
| D782,729 S | | Wright et al. | 9,695,033 B1 | | Alshouse et al. |
| 9,591,876 B2 | 3/2017 | | 9,700,074 B2 | 7/2017 | |
| 9,596,881 B2 | 3/2017 | Chiolini et al. | 9,700,075 B2 | 7/2017 | Liu |
| 9,596,884 B2 | 3/2017 | Liu | 9,700,076 B2 | 7/2017 | Xiang |
| 9,596,885 B2 | 3/2017 | Liu | 9,713,345 B2 | 7/2017 | Farine et al. |
| 9,596,886 B2 | 3/2017 | | 9,713,346 B2 | 7/2017 | |
| 9,596,887 B2 | | Newton | 9,714,878 B2 | | Powers et al. |
| 9,602,646 B2 | | Stanimirovic et al. | D793,620 S | | Bennett et al. |
| , , | | | / | | |
| 9,603,198 B2 | 3/2017 | | 9,717,274 B2 | | |
| 9,603,386 B2 | 3/2017 | | 9,717,275 B2 | 8/2017 | _ |
| 9,603,387 B2 | 3/2017 | Liu | 9,717,276 B2 | 8/2017 | Brammer et al. |
| 9,603,389 B2 | 3/2017 | Chen | 9,717,277 B2 | 8/2017 | Mironov |
| 9,603,390 B2 | 3/2017 | Li et al. | 9,717,278 B2 | 8/2017 | Hon |
| D784,609 S | 4/2017 | Liu | 9,717,279 B2 | 8/2017 | |
| D785,234 S | 4/2017 | | 9,723,872 B2 | 8/2017 | |
| D785,237 S | 4/2017 | | 9,723,872 B2 9,723,873 B2 | 8/2017 | _ |
| , | | | , , | | _ |
| 9,609,893 B2 | | Novak, III et al. | 9,723,874 B2 | 8/2017 | |
| 9,615,605 B2 | 4/2017 | | 9,723,875 B2 | 8/2017 | |
| 9,615,606 B2 | 4/2017 | Liu | 9,723,876 B2 | 8/2017 | Cadieux et al. |
| 9,615,607 B2 | 4/2017 | Liu | 9,723,877 B2 | 8/2017 | Wong et al. |
| 9,620,958 B2 | 4/2017 | Liu | 9,730,471 B2 | 8/2017 | Li et al. |
| 9,622,511 B2 | 4/2017 | Zhu | 9,738,622 B2 | 8/2017 | Dull et al. |
| 9,623,592 B2 | 4/2017 | | 9,763,478 B2 | | Cameron et al. |
| 9,627,661 B2 | 4/2017 | | 9,770,055 B2 | | |
| 9,629,391 B2 | | Dube et al. | | | Leidel et al. |
| , , | | | , | | |
| 9,629,394 B2 | | Aronie et al. | , , | | Fernando et al. |
| D785,859 S | 5/2017 | • | , , | | Davidson et al. |
| D785,862 S | 5/2017 | Wu | 9,806,549 B2 | 10/2017 | Liberti et al. |
| D786,789 S | 5/2017 | Jordan et al. | D802,206 S | 11/2017 | Huang et al. |
| D787,114 S | 5/2017 | Scott | 9,809,567 B2 | | |
| D788,362 S | 5/2017 | | 9,814,263 B2 | | |
| 9,635,886 B2 | 5/2017 | | 9,814,272 B2 | | |
| 9,641,208 B2 | | | 9,820,508 B2 | | |
| , , | | Sela et al. | , , | | |
| 9,642,396 B2 | 5/2017 | | ′ | | Smith D27/162 |
| 9,642,397 B2 | | Dai et al. | | 8/2001 | |
| 9,645,134 B1 | | Farmen et al. | 2001/0032643 A1 | | Hochrainer et al. |
| 9,648,905 B2 | | Levitz et al. | | | Weinstein et al. |
| 9,648,908 B1 | 5/2017 | Rinehart et al. | 2001/0052480 A1 | 12/2001 | Kawaguchi et al. |
| 9,648,909 B2 | 5/2017 | Zhou et al. | 2002/0029779 A1 | 3/2002 | Schmidt et al. |
| 9,655,383 B2 | | Holzherr et al. | 2002/0043554 A1 | | White et al. |
| 9,655,890 B2 | | Hearn et al. | 2002/0078951 A1 | | Nichols et al. |
| 9,661,878 B2 | 5/2017 | _ | 2002/0078551 AT 2002/0088469 A1 | | Rennecamp |
| 9,663,266 B2 | | Schwester | | | Bauer et al. |
| | | | | | |
| D788,697 S | | Verleur et al. | | | Dees et al. |
| , | | Hawes et al. | | | Melker et al. |
| , | | Bennett et al. | | | Jones et al. |
| D790,129 S | 6/2017 | Bennett et al. | 2003/0089377 A1 | 5/2003 | Hajaligol et al. |
| D790,766 S | 6/2017 | Li | 2003/0149372 A1 | 8/2003 | Smith et al. |
| 9,668,517 B2 | 6/2017 | | 2003/0150451 A1 | | Shayan |
| , , | 6/2017 | | 2003/0154991 A1 | | Fournier et al. |
| 9,668,519 B2 | | | 2003/0134331 A1 2004/0031495 A1 | | |
| , , | | | | | ϵ |
| 9,668,520 B2 | | Boldrini | 2004/0050382 A1 | | Goodchild Cross et al |
| 9,668,521 B2 | | 3 | 2004/0099266 A1 | | |
| 9,668,522 B2 | | | 2004/0129280 A1 | | Woodson et al. |
| 9,668,523 B2 | 6/2017 | Tucker et al. | 2004/0149296 A1 | 8/2004 | Rostami et al. |
| 9,675,108 B2 | 6/2017 | | 2004/0149624 A1 | | Wischusen et al. |
| 9,675,113 B2 | 6/2017 | | 2004/0173224 A1 | | Burgard et al. |
| , , | | | | | • |
| 9,675,114 B2 | | Timmermans | 2004/0173229 A1 | | Crooks et al. |
| 9,675,115 B2 | 6/2017 | | 2004/0182403 A1 | | Andersson et al. |
| 9,675,116 B2 | 6/2017 | Liu | 2004/0191322 A1 | 9/2004 | Hansson |
| 9,675,117 B2 | 6/2017 | Li et al. | 2004/0221857 A1 | 11/2004 | Dominguez |
| 9,675,118 B2 | 6/2017 | | 2004/0226569 A1 | | • |
| 9,681,687 B2 | | | 2004/0220303 A1 2004/0237974 A1 | | • |
| 2,001,00/ DZ | 0/201/ | LIU | 2007/023/3/4 AI | 12/2004 | TATIII |
| | | | | | |

| 2005/0016549 A1 | 1/2005 | Banerjee et al. | 2010/0000672 A1 | 1/2010 | Fogle |
|------------------------------------|---------|----------------------------|-------------------------------------|---------|----------------------|
| 2005/0016550 A1 | 1/2005 | Katase | 2010/0006092 A1 | 1/2010 | Hale et al. |
| 2005/0029137 A1 | 2/2005 | Wang | 2010/0024834 A1 | 2/2010 | Oglesby et al. |
| 2005/0034723 A1 | 2/2005 | Bennett et al. | 2010/0031968 A1 | | Sheikh et al. |
| 2005/0061759 A1 | 3/2005 | Doucette | 2010/0059073 A1 | 3/2010 | Hoffmann et al. |
| 2005/0069831 A1 | | St. Charles et al. | 2010/0156193 A1 | | Rhodes et al. |
| 2005/0081601 A1 | | Lawson | 2010/0163063 A1 | | Fernando et al. |
| | | | | | |
| 2005/0090798 A1 | - | Clark et al. | 2010/0163065 A1 | | _ |
| 2005/0118545 A1 | 6/2005 | \mathbf{c} | 2010/0186757 A1 | | Crooks et al. |
| 2005/0145533 A1 | | Seligson | 2010/0200006 A1 | | Robinson et al. |
| 2005/0172976 A1 | 8/2005 | Newman et al. | 2010/0200008 A1 | 8/2010 | Taieb |
| 2005/0229918 A1 | 10/2005 | Shim | 2010/0236562 A1 | 9/2010 | Hearn et al. |
| 2005/0236006 A1 | 10/2005 | Cowan | 2010/0242974 A1 | 9/2010 | Pan |
| 2005/0244521 A1 | 11/2005 | Strickland et al. | 2010/0242976 A1 | 9/2010 | Katayama et al. |
| 2005/0268911 A1 | 12/2005 | Cross et al. | 2010/0275938 A1 | | Roth et al. |
| 2006/0016453 A1 | 1/2006 | | 2010/0276333 A1 | | Couture |
| 2006/0018840 A1 | | Lechuga-Ballesteros et al. | | | |
| 2006/0016616 A1 | | Wischusen | 2010/0307118 711 2010/0307518 A1 | | |
| 2006/0034076 A1 | | Nelson | 2010/0307318 A1 2010/0313901 A1 | | Fernando et al. |
| | | | | | |
| 2006/0150991 A1 | 7/2006 | | 2011/0005535 A1 | | |
| 2006/0185687 A1 | | Hearn et al. | 2011/0011396 A1 | | |
| 2006/0191546 A1 | | Takano et al. | 2011/0030706 A1 | | Gibson et al. |
| 2006/0191548 A1 | 8/2006 | Strickland et al. | 2011/0036346 A1 | | Cohen et al. |
| 2006/0196518 A1 | 9/2006 | Hon | 2011/0036363 A1 | 2/2011 | Urtsev et al. |
| 2006/0254948 A1 | 11/2006 | Herbert et al. | 2011/0041861 A1 | 2/2011 | Sebastian et al. |
| 2006/0255105 A1 | 11/2006 | Sweet | 2011/0049226 A1 | 3/2011 | Moreau et al. |
| 2007/0006889 A1 | | Kobal et al. | 2011/0083684 A1 | | Luan et al. |
| 2007/0045288 A1 | | Nelson | 2011/0094523 A1 | | Thorens et al. |
| 2007/0062548 A1 | | Horstmann et al. | 2011/0097060 A1 | | Buzzetti |
| 2007/0002346 A1 | | | 2011/005/000 A1 2011/0108023 A1 | | McKinney et al. |
| | | Braunshteyn et al. | | | |
| 2007/0089757 A1 | | Bryman | 2011/0120482 A1 | | Brenneise |
| 2007/0098148 A1 | | Sherman | 2011/0126831 A1 | | Fernandez Pernia |
| 2007/0102013 A1 | | Adams et al. | 2011/0155151 A1 | | Newman et al. |
| 2007/0125765 A1 | | Nelson | 2011/0155153 A1 | 6/2011 | Thorens et al. |
| 2007/0144514 A1 | 6/2007 | Yeates et al. | 2011/0162667 A1 | 7/2011 | Burke et al. |
| 2007/0163610 A1 | 7/2007 | Lindell et al. | 2011/0168194 A1 | 7/2011 | Hon |
| 2007/0191756 A1 | 8/2007 | Tapper | 2011/0180433 A1 | 7/2011 | Rennecamp |
| 2007/0215164 A1 | 9/2007 | 11 | 2011/0192397 A1 | | Saskar et al. |
| 2007/0215168 A1 | | Banerjee et al. | 2011/0226236 A1 | | Buchberger |
| 2007/0235046 A1 | | Gedevanishvili | 2011/0226266 A1 | | |
| 2007/0267033 A1 | - | Mishra et al. | 2011/0232654 A1 | | |
| 2007/0207033 A1 2007/0277816 A1 | | Morrison et al. | 2011/0232654 A1 2011/0232655 A1 | | Chan et al. |
| | | | | | |
| 2007/0280652 A1 | | Williams | 2011/0236002 A1 | | Oglesby et al. |
| 2007/0283972 A1 | | Monsees et al. | 2011/0240047 A1 | | Adamic |
| 2007/0295347 A1 | | Paine et al. | 2011/0263947 A1 | | Utley et al. |
| 2008/0000763 A1 | 1/2008 | Cove | 2011/0265806 A1 | | Alarcon et al. |
| 2008/0023003 A1 | 1/2008 | Rosenthal | 2011/0268809 A1 | 11/2011 | Brinkley et al. |
| 2008/0029095 A1 | 2/2008 | Esser | 2011/0277780 A1 | 11/2011 | Terry et al. |
| 2008/0092912 A1 | 4/2008 | Robinson et al. | 2011/0278189 A1 | 11/2011 | Terry et al. |
| 2008/0138423 A1 | 6/2008 | Gonda | 2011/0290248 A1 | | Schennum |
| 2008/0149118 A1 | | Oglesby et al. | 2011/0290269 A1 | | |
| 2008/0207276 A1 | | Burrell | 2011/0293535 A1 | | Kosik et al. |
| 2008/0216828 A1 | | Wensley et al. | 2011/0308521 A1 | | Kofford |
| 2008/0210026 AT | | Rose et al. | 2011/0300321 A1 2011/0315152 A1 | | Hearn et al. |
| 2008/0241233 A1 2008/0257367 A1 | | | | | |
| | | Paterno et al. | 2011/0315701 A1 | | Everson Posso et al |
| 2008/0276947 A1 | 11/2008 | | 2012/0006342 A1 | | Rose et al. |
| 2008/0286340 A1 | | Andersson et al. | 2012/0060853 A1 | | Robinson et al. |
| 2008/0302375 A1 | | Andersson et al. | 2012/0077849 A1 | | Howson et al. |
| 2009/0004249 A1 | 1/2009 | | 2012/0086391 A1 | | |
| 2009/0095287 A1 | | Emarlou | 2012/0111346 A1 | | Rinker et al. |
| 2009/0095311 A1 | 4/2009 | | 2012/0111347 A1 | 5/2012 | Hon |
| 2009/0111287 A1 | 4/2009 | Lindberg et al. | 2012/0118301 A1 | 5/2012 | Montaser |
| 2009/0126745 A1 | 5/2009 | Hon | 2012/0118307 A1 | 5/2012 | Tu |
| 2009/0133691 A1 | 5/2009 | Yamada et al. | 2012/0125353 A1 | 5/2012 | Wollin |
| 2009/0133703 A1 | 5/2009 | Strickland et al. | 2012/0138052 A1 | 6/2012 | Hearn et al. |
| 2009/0133704 A1 | | | 2012/0174914 A1 | | Pirshafiey et al. |
| 2009/0151717 A1 | | Bowen et al. | 2012/0199146 A1 | | Marangos |
| 2009/0131/17 A1 2009/0188490 A1 | 7/2009 | | 2012/0199140 A1 2012/0199663 A1 | | _ |
| 2009/0188490 A1 2009/0230117 A1 | | Fernando et al. | | | `. |
| | | | 2012/0204889 A1 | | |
| 2009/0255534 A1 | 10/2009 | | 2012/0211015 A1 | | Li et al. |
| 2009/0260641 A1 | | Monsees et al. | 2012/0227753 A1 | | Newton |
| 2009/0260642 A1 | 10/2009 | Monsees et al. | 2012/0234315 A1 | 9/2012 | Li et al. |
| 2009/0267252 A1 | 10/2009 | Ikeyama | 2012/0234821 A1 | 9/2012 | Shimizu |
| 2009/0272379 A1 | | Thorens et al. | 2012/0247494 A1 | | Oglesby et al. |
| 2009/02/23/3 A1 | | Nielsen et al. | 2012/0255567 A1 | | Rose et al. |
| 2009/0283103 A1 2009/0288668 A1 | | | 2012/0255507 A1 2012/0260926 A1 | | Tu et al. |
| | | • | | | _ |
| 2009/0288669 A1 | | | 2012/0260927 A1 | | |
| 2009/0293892 A1 | | | 2012/0261286 A1 | | • |
| 2009/0293895 A1 | 12/2009 | Axelsson et al. | 2012/0267383 A1 | 10/2012 | Van Rooyen |
| | | | | | |

| 2012/0279512 A1 | 11/2012 | Hon | 2014/0060556 A1 | 3/2014 | Liu |
|------------------------------------|---------|----------------------|------------------------------------|--------|--------------------|
| 2012/0285475 A1 | 11/2012 | Liu | 2014/0062417 A1 | 3/2014 | Li et al. |
| 2012/0291791 A1 | 11/2012 | Pradeep | 2014/0069424 A1 | 3/2014 | Poston et al. |
| 2012/0298676 A1 | 11/2012 | - | 2014/0069425 A1 | 3/2014 | |
| 2012/02/03/13 A1 | | | 2014/0083442 A1 | | Scatterday |
| | | • | | | _ |
| 2012/0318882 A1 | | Abehasera | 2014/0096782 A1 | | Ampolini et al. |
| 2012/0325227 A1 | | Robinson et al. | 2014/0107815 A1 | | LaMothe |
| 2012/0325228 A1 | 12/2012 | Williams | 2014/0109898 A1 | 4/2014 | Li et al. |
| 2013/0008457 A1 | 1/2013 | Zheng et al. | 2014/0109921 A1 | 4/2014 | Chen |
| 2013/0014755 A1 | | Kumar et al. | 2014/0116455 A1 | 5/2014 | Youn |
| 2013/0014772 A1 | 1/2013 | | 2014/0123989 A1 | | LaMothe |
| 2013/0011772 A1 | | | 2014/0123990 A1 | | Timmermans |
| | | | | | |
| 2013/0023850 A1 | | Imran et al. | 2014/0130796 A1 | 5/2014 | |
| 2013/0025609 A1 | 1/2013 | | 2014/0130797 A1 | 5/2014 | |
| 2013/0037041 A1 | 2/2013 | Worm et al. | 2014/0130816 A1 | 5/2014 | |
| 2013/0042865 A1 | 2/2013 | Monsees et al. | 2014/0130817 A1 | 5/2014 | Li et al. |
| 2013/0047984 A1 | 2/2013 | Dahne et al. | 2014/0144429 A1 | 5/2014 | Wensley et al. |
| 2013/0056012 A1 | 3/2013 | Hearn et al. | 2014/0144453 A1 | 5/2014 | Capuano et al. |
| 2013/0056013 A1 | | Terry et al. | 2014/0150784 A1 | 6/2014 | - |
| 2013/0068239 A1 | 3/2013 | | 2014/0150785 A1 | | Malik et al. |
| | | | | | |
| 2013/0074857 A1 | | Buchberger | 2014/0150810 A1 | 6/2014 | _ |
| 2013/0081642 A1 | 4/2013 | | 2014/0161301 A1 | | Merenda |
| 2013/0087160 A1 | 4/2013 | Gherghe | 2014/0166028 A1 | 6/2014 | Fuisz et al. |
| 2013/0140200 A1 | 6/2013 | Scatterday | 2014/0166029 A1 | 6/2014 | Weigensberg et al. |
| 2013/0146489 A1 | 6/2013 | Scatterday | 2014/0166030 A1 | 6/2014 | Li et al. |
| 2013/0152922 A1 | | Benassayag et al. | 2014/0166032 A1 | | Gindrat |
| 2013/0152924 A1 | 6/2013 | | 2014/0100032 A1 2014/0174458 A1 | 6/2014 | |
| | | | | | |
| 2013/0167854 A1 | 7/2013 | | 2014/0174459 A1 | | Burstyn |
| 2013/0168880 A1 | 7/2013 | | 2014/0175081 A1 | 6/2014 | |
| 2013/0186416 A1 | 7/2013 | Gao et al. | 2014/0178461 A1 | 6/2014 | Rigas |
| 2013/0192618 A1 | 8/2013 | Li et al. | 2014/0182609 A1 | 7/2014 | Liu |
| 2013/0192619 A1 | 8/2013 | Tucker et al. | 2014/0182610 A1 | 7/2014 | Liu |
| 2013/0199528 A1 | | Goodman et al. | 2014/0182611 A1 | 7/2014 | |
| 2013/0213417 A1 | | Chong et al. | 2014/0182612 A1 | 7/2014 | |
| | | | | | |
| 2013/0213418 A1 | | Tucker et al. | 2014/0190477 A1 | | ~ |
| 2013/0213419 A1 | | Tucker et al. | 2014/0190478 A1 | 7/2014 | |
| 2013/0220315 A1 | | Conley et al. | 2014/0190496 A1 | 7/2014 | Wensley et al. |
| 2013/0220847 A1 | 8/2013 | Fisher et al. | 2014/0190501 A1 | 7/2014 | Liu |
| 2013/0228190 A1 | 9/2013 | Weiss et al. | 2014/0190502 A1 | 7/2014 | Liu |
| 2013/0228191 A1 | 9/2013 | Newton | 2014/0190503 A1 | | Li et al. |
| 2013/0233086 A1 | | Besling et al. | 2014/0196716 A1 | 7/2014 | |
| 2013/0233000 A1 2013/0247924 A1 | | Scatterday et al. | 2014/0196718 A1 | | Li et al. |
| | | • | | | |
| 2013/0248385 A1 | | Scatterday et al. | 2014/0196731 A1 | | Scatterday |
| 2013/0255702 A1 | | Griffith, Jr. et al. | 2014/0196733 A1 | 7/2014 | |
| 2013/0263869 A1 | 10/2013 | Zhu | 2014/0196734 A1 | 7/2014 | Liu |
| 2013/0276802 A1 | 10/2013 | Scatterday | 2014/0196735 A1 | 7/2014 | Liu |
| 2013/0284190 A1 | 10/2013 | Scatterday et al. | 2014/0202474 A1 | 7/2014 | Peleg et al. |
| 2013/0284191 A1 | | Scatterday et al. | 2014/0202475 A1 | 7/2014 | . • |
| 2013/0284192 A1 | | Peleg et al. | 2014/0202477 A1 | | Qi et al. |
| 2013/0298905 A1 | | Levin et al. | 2014/0209096 A1 | | Cheyene |
| | | | | | _ |
| 2013/0306065 A1 | | | 2014/0209106 A1 | 7/2014 | |
| 2013/0312742 A1 | | Monsees et al. | 2014/0209107 A1 | 7/2014 | |
| 2013/0319431 A1 | | Cyphert et al. | 2014/0209108 A1 | | Li et al. |
| 2013/0319435 A1 | 12/2013 | Flick | 2014/0209109 A1 | 7/2014 | Larson |
| 2013/0319436 A1 | 12/2013 | Liu | 2014/0216450 A1 | 8/2014 | Liu |
| 2013/0319437 A1 | 12/2013 | Liu | 2014/0216483 A1 | 8/2014 | |
| 2013/0319439 A1 | | Gorelick et al. | 2014/0216484 A1 | 8/2014 | |
| 2013/0319440 A1 | | Capuano | 2014/0224244 A1 | 8/2014 | |
| 2013/0313440 A1 2013/0333700 A1 | | Buchberger | 2014/0224244 A1 2014/0224267 A1 | | Levitz et al. |
| 2013/0333700 A1 2013/0333711 A1 | 12/2013 | | 2014/0224267 A1 2014/0230835 A1 | | Saliman |
| | | | | | |
| 2013/0336358 A1 | | | 2014/0238421 A1 | | Shapiro |
| 2013/0340775 A1 | 12/2013 | Juster et al. | 2014/0238422 A1 | 8/2014 | Plunkett et al. |
| 2013/0342157 A1 | 12/2013 | Liu | 2014/0238423 A1 | 8/2014 | Tucker et al. |
| 2014/0000638 A1 | 1/2014 | Sebastian et al. | 2014/0238424 A1 | 8/2014 | Macko et al. |
| 2014/0007891 A1 | 1/2014 | | 2014/0246031 A1 | 9/2014 | |
| 2014/0007892 A1 | 1/2014 | | 2014/0246033 A1 | | Daehne et al. |
| 2014/0014124 A1 | | Glasberg et al. | 2014/0251324 A1 | | |
| 2014/0014124 A1 2014/0014126 A1 | | _ | 2014/0251324 A1 2014/0251325 A1 | 9/2014 | . • |
| | | Peleg et al. | | | |
| 2014/0020697 A1 | 1/2014 | | 2014/0251356 A1 | 9/2014 | _ |
| 2014/0034071 A1 | 2/2014 | Levitz et al. | 2014/0253144 A1 | 9/2014 | Novak, III et al. |
| 2014/0035391 A1 | 2/2014 | Kitani | 2014/0254055 A1 | 9/2014 | Xiang |
| 2014/0041655 A1 | | Barron et al. | 2014/0259026 A1 | 9/2014 | • |
| 2014/0041658 A1 | | Goodman et al. | 2014/0261408 A1 | | DePiano et al. |
| | | | | | |
| 2014/0048086 A1 | | Zhanghua | 2014/0261474 A1 | 9/2014 | _ |
| 2014/0053856 A1 | 2/2014 | Liu | 2014/0261479 A1 | 9/2014 | Xu et al. |
| 2014/0053858 A1 | 2/2014 | Liu | 2014/0261483 A1 | 9/2014 | Hopps |
| 2014/0060528 A1 | | | 2014/0261486 A1 | | Potter et al. |
| 2014/0060528 A1 | 3/2014 | | 2014/0261480 A1 2014/0261487 A1 | | Chapman et al. |
| | | • | | | - |
| 2014/0060552 A1 | 3/2014 | Conen | 2014/0261488 A1 | 9/2014 | Tucker |
| | | | | | |

| 2014/0261489 A1 | 9/2014 | Cadieux et al. | 2015/0007835 A1 | 1/2015 | Liu |
|-----------------|---------|-------------------|------------------------------------|--------|--------------------|
| 2014/0261490 A1 | 9/2014 | Kane | 2015/0007836 A1 | 1/2015 | Li et al. |
| 2014/0261491 A1 | 9/2014 | Hawes | 2015/0013692 A1 | 1/2015 | Liu |
| 2014/0261492 A1 | 9/2014 | Kane et al. | 2015/0013693 A1 | 1/2015 | Fuisz et al. |
| 2014/0261493 A1 | | Smith et al. | 2015/0013696 A1 | | Plojoux et al. |
| | | | | | |
| 2014/0261494 A1 | | Scatterday | 2015/0013700 A1 | 1/2015 | |
| 2014/0261495 A1 | | Novak, III et al. | 2015/0013701 A1 | 1/2015 | |
| 2014/0261497 A1 | 9/2014 | Liu | 2015/0013702 A1 | 1/2015 | Liu |
| 2014/0261498 A1 | 9/2014 | Liu | 2015/0015187 A1 | 1/2015 | Xiang |
| 2014/0261500 A1 | 9/2014 | | 2015/0020822 A1 | | Janardhan et al. |
| 2014/0270727 A1 | | | | | |
| | | Ampolini et al. | 2015/0020823 A1 | | Lipowicz et al. |
| 2014/0270729 A1 | | DePiano et al. | 2015/0020824 A1 | | Bowen et al. |
| 2014/0270730 A1 | 9/2014 | DePiano et al. | 2015/0020825 A1 | 1/2015 | Galloway et al. |
| 2014/0271946 A1 | 9/2014 | Kobel et al. | 2015/0020826 A1 | 1/2015 | Liu |
| 2014/0274940 A1 | | Mishra et al. | 2015/0020827 A1 | 1/2015 | |
| | | | | | |
| 2014/0276536 A1 | 9/2014 | | 2015/0020828 A1 | 1/2015 | |
| 2014/0278250 A1 | | Smith et al. | 2015/0020829 A1 | 1/2015 | |
| 2014/0278258 A1 | 9/2014 | Shafer | 2015/0020830 A1 | 1/2015 | Koller |
| 2014/0283823 A1 | 9/2014 | Liu | 2015/0020831 A1 | 1/2015 | Weigensberg et al. |
| 2014/0283855 A1 | 9/2014 | Hawes et al. | 2015/0020833 A1 | | Conley et al. |
| 2014/0283856 A1 | 9/2014 | | 2015/0027454 A1 | | Li et al. |
| | | • | | | |
| 2014/0283857 A1 | 9/2014 | _ | 2015/0027455 A1 | | Peleg et al. |
| 2014/0283858 A1 | 9/2014 | Liu | 2015/0027456 A1 | 1/2015 | Janardhan et al. |
| 2014/0290673 A1 | 10/2014 | Liu | 2015/0027457 A1 | 1/2015 | Janardhan et al. |
| 2014/0290676 A1 | 10/2014 | Liu | 2015/0027460 A1 | 1/2015 | Liu |
| 2014/0290677 A1 | 10/2014 | | 2015/0027461 A1 | 1/2015 | |
| | | | | | |
| 2014/0299137 A1 | | Kieckbusch et al. | | | |
| 2014/0299138 A1 | 10/2014 | Xiang | 2015/0027463 A1 | 1/2015 | Lıu |
| 2014/0299139 A1 | 10/2014 | Liu | 2015/0027464 A1 | 1/2015 | Liu |
| 2014/0299140 A1 | 10/2014 | Liu | 2015/0027465 A1 | 1/2015 | Liu |
| 2014/0301721 A1 | | Ruscio et al. | 2015/0027466 A1 | | |
| | | | | | • |
| 2014/0305450 A1 | | . • | 2015/0027467 A1 | 1/2015 | |
| 2014/0305451 A1 | 10/2014 | Lıu | 2015/0027468 A1 | 1/2015 | Li et al. |
| 2014/0305452 A1 | 10/2014 | Liu | 2015/0027469 A1 | 1/2015 | Tucker et al. |
| 2014/0305454 A1 | 10/2014 | Rinker et al. | 2015/0027470 A1 | 1/2015 | Kane et al. |
| 2014/0311503 A1 | 10/2014 | _ | 2015/0027471 A1 | | Feldman et al. |
| | | _ | | | |
| 2014/0311504 A1 | | | 2015/0027472 A1 | 1/2015 | |
| 2014/0311505 A1 | | | 2015/0027473 A1 | | |
| 2014/0332016 A1 | 11/2014 | Bellinger et al. | 2015/0034102 A1 | 2/2015 | Faramarzian |
| 2014/0332017 A1 | | | 2015/0034103 A1 | 2/2015 | Hon |
| 2014/0332018 A1 | | | 2015/0034104 A1 | | |
| 2014/0332019 A1 | | | 2015/0034104 A1 | 2/2015 | |
| | | | | | |
| 2014/0332020 A1 | | | 2015/0034106 A1 | 2/2015 | |
| 2014/0332022 A1 | 11/2014 | Li et al. | 2015/0034107 A1 | 2/2015 | Liu |
| 2014/0334803 A1 | 11/2014 | Li et al. | 2015/0034507 A1 | 2/2015 | Liu |
| 2014/0338680 A1 | | Abramov et al. | 2015/0035540 A1 | 2/2015 | Xiang |
| 2014/0338681 A1 | | _ | 2015/0038567 A1 | | Herkenroth et al. |
| | | | | | |
| 2014/0338682 A1 | | | 2015/0040927 A1 | | Li et al. |
| 2014/0338683 A1 | | _ | 2015/0040928 A1 | | Saydar et al. |
| 2014/0338684 A1 | 11/2014 | Liu | 2015/0040929 A1 | 2/2015 | Hon |
| 2014/0338685 A1 | 11/2014 | Amir | 2015/0041482 A1 | 2/2015 | Liu |
| 2014/0345631 A1 | | Bowen et al. | 2015/0047658 A1 | | Cyphert et al. |
| 2014/0345632 A1 | | | 2015/0047659 A1 | 2/2015 | |
| | | | | | |
| 2014/0345633 A1 | | Talon et al. | 2015/0047660 A1 | 2/2015 | |
| 2014/0345635 A1 | 11/2014 | Rabinowitz et al. | 2015/0047661 A1 | 2/2015 | Blackley et al. |
| 2014/0352177 A1 | 12/2014 | Rehkemper | 2015/0047663 A1 | 2/2015 | Liu |
| 2014/0352705 A1 | | ± | 2015/0053215 A1 | 2/2015 | Liu |
| 2014/0352707 A1 | | | 2015/0053216 A1 | 2/2015 | |
| 2014/0353856 A1 | | | 2015/0053210 A1 | | Steingraber et al. |
| | | _ | | | _ |
| 2014/0353867 A1 | 12/2014 | | 2015/0053220 A1 | | Levy et al. |
| 2014/0354215 A1 | | ~ | 2015/0057341 A1 | 2/2015 | Perry |
| 2014/0355969 A1 | 12/2014 | Stern | 2015/0059779 A1 | 3/2015 | Alarcon et al. |
| 2014/0356607 A1 | 12/2014 | Woodcock | 2015/0059780 A1 | 3/2015 | Davis et al. |
| 2014/0360512 A1 | | | 2015/0059782 A1 | 3/2015 | |
| 2014/0360512 A1 | | • | 2015/0059782 A1 2015/0059783 A1 | 3/2015 | |
| | | | | | |
| 2014/0366894 A1 | 12/2014 | | 2015/0059784 A1 | 3/2015 | |
| 2014/0366895 A1 | | | 2015/0059785 A1 | 3/2015 | Lıu |
| 2014/0366896 A1 | 12/2014 | Li et al. | 2015/0068523 A1 | 3/2015 | Powers et al. |
| 2014/0366897 A1 | 12/2014 | _ | 2015/0068543 A1 | 3/2015 | _ |
| 2014/0366898 A1 | | Monsees et al. | 2015/0068545 A1 | | Moldoveanu et al. |
| | | | | | |
| 2014/0366902 A1 | | Chiolini et al. | 2015/0075545 A1 | 3/2015 | • |
| 2014/0373833 A1 | 12/2014 | Liu | 2015/0075546 A1 | 3/2015 | Kueny, Sr. et al. |
| 2014/0373855 A1 | | | 2015/0078735 A1 | | Cormack |
| | | | | | |
| 2014/0373858 A1 | 12/2014 | | 2015/0080265 A1 | | Elzinga et al. |
| 2014/0376895 A1 | 12/2014 | Han | 2015/0082859 A1 | 3/2015 | Xiang |
| 2014/0378790 A1 | 12/2014 | Cohen | 2015/0083144 A1 | 3/2015 | Xiang |
| 2015/0000682 A1 | | | 2015/0083145 A1 | | Li et al. |
| 2015/0000682 A1 | 1/2015 | | 2015/0083145 A1 | | Goldman et al. |
| | | | | | |
| 2015/0007834 A1 | 1/2015 | Lıu | 2015/0083147 A1 | 3/2015 | Schiff et al. |
| | | | | | |

| 2015/0090256 A1 | 4/2015 | Chung | 2015/0189915 A1 | 7/2015 | Liu |
|------------------------------------|--------|-------------------|-----------------|---------|-------------------|
| 2015/0090277 A1 | 4/2015 | Xiang | 2015/0189918 A1 | 7/2015 | Liu |
| 2015/0090278 A1 | 4/2015 | Schiff et al. | 2015/0189919 A1 | 7/2015 | Liu |
| 2015/0090279 A1 | 4/2015 | Chen | 2015/0189920 A1 | 7/2015 | Liu |
| 2015/0090280 A1 | 4/2015 | | 2015/0196055 A1 | 7/2015 | |
| 2015/0090281 A1 | 4/2015 | | 2015/0196056 A1 | 7/2015 | |
| 2015/0090281 A1 2015/0100441 A1 | | Alarcon et al. | 2015/0196050 A1 | 7/2015 | |
| | | | | | |
| 2015/0101606 A1 | | White | 2015/0196058 A1 | 7/2015 | |
| 2015/0101622 A1 | 4/2015 | | 2015/0196059 A1 | 7/2015 | |
| 2015/0101623 A1 | 4/2015 | Liu | 2015/0196060 A1 | 7/2015 | Wensley et al. |
| 2015/0101625 A1 | 4/2015 | Newton et al. | 2015/0196062 A1 | 7/2015 | Li et al. |
| 2015/0101626 A1 | 4/2015 | Li et al. | 2015/0200385 A1 | 7/2015 | Liu |
| 2015/0101945 A1 | | Scatterday | 2015/0201674 A1 | | Dooly et al. |
| 2015/0101743 AT | | | 2015/0201674 A1 | | |
| | | Cooper | | | |
| 2015/0105455 A1 | | Bjorncrantz | 2015/0201676 A1 | | |
| 2015/0107609 A1 | 4/2015 | | 2015/0208724 A1 | 7/2015 | Wu |
| 2015/0107610 A1 | 4/2015 | Metrangolo et al. | 2015/0208725 A1 | 7/2015 | Tsai |
| 2015/0107611 A1 | 4/2015 | Metrangolo et al. | 2015/0208726 A1 | 7/2015 | Liu |
| 2015/0107612 A1 | 4/2015 | | 2015/0208728 A1 | 7/2015 | Lord |
| 2015/0108019 A1 | 4/2015 | | 2015/0208729 A1 | | Monsees et al. |
| | | | | | |
| 2015/0114407 A1 | | Duncan et al. | 2015/0208730 A1 | | Li et al. |
| 2015/0117842 A1 | | Brammer et al. | 2015/0208731 A1 | _ | Malamud et al. |
| 2015/0122252 A1 | 5/2015 | Frija | 2015/0216232 A1 | 8/2015 | Bless et al. |
| 2015/0122274 A1 | 5/2015 | Cohen et al. | 2015/0216233 A1 | 8/2015 | Sears et al. |
| 2015/0122278 A1 | | Hardgrove et al. | 2015/0216234 A1 | 8/2015 | Chung |
| 2015/0128965 A1 | 5/2015 | • | 2015/0216231 A1 | 8/2015 | _ |
| | | | | | |
| 2015/0128966 A1 | 5/2015 | | 2015/0216237 A1 | | Wensley et al. |
| 2015/0128967 A1 | 5/2015 | Robinson et al. | 2015/0217067 A1 | 8/2015 | Hearn et al. |
| 2015/0128969 A1 | 5/2015 | Chapman et al. | 2015/0217068 A1 | 8/2015 | Wakalopulos |
| 2015/0128970 A1 | 5/2015 | _ • | 2015/0223520 A1 | | Phillips et al. |
| 2015/0128971 A1 | | Verleur et al. | 2015/0223521 A1 | | Menting et al. |
| | | | | | \mathbf{c} |
| 2015/0128972 A1 | | Verleur et al. | 2015/0223522 A1 | | Ampolini et al. |
| 2015/0128973 A1 | 5/2015 | Li et al. | 2015/0223523 A1 | 8/2015 | McCullough |
| 2015/0128976 A1 | 5/2015 | Verleur et al. | 2015/0224268 A1 | 8/2015 | Henry et al. |
| 2015/0128977 A1 | 5/2015 | Li et al. | 2015/0227471 A1 | | Stafford et al. |
| 2015/0136153 A1 | 5/2015 | | 2015/0237914 A1 | 8/2015 | |
| | | | | | |
| 2015/0136155 A1 | | Verleur et al. | 2015/0237917 A1 | 8/2015 | |
| 2015/0136156 A1 | 5/2015 | | 2015/0237918 A1 | 8/2015 | |
| 2015/0136157 A1 | 5/2015 | Liu | 2015/0238723 A1 | 8/2015 | Knudsen |
| 2015/0136158 A1 | 5/2015 | Stevens et al. | 2015/0245654 A1 | 9/2015 | Memari et al. |
| 2015/0142387 A1 | | Alarcon et al. | 2015/0245655 A1 | | Memari et al. |
| 2015/0142145 A1 | | Chang et al. | 2015/0245657 A1 | | Memari et al. |
| | | | | | |
| 2015/0144147 A1 | | Li et al. | 2015/0245658 A1 | | Worm et al. |
| 2015/0144148 A1 | 5/2015 | Chen | 2015/0245659 A1 | 9/2015 | DePiano et al. |
| 2015/0150302 A1 | 6/2015 | Metrangolo et al. | 2015/0245660 A1 | 9/2015 | Lord |
| 2015/0150303 A1 | | Jensen | 2015/0245661 A1 | 9/2015 | Milin |
| 2015/0150305 A1 | | Shenkal | 2015/0245665 A1 | | Memari et al. |
| | | _ | | | |
| 2015/0150306 A1 | 6/2015 | _ | 2015/0245666 A1 | | Memari et al. |
| 2015/0150307 A1 | 6/2015 | | 2015/0245667 A1 | | Memari et al. |
| 2015/0150308 A1 | 6/2015 | Monsees et al. | 2015/0245668 A1 | 9/2015 | Memari et al. |
| 2015/0157053 A1 | 6/2015 | Mayor | 2015/0245669 A1 | 9/2015 | Cadieux et al. |
| 2015/0157054 A1 | 6/2015 | Liu | 2015/0257441 A1 | 9/2015 | Gerkin |
| 2015/0157055 A1 | 6/2015 | Lord | 2015/0257444 A1 | 9/2015 | Chung |
| 2015/0157056 A1 | | Bowen et al. | 2015/0257445 A1 | | Henry, Jr. et al. |
| | | | | | _ |
| 2015/0163859 A1 | | Schneider et al. | 2015/0257446 A1 | 9/2015 | <u> </u> |
| 2015/0164138 A1 | 6/2015 | | 2015/0257447 A1 | | Sullivan |
| 2015/0164141 A1 | | Newton | 2015/0257449 A1 | | Gabbay |
| 2015/0164142 A1 | 6/2015 | Li et al. | 2015/0257451 A1 | 9/2015 | Brannon et al. |
| 2015/0164143 A1 | 6/2015 | Maas | 2015/0258289 A1 | 9/2015 | Henry, Jr. et al. |
| 2015/0164144 A1 | 6/2015 | | | 10/2015 | |
| 2015/0164145 A1 | 6/2015 | | 2015/0272211 A1 | 10/2015 | |
| | | | | | |
| 2015/0164146 A1 | | Li et al. | 2015/0272217 A1 | 10/2015 | |
| 2015/0164147 A1 | 6/2015 | Verleur et al. | 2015/0272218 A1 | 10/2015 | |
| 2015/0167976 A1 | 6/2015 | Recio | 2015/0272220 A1 | 10/2015 | Spinka et al. |
| 2015/0173124 A1 | 6/2015 | Qiu | 2015/0272221 A1 | 10/2015 | Liu |
| 2015/0173417 A1 | | Gennrich et al. | 2015/0272222 A1 | | |
| 2015/0173417 A1 2015/0173419 A1 | 6/2015 | | 2015/0272222 A1 | | - |
| | | | | | • |
| 2015/0173421 A1 | 6/2015 | | 2015/0276262 A1 | | _ |
| 2015/0173422 A1 | 6/2015 | | | 10/2015 | |
| 2015/0181928 A1 | 7/2015 | Liu | 2015/0282524 A1 | 10/2015 | Elhalwani |
| 2015/0181937 A1 | | Dubief et al. | 2015/0282525 A1 | | |
| | | | | | • |
| 2015/0181939 A1 | 7/2015 | | 2015/0282526 A1 | 10/2015 | |
| 2015/0181940 A1 | 7/2015 | Liu | 2015/0282527 A1 | | • |
| 2015/0181941 A1 | 7/2015 | Liu | 2015/0282529 A1 | 10/2015 | Li et al. |
| 2015/0181943 A1 | | Li et al. | 2015/0282530 A1 | | |
| | | | | | |
| 2015/0181944 A1 | | Li et al. | 2015/0288468 A1 | | • |
| 2015/0184846 A1 | | | 2015/0289565 A1 | | |
| 2015/0186837 A1 | 7/2015 | Bianco et al. | 2015/0289567 A1 | 10/2015 | Liu |
| 2015/0189695 A1 | | | 2015/0295921 A1 | | |
| | | <i>-</i> | | | |

| 2015/0296883 A1 | 10/2015 | Wu | 2016/0021771 A1 | 1/2016 | Zhang et al. |
|------------------|---------|--------------------------|-------------------------------------|--------|--------------------|
| 2015/0296885 A1 | 10/2015 | Liu | 2016/0021930 A1 | 1/2016 | Minskoff et al. |
| 2015/0296886 A1 | | Li et al. | 2016/0021931 A1 | | Hawes et al. |
| 2015/0296887 A1 | | - | 2016/0021931 A1 2016/0021932 A1 | | Silvestrini et al. |
| | 10/2015 | _ | | | |
| 2015/0296888 A1 | 10/2015 | Lıu | 2016/0021933 A1 | 1/2016 | Thorens et al. |
| 2015/0296889 A1 | 10/2015 | Liu | 2016/0021934 A1 | 1/2016 | Cadieux et al. |
| 2015/0304401 A1 | 10/2015 | T in | 2016/0029225 A1 | 1/2016 | Hii |
| | | | | | |
| 2015/0304402 A1 | 10/2015 | | 2016/0029694 A1 | | Clements et al. |
| 2015/0305403 A1 | 10/2015 | Coelho Belo Fernandes De | 2016/0029697 A1 | 2/2016 | Shafer |
| | | Carvalho | 2016/0029698 A1 | 2/2016 | Xiang |
| 2015/0205404 4.1 | 10/2015 | | 2016/0029699 A1 | | Li et al. |
| 2015/0305404 A1 | | Rosales | | | |
| 2015/0305406 A1 | 10/2015 | Li et al. | 2016/0029700 A1 | | Li et al. |
| 2015/0305407 A1 | 10/2015 | Li et al. | 2016/0037826 A1 | 2/2016 | Hearn et al. |
| 2015/0305408 A1 | 10/2015 | T in | 2016/0044961 A1 | 2/2016 | Liu |
| | | | 2016/0044964 A1 | 2/2016 | |
| 2015/0305409 A1 | | Verleur et al. | _ | | |
| 2015/0305464 A1 | 10/2015 | Nelson, Jr. et al. | 2016/0044965 A1 | 2/2016 | Lıu |
| 2015/0313275 A1 | 11/2015 | Anderson et al. | 2016/0044966 A1 | 2/2016 | Li et al. |
| 2015/0313282 A1 | | Ademe et al. | 2016/0044967 A1 | 2/2016 | Bowen et al. |
| | | | | | |
| 2015/0313283 A1 | 11/2015 | Collett et al. | 2016/0044968 A1 | | Bowen et al. |
| 2015/0313284 A1 | 11/2015 | Liu | 2016/0049682 A1 | 2/2016 | Won et al. |
| 2015/0313285 A1 | 11/2015 | Waller et al. | 2016/0051716 A1 | 2/2016 | Wheelock |
| 2015/0313287 A1 | | Verleur et al. | 2016/0053988 A1 | | Quintana |
| | | _ | | | · . |
| 2015/0313288 A1 | 11/2015 | Liu | 2016/0057811 A1 | | Alarcon et al. |
| 2015/0313868 A1 | 11/2015 | Morgan | 2016/0058066 A1 | 3/2016 | Banks et al. |
| 2015/0320114 A1 | | • | 2016/0058071 A1 | 3/2016 | Hearn |
| | | | 2016/0058072 A1 | 3/2016 | |
| 2015/0320116 A1 | | | | | |
| 2015/0322451 A1 | 11/2015 | Kudithipudi et al. | 2016/0058073 A1 | 3/2016 | _ |
| 2015/0327595 A1 | 11/2015 | Scatterday | 2016/0058074 A1 | 3/2016 | Liu |
| 2015/0327596 A1 | | Alarcon et al. | 2016/0073677 A1 | 3/2016 | Kappel et al. |
| | | | | | - - |
| 2015/0327597 A1 | 11/2015 | | 2016/0073678 A1 | | Fujisawa et al. |
| 2015/0327598 A1 | 11/2015 | Xiang | 2016/0073690 A1 | 3/2016 | Liu |
| 2015/0328415 A1 | 11/2015 | Minskoff et al. | 2016/0073691 A1 | 3/2016 | Liu |
| 2015/0332379 A1 | | | 2016/0073692 A1 | | Alarcon et al. |
| | | | | | |
| 2015/0333542 A1 | | Alarcon et al. | 2016/0073693 A1 | | Reevell |
| 2015/0333552 A1 | 11/2015 | Alarcon | 2016/0073694 A1 | 3/2016 | Lıu |
| 2015/0333561 A1 | 11/2015 | Alarcon | 2016/0080469 A1 | 3/2016 | Liu |
| 2015/0335071 A1 | | Brinkley et al. | 2016/0081393 A1 | 3/2016 | |
| | | | _ | | |
| 2015/0335072 A1 | | | 2016/0081394 A1 | | Alarcon et al. |
| 2015/0335074 A1 | 11/2015 | Leung | 2016/0081395 A1 | 3/2016 | Thorens et al. |
| 2015/0335075 A1 | | • | 2016/0088874 A1 | 3/2016 | Lipowicz |
| 2015/0342254 A1 | | Mironov et al. | 2016/0089508 A1 | | Smith et al. |
| | | | | | |
| 2015/0342255 A1 | 12/2015 | | 2016/0091194 A1 | 3/2016 | |
| 2015/0342256 A1 | 12/2015 | Chen | 2016/0095352 A1 | 4/2016 | Lıu |
| 2015/0342257 A1 | 12/2015 | Chen | 2016/0095353 A1 | 4/2016 | Liu |
| 2015/0342258 A1 | 12/2015 | | 2016/0095354 A1 | 4/2016 | \mathbf{W}_{11} |
| | | | 2016/0095355 A1 | 4/2016 | |
| 2015/0342259 A1 | | Baker et al. | | | |
| 2015/0351449 A1 | 12/2015 | Righetti | 2016/0095356 A1 | 4/2016 | |
| 2015/0351454 A1 | 12/2015 | Huang | 2016/0095357 A1 | 4/2016 | Burton |
| 2015/0351455 A1 | 12/2015 | | 2016/0099592 A1 | 4/2016 | Gatta et al. |
| | | | 2016/0100456 A1 | 4/2016 | _ |
| 2015/0351456 A1 | | Johnson et al. | | | |
| 2015/0351457 A1 | 12/2015 | Liu | 2016/0100632 A1 | | Debono et al. |
| 2015/0357608 A1 | 12/2015 | Huang | 2016/0101909 A1 | 4/2016 | Schennum et al. |
| 2015/0357839 A1 | | | 2016/0106144 A1 | 4/2016 | Muehlbauer et al. |
| | | | 2016/0106151 A1 | | Swepston et al. |
| 2015/0359258 A1 | | | _ | _ | . - |
| 2015/0359261 A1 | 12/2015 | Li et al. | 2016/0106152 A1 | 4/2016 | |
| 2015/0359262 A1 | 12/2015 | Liu et al. | 2016/0106154 A1 | 4/2016 | Lord |
| 2015/0359263 A1 | | Bellinger | 2016/0106155 A1 | 4/2016 | Reevell |
| | | • | 2016/0106156 A1 | 4/2016 | |
| 2015/0359264 A1 | | Fernando et al. | | | • |
| 2015/0359265 A1 | 12/2015 | | 2016/0106936 A1 | | Kimmel |
| 2015/0366250 A1 | 12/2015 | Landau | 2016/0109115 A1 | 4/2016 | Lipowicz |
| 2015/0366265 A1 | | | 2016/0113323 A1 | 4/2016 | |
| | | | 2016/0113325 A1 | 4/2016 | |
| 2015/0366266 A1 | | _ | | | |
| 2015/0366267 A1 | 12/2015 | Liu | 2016/0113326 A1 | 4/2016 | Li et al. |
| 2015/0366268 A1 | 12/2015 | Shabat | 2016/0113327 A1 | 4/2016 | Wu |
| 2015/0374035 A1 | | Sanchez et al. | 2016/0120218 A1 | 5/2016 | Schennum et al. |
| | | | | | |
| 2015/0374039 A1 | 12/2015 | | 2016/0120220 A1 | | Malgat et al. |
| 2015/0374040 A1 | 12/2015 | | 2016/0120222 A1 | | Bagai et al. |
| 2016/0000147 A1 | 1/2016 | Li et al. | 2016/0120223 A1 | 5/2016 | Keen et al. |
| 2016/0000148 A1 | 1/2016 | _ | 2016/0120224 A1 | 5/2016 | Mishra et al. |
| | | | 2016/0120221 711 2016/0120225 A1 | | Mishra et al. |
| 2016/0000149 A1 | | Scatterday | | | |
| 2016/0002649 A1 | 1/2016 | Kudithipudi et al. | 2016/0120226 A1 | 5/2016 | Rado |
| 2016/0007650 A1 | | Duncan et al. | 2016/0120227 A1 | 5/2016 | Levitz et al. |
| | | | | | Rostami et al. |
| 2016/0007651 A1 | | Ampolini et al. | 2016/0120228 A1 | | |
| 2016/0007653 A1 | 1/2016 | Tu | 2016/0121058 A1 | 5/2016 | Chen |
| 2016/0007654 A1 | 1/2016 | Zhu | 2016/0128384 A1 | 5/2016 | Luciani et al. |
| | | | | | _ |
| 2016/0007655 A1 | | Li et al. | 2016/0128385 A1 | 5/2016 | |
| 2016/0010103 A1 | 1/2016 | Kudithipudi et al. | 2016/0128387 A1 | 5/2016 | Chen |
| 2016/0015082 A1 | 1/2016 | ± | 2016/0128388 A1 | 5/2016 | Liu |
| | | | | | |
| 2016/0020048 A1 | 1/2016 | ware | 2016/0128389 A1 | 3/2010 | Lamb et al. |
| | | | | | |

| | -/ | | | | |
|------------------------------------|--------|---------------------|------------------------------------|---------|-------------------|
| 2016/0128390 A1 | 5/2016 | | 2016/0213060 A1 | 7/2016 | Thaler |
| 2016/0129205 A1 | 5/2016 | Shahaf et al. | 2016/0213061 A1 | 7/2016 | Liu |
| 2016/0131629 A1 | 5/2016 | Cadieux, Jr. et al. | 2016/0213062 A1 | 7/2016 | Doyle |
| 2016/0132898 A1 | 5/2016 | Cadieux et al. | 2016/0213065 A1 | 7/2016 | Wensley et al. |
| 2016/0134143 A1 | 5/2016 | | 2016/0213066 A1 | | Zitzke et al. |
| 2016/0135494 A1 | | Liu et al. | 2016/0213067 A1 | 7/2016 | |
| | | _ | | | |
| 2016/0135500 A1 | | Hearn et al. | 2016/0213866 A1 | 7/2016 | |
| 2016/0135501 A1 | 5/2016 | _ | 2016/0219932 A1 | 8/2016 | |
| 2016/0135503 A1 | 5/2016 | Liu | 2016/0219933 A1 | 8/2016 | Henry, Jr. et al. |
| 2016/0135504 A1 | 5/2016 | Li et al. | 2016/0219934 A1 | 8/2016 | Li et al. |
| 2016/0135505 A1 | 5/2016 | Li et al. | 2016/0219936 A1 | 8/2016 | Alarcon |
| 2016/0135506 A1 | | Sanchez et al. | 2016/0219937 A1 | | _ |
| | | | | | |
| 2016/0135507 A1 | | Thorens et al. | 2016/0219938 A1 | | Mamoun et al. |
| 2016/0136153 A1 | | Jenkins | 2016/0221707 A1 | | Xu et al. |
| 2016/0136213 A1 | 5/2016 | Paul | 2016/0226286 A1 | 8/2016 | Xiang |
| 2016/0138795 A1 | 5/2016 | Meinhart et al. | 2016/0227837 A1 | 8/2016 | Hammel et al. |
| 2016/0143354 A1 | 5/2016 | Liu | 2016/0227838 A1 | 8/2016 | Johnson et al. |
| 2016/0143357 A1 | 5/2016 | | 2016/0227839 A1 | | Zuber et al. |
| | | | | | |
| 2016/0143358 A1 | 5/2016 | | 2016/0227840 A1 | 8/2016 | · · |
| 2016/0143359 A1 | 5/2016 | Xiang | 2016/0227841 A1 | 8/2016 | Li et al. |
| 2016/0143360 A1 | 5/2016 | Sanchez et al. | 2016/0227842 A1 | 8/2016 | Xiang |
| 2016/0143361 A1 | 5/2016 | Juster et al. | 2016/0233705 A1 | 8/2016 | Liu |
| 2016/0143362 A1 | | Boldrini | 2016/0233708 A1 | 8/2016 | _ |
| 2016/0143363 A1 | | Boldrini | 2016/0235109 A1 | 8/2016 | _ |
| | | | | | _ |
| 2016/0143365 A1 | | Liu | 2016/0235120 A1 | | |
| 2016/0144458 A1 | 5/2016 | Boldrini | 2016/0235121 A1 | 8/2016 | Rogan et al. |
| 2016/0150820 A1 | 6/2016 | Liu | 2016/0235124 A1 | 8/2016 | Krietzman |
| 2016/0150821 A1 | 6/2016 | Liu | 2016/0235125 A1 | 8/2016 | Safari |
| 2016/0150823 A1 | 6/2016 | | 2016/0242463 A1 | 8/2016 | _ • |
| | | | | | |
| 2016/0150824 A1 | | Memari et al. | 2016/0242464 A1 | 8/2016 | |
| 2016/0150826 A1 | 6/2016 | Liu | 2016/0242465 A1 | | Zheng et al. |
| 2016/0150827 A1 | 6/2016 | Liu | 2016/0242466 A1 | 8/2016 | Lord et al. |
| 2016/0150828 A1 | 6/2016 | Goldstein et al. | 2016/0242467 A1 | 8/2016 | Vaughn |
| 2016/0150872 A1 | 6/2016 | | 2016/0242468 A1 | 8/2016 | • |
| 2016/0157523 A1 | 6/2016 | _ • | 2016/0249680 A1 | 9/2016 | |
| | | | | | |
| 2016/0157524 A1 | | Bowen et al. | 2016/0249682 A1 | | Leadley et al. |
| 2016/0157525 A1 | 6/2016 | Tucker et al. | 2016/0249683 A1 | 9/2016 | Li et al. |
| 2016/0158782 A1 | 6/2016 | Henry, Jr. et al. | 2016/0249684 A1 | 9/2016 | Liu |
| 2016/0165952 A1 | 6/2016 | | 2016/0255876 A1 | 9/2016 | Rostami |
| 2016/0165955 A1 | 6/2016 | | 2016/0255878 A1 | | Huang et al. |
| | | | | | |
| 2016/0166564 A1 | | Myers et al. | 2016/0260156 A1 | 9/2016 | |
| 2016/0167846 A1 | | Zahr et al. | 2016/0261021 A1 | | Marion et al. |
| 2016/0174076 A1 | 6/2016 | Wu | 2016/0262443 A1 | 9/2016 | Piccirilli et al. |
| 2016/0174609 A1 | 6/2016 | Mironov | 2016/0262445 A1 | 9/2016 | Benjak et al. |
| 2016/0174611 A1 | 6/2016 | Monsees et al. | 2016/0262449 A1 | 9/2016 | Liu |
| 2016/0174613 A1 | | Zuber et al. | 2016/0262450 A1 | 9/2016 | |
| 2016/0174513 A1 2016/0176564 A1 | | Garthaffner | 2016/0262451 A1 | 9/2016 | |
| | | _ | | | |
| 2016/0177285 A1 | | Voerman et al. | 2016/0262452 A1 | 9/2016 | |
| 2016/0183592 A1 | 6/2016 | Liu | 2016/0262453 A1 | 9/2016 | Ampolini et al. |
| 2016/0183593 A1 | 6/2016 | Liu | 2016/0262454 A1 | 9/2016 | Sears et al. |
| 2016/0183594 A1 | 6/2016 | Liu | 2016/0262455 A1 | 9/2016 | Chen |
| 2016/0183595 A1 | | Grimandi et al. | 2016/0262456 A1 | | Borkovec et al. |
| 2016/0183597 A1 | | Li et al. | 2016/0262457 A1 | | Borkovec et al. |
| | | | | | |
| 2016/0189216 A1 | 6/2016 | | 2016/0262459 A1 | | Monsees et al. |
| 2016/0192705 A1 | | Borkovec et al. | 2016/0262526 A1 | | Gonzalez |
| 2016/0192706 A1 | 7/2016 | Kananen | 2016/0268824 A1 | 9/2016 | |
| 2016/0192707 A1 | 7/2016 | Li et al. | 2016/0270441 A1 | 9/2016 | Lewis et al. |
| 2016/0192708 A1 | 7/2016 | Demeritt et al. | 2016/0270442 A1 | 9/2016 | Liu |
| 2016/0192709 A1 | 7/2016 | | 2016/0270443 A1 | 9/2016 | |
| 2016/0192709 A1 2016/0192710 A1 | 7/2016 | | 2016/0270443 A1 2016/0270444 A1 | 9/2016 | _ |
| | | | | | _ |
| 2016/0198759 A1 | | Kuntawala et al. | 2016/0270445 A1 | 9/2016 | |
| 2016/0198763 A1 | | Adkins et al. | 2016/0270446 A1 | | Shenkal et al. |
| 2016/0198765 A1 | 7/2016 | Liu | 2016/0270447 A1 | 9/2016 | Borkovec |
| 2016/0198766 A1 | 7/2016 | Liu | 2016/0271347 A1 | 9/2016 | Raichman |
| 2016/0198767 A1 | 7/2016 | Verleur | 2016/0278163 A1 | 9/2016 | Chen |
| 2016/0198768 A1 | 7/2016 | | 2016/0278431 A1 | 9/2016 | |
| | | | | | |
| 2016/0198769 A1 | 7/2016 | | 2016/0278432 A1 | 9/2016 | |
| 2016/0198770 A1 | | Alarcon | 2016/0278433 A1 | 9/2016 | . • |
| 2016/0200463 A1 | 7/2016 | Hodges et al. | 2016/0278434 A1 | 9/2016 | Liu |
| 2016/0201224 A1 | 7/2016 | Xiang | 2016/0278435 A1 | 9/2016 | Choukroun et al. |
| 2016/0204637 A1 | | Alarcon et al. | 2016/0278436 A1 | | Verleur et al. |
| | | | | | |
| 2016/0205998 A1 | | Matsumoto et al. | 2016/0280450 A1 | | Hearn et al. |
| 2016/0205999 A1 | 7/2016 | Liu | 2016/0284197 A1 | 9/2016 | Liu |
| 2016/0206000 A1 | 7/2016 | Lord et al. | 2016/0285983 A1 | 9/2016 | Liu |
| 2016/0206003 A1 | | Borkovec et al. | 2016/0286856 A1 | 10/2016 | |
| | | | | | |
| 2016/0206005 A1 | | Yamada et al. | 2016/0286858 A1 | 10/2016 | |
| 2016/0206006 A1 | | Li et al. | 2016/0286859 A1 | 10/2016 | |
| 2016/0211693 A1 | 7/2016 | Stevens et al. | 2016/0286860 A1 | 10/2016 | Flayler |
| | | | | | - |
| 2016/0212520 A1 | 7/2016 | Merenda | 2016/0286862 A1 | 10/2016 | Silvetrini |

| | 40/2045 | | | | 4.5 (5.5.4.5 | |
|------------------------------------|---------|-----------------------|--------------|---------------|--------------|------------------|
| 2016/0286863 A1 | 10/2016 | _ | 2016/0345621 | | | Li et al. |
| 2016/0286864 A1 | 10/2016 | | 2016/0345625 | | 12/2016 | |
| 2016/0286865 A1 | | King et al. | 2016/0345626 | | 12/2016 | Wong et al. |
| 2016/0295913 A1 | 10/2016 | Guo et al. | 2016/0345627 | $\mathbf{A}1$ | 12/2016 | Liu |
| 2016/0295915 A1 | 10/2016 | Jochnowitz et al. | 2016/0345628 | A1 | 12/2016 | Sabet |
| 2016/0295916 A1 | 10/2016 | Malgat et al. | 2016/0345630 | $\mathbf{A}1$ | 12/2016 | Mironov et al. |
| 2016/0295917 A1 | 10/2016 | Malgat et al. | 2016/0345631 | $\mathbf{A}1$ | 12/2016 | Monsees et al. |
| 2016/0295918 A1 | 10/2016 | | 2016/0345632 | A 1 | 12/2016 | Lipowicz |
| 2016/0295920 A1 | 10/2016 | | 2016/0345633 | | | DePiano et al. |
| 2016/0295922 A1 | | John et al. | 2016/0345634 | | | Fernando et al. |
| 2016/0295923 A1 | 10/2016 | | 2016/0345636 | | 12/2016 | _ |
| 2016/0295923 A1 2016/0295924 A1 | 10/2016 | | 2016/0343030 | | | _ |
| | | | | | | |
| 2016/0295925 A1 | 10/2016 | | 2016/0353798 | | 12/2016 | |
| 2016/0295926 A1 | 10/2016 | | 2016/0353800 | | | |
| 2016/0297341 A1 | | Wallace et al. | 2016/0353805 | | | Hawes et al. |
| 2016/0302471 A1 | | Bowen et al. | 2016/0356751 | | | |
| 2016/0302483 A1 | 10/2016 | Liu | 2016/0360784 | Al | 12/2016 | Liu |
| 2016/0302484 A1 | 10/2016 | Gupta et al. | 2016/0360785 | $\mathbf{A}1$ | 12/2016 | Bless et al. |
| 2016/0302485 A1 | 10/2016 | Alima | 2016/0360786 | A1 | 12/2016 | Bellinger et al. |
| 2016/0302486 A1 | 10/2016 | Eroch | 2016/0360787 | A1 | 12/2016 | Bailey |
| 2016/0302487 A1 | 10/2016 | Chen | 2016/0360788 | $\mathbf{A}1$ | 12/2016 | Wang |
| 2016/0302488 A1 | 10/2016 | Fernando et al. | 2016/0360789 | A 1 | | Hawes et al. |
| 2016/0309775 A1 | 10/2016 | | 2016/0360790 | | | Calfee et al. |
| 2016/0309779 A1 | 10/2016 | | 2016/0360792 | | | _ |
| 2016/0309780 A1 | | Chen et al. | 2016/0360792 | | | _ |
| | | | | | | |
| 2016/0309781 A1 | | Malgat et al. | 2016/0363570 | | | Blackley |
| 2016/0309783 A1 | | Hopps et al. | 2016/0363917 | | | |
| 2016/0309784 A1 | | Silvestrini et al. | | | | Tucker et al. |
| 2016/0309785 A1 | | Holtz | 2016/0366927 | | | _ |
| 2016/0309786 A1 | 10/2016 | Holtz et al. | 2016/0366928 | A1 | 12/2016 | Liu |
| 2016/0309789 A1 | 10/2016 | Thomas, Jr. | 2016/0366933 | A1 | 12/2016 | Liu |
| 2016/0315488 A1 | 10/2016 | Moon | 2016/0366935 | $\mathbf{A}1$ | 12/2016 | Liu |
| 2016/0316818 A1 | 11/2016 | Liu | 2016/0366936 | $\mathbf{A}1$ | 12/2016 | Liu |
| 2016/0316820 A1 | | | 2016/0366937 | A 1 | 12/2016 | Liu |
| 2016/0316821 A1 | | | 2016/0366938 | | | |
| 2016/0316822 A1 | | _ | 2016/0366939 | | | Alarcon et al. |
| 2016/0310822 A1 | | | 2016/0366940 | | | _ |
| | | | | | | _ |
| 2016/0323404 A1 | | | 2016/0366941 | | | |
| 2016/0324211 A1 | | Yankelevich | 2016/0366942 | | 12/2016 | |
| 2016/0324213 A1 | | | 2016/0366943 | | | |
| 2016/0324215 A1 | 11/2016 | Mironov et al. | 2016/0366945 | | | |
| 2016/0324217 A1 | | Cameron | 2016/0366947 | A1 | 12/2016 | Monsees et al. |
| 2016/0324218 A1 | 11/2016 | Wang et al. | 2016/0367925 | $\mathbf{A}1$ | 12/2016 | Blackley |
| 2016/0324219 A1 | 11/2016 | Li et al. | 2016/0368670 | A1 | 12/2016 | Beardsall |
| 2016/0325055 A1 | 11/2016 | Cameron | 2016/0368677 | $\mathbf{A}1$ | 12/2016 | Parsons et al. |
| 2016/0325858 A1 | | Ampolini et al. | 2016/0370335 | A1 | 12/2016 | Blackley |
| 2016/0331022 A1 | | Cameron | | | | Alarcon et al. |
| 2016/0331023 A1 | | Cameron | 2016/0371464 | | | |
| 2016/0331023 A1 | | Cameron | 2016/0374390 | | | _ |
| 2016/0331024 A1 | | | 2016/0374391 | | | |
| | | | | | | |
| 2016/0331026 A1 | | | 2016/0374392 | | | |
| 2016/0331027 A1 | | Cameron | 2016/0374393 | | 12/2016 | |
| 2016/0331028 A1 | 11/2016 | | 2016/0374394 | | | Hawes et al. |
| 2016/0331029 A1 | | Contreras | 2016/0374395 | | | Jordan et al. |
| 2016/0331030 A1 | | Ampolini et al. | 2016/0374396 | | | Jordan et al. |
| 2016/0331032 A1 | | Malgat et al. | 2016/0374397 | | | Jordan et al. |
| 2016/0331033 A1 | | Hopps et al. | 2016/0374398 | | | |
| 2016/0331034 A1 | 11/2016 | Cameron | 2016/0374399 | | | Monsees et al. |
| 2016/0331035 A1 | 11/2016 | Cameron | 2016/0374400 | $\mathbf{A}1$ | 12/2016 | Monsees et al. |
| 2016/0331037 A1 | 11/2016 | Cameron | 2016/0374401 | A1 | 12/2016 | Liu |
| 2016/0331038 A1 | 11/2016 | Farine et al. | 2017/0000190 | $\mathbf{A}1$ | 1/2017 | Wu |
| 2016/0331039 A1 | 11/2016 | Thorens et al. | 2017/0000192 | A1 | 1/2017 | Li |
| 2016/0331040 A1 | | Nakano et al. | 2017/0006915 | | | |
| 2016/0332754 A1 | | Brown et al. | 2017/0006916 | | | |
| 2016/0334847 A1 | | Cameron | 2017/0006917 | | | Alvarez |
| 2016/0334847 A1 2016/0337141 A1 | | Cameron | 2017/0006917 | | | |
| | | | | | | |
| 2016/0337362 A1 | | Cameron | 2017/0006919 | | | |
| 2016/0337444 A1 | | Cameron Duckler et el | 2017/0006920 | | 1/2017 | |
| 2016/0338402 A1 | | Buehler et al. | 2017/0006921 | | | Lemay et al. |
| 2016/0338405 A1 | 11/2016 | | 2017/0006922 | | | Wang et al. |
| 2016/0338406 A1 | 11/2016 | Liu | 2017/0013875 | $\mathbf{A}1$ | 1/2017 | Schennum et al. |
| 2016/0338407 A1 | 11/2016 | Kerdemelidis | 2017/0013876 | $\mathbf{A}1$ | 1/2017 | Schennum et al. |
| 2016/0338408 A1 | | Guenther, Jr. et al. | 2017/0013878 | | | Schuler et al. |
| 2016/0338409 A1 | 11/2016 | • | 2017/0013880 | | | O'Brien et al. |
| 2016/0338410 A1 | | Batista et al. | 2017/0013881 | | 1/2017 | |
| | | | | | | |
| 2016/0338411 A1 | 11/2016 | | 2017/0013882 | | 1/2017 | |
| 2016/0338412 A1 | | | 2017/0013883 | | | |
| 2016/0338413 A1 | | | 2017/0013885 | | 1/2017 | |
| 2016/0338945 A1 | 11/2016 | Knight | 2017/0014582 | A 1 | 1/2017 | Skoda |
| | 11,2010 | | | 1 1 1 | | |

| 2017/0018000 A1 | 1/2017 Cameron | 2017/0071256 A1 | 3/2017 | Verleur et al. |
|---|--|---|--|--|
| 2017/0019951 A1 | 1/2017 Louveau et al. | 2017/0071257 A1 | 3/2017 | Lin |
| 2017/0020188 A1 | 1/2017 Cameron | 2017/0071258 A1 | | Li et al. |
| | | | | |
| 2017/0020191 A1 | 1/2017 Lamb et al. | 2017/0071260 A1 | | Li et al. |
| 2017/0020193 A1 | 1/2017 Davis et al. | 2017/0071262 A1 | 3/2017 | Liu |
| 2017/0020194 A1 | 1/2017 Rehders | 2017/0079110 A1 | 3/2017 | Plattner |
| 2017/0020195 A1 | 1/2017 Cameron | 2017/0079319 A1 | 3/2017 | Muhammed et al. |
| 2017/0020196 A1 | 1/2017 Cameron | 2017/0079321 A1 | 3/2017 | |
| | | | | |
| 2017/0020197 A1 | 1/2017 Cameron | 2017/0079322 A1 | | Li et al. |
| 2017/0020198 A1 | 1/2017 Naqwi et al. | 2017/0079323 A1 | 3/2017 | Wang |
| 2017/0020201 A1 | 1/2017 Xiang | 2017/0079324 A1 | 3/2017 | Eksouzian |
| 2017/0020791 A1 | 1/2017 Moszner et al. | 2017/0079327 A1 | 3/2017 | Wu et al. |
| 2017/0021969 A1 | 1/2017 Smith et al. | 2017/0079327 A1 | 3/2017 | |
| | | | | |
| 2017/0023952 A1 | 1/2017 Henry, Jr. et al. | 2017/0079329 A1 | 3/2017 | |
| 2017/0027221 A1 | 2/2017 Liu | 2017/0079330 A1 | 3/2017 | Mironov et al. |
| 2017/0027223 A1 | 2/2017 Eksouzian | 2017/0079331 A1 | 3/2017 | Monsees et al. |
| 2017/0027224 A1 | 2/2017 Volodarsky | 2017/0079332 A1 | 3/2017 | Li et al. |
| 2017/0027227 A1 | 2/2017 Lipowicz | 2017/0086496 A1 | | Cameron |
| | | | | |
| 2017/0027228 A1 | 2/2017 Rastogi | 2017/0086497 A1 | | Cameron |
| 2017/0027229 A1 | 2/2017 Cameron | 2017/0086498 A1 | 3/2017 | Daryani |
| 2017/0027230 A1 | 2/2017 Fornarelli | 2017/0086499 A1 | 3/2017 | Mize |
| 2017/0027231 A1 | 2/2017 Xiang | 2017/0086500 A1 | 3/2017 | Li et al. |
| 2017/0027232 A1 | 2/2017 Scheck et al. | 2017/0086501 A1 | | Buehler et al. |
| | | | | _ |
| 2017/0027233 A1 | 2/2017 Mironov | 2017/0086502 A1 | | Hearn et al. |
| 2017/0027234 A1 | 2/2017 Farine et al. | 2017/0086503 A1 | | Cameron |
| 2017/0033568 A1 | 2/2017 Holzherr | 2017/0086504 A1 | 3/2017 | Cameron |
| 2017/0033836 A1 | 2/2017 Bernauer et al. | 2017/0086505 A1 | 3/2017 | Cameron |
| 2017/0035101 A1 | 2/2017 Balder | 2017/0086506 A1 | 3/2017 | |
| | | | | |
| 2017/0035109 A1 | 2/2017 Liu | 2017/0086507 A1 | 3/2017 | |
| 2017/0035110 A1 | 2/2017 Keen | 2017/0086508 A1 | 3/2017 | Mironov et al. |
| 2017/0035111 A1 | 2/2017 Slurink et al. | 2017/0091490 A1 | 3/2017 | Cameron |
| 2017/0035112 A1 | 2/2017 Thorens | 2017/0091853 A1 | 3/2017 | Cameron |
| 2017/0035113 A1 | 2/2017 Thorens | 2017/0092106 A1 | | Cameron |
| | | | | |
| 2017/0035114 A1 | 2/2017 Lord | 2017/0092900 A1 | 3/2017 | |
| 2017/0035115 A1 | 2/2017 Monsees et al. | 2017/0093960 A1 | 3/2017 | Cameron |
| 2017/0035117 A1 | 2/2017 Lin | 2017/0093981 A1 | 3/2017 | Cameron |
| 2017/0035118 A1 | 2/2017 Liu | 2017/0094998 A1 | 4/2017 | Bernauer et al. |
| 2017/0035119 A1 | 2/2017 Otto | 2017/0094999 A1 | | Hearn et al. |
| 2017/0033113 A1 2017/0041646 A1 | 2/2017 Otto 2/2017 Pizzurro et al. | | | |
| | | 2017/0095000 A1 | | Spirito et al. |
| 2017/0042225 A1 | 2/2017 Liu | 2017/0095001 A1 | 4/2017 | |
| 2017/0042227 A1 | 2/2017 Gavrielov et al. | 2017/0095002 A1 | 4/2017 | Silvestrini |
| 2017/0042228 A1 | 2/2017 Liu | 2017/0095003 A1 | 4/2017 | Mironov |
| 2017/0042229 A1 | 2/2017 Liu | 2017/0095004 A1 | 4/2017 | |
| 2017/0042230 A1 | 2/2017 End 2/2017 Cameron | 2017/0095001 A1 | | Monsees et al. |
| | | | | |
| 2017/0042231 A1 | 2/2017 Cameron | 2017/0095518 A1 | | Bjorncrantz |
| 2017/0042242 A1 | 2/2017 Hon | 2017/0095623 A1 | 4/2017 | Trzecieski |
| 2017/0042243 A1 | 2/2017 Plojoux et al. | 2017/0099877 A1 | 4/2017 | Worm et al. |
| 2017/0042245 A1 | 2/2017 Buchberger et al. | 2017/0099879 A1 | 4/2017 | Heid1 |
| 2017/0042246 A1 | | | | Hawes |
| ZU1//UUTZZTU /\lambda1 | // /!!! / | | | |
| | 2/2017 Lau et al. | 2017/0099880 A1 | | Zeitim et al. |
| 2017/0042247 A1 | 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 | 4/2017 | TT 7 11 . 1 |
| 2017/0042247 A1 2017/0042248 A1 | 2/2017 Xiang 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 | 4/2017 4/2017 | Wallman et al. |
| 2017/0042247 A1 | 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 | 4/2017 4/2017 | Wallman et al. Scarpulla |
| 2017/0042247 A1 2017/0042248 A1 | 2/2017 Xiang 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 | 4/2017 4/2017 4/2017 | |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 | 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 2017/0049149 A1 2017/0049150 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 | 2/2017 Xiang 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu 2/2017 Liu 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0048691 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Liu 2/2017 Liu 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049151 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049155 A1 2017/0049156 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Wang et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112192 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0049156 A1 2017/0050798 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Guo et al. 2/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112191 A1 2017/0112191 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0050798 A1 2017/0055577 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Batista | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112191 A1 2017/0112192 A1 2017/0112193 A1 2017/0112196 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055579 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Uu 2/2017 Liu 2/2017 Batista 2/2017 Liu 2/2017 Kuna et al. 3/2017 Batista 3/2017 Kuna et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 2017/0112191 A1 2017/0112191 A1 2017/0112191 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0050798 A1 2017/0055577 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Batista | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112191 A1 2017/0112192 A1 2017/0112193 A1 2017/0112196 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055579 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Uu 2/2017 Liu 2/2017 Batista 2/2017 Liu 2/2017 Kuna et al. 3/2017 Batista 3/2017 Kuna et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 2017/0112191 A1 2017/0112191 A1 2017/0112191 A1 | 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049153 A1 2017/0049155 A1 2017/0049155 A1 2017/0049156 A1 2017/0055577 A1 2017/0055579 A1 2017/0055586 A1 2017/0055588 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Liu 3/2017 Cameron | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049151 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055579 A1 2017/0055586 A1 2017/0055588 A1 2017/0055589 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055588 A1 2017/0055588 A1 2017/0055589 A1 2017/0055589 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Uudewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/01012182 A1 2017/0112182 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049151 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055579 A1 2017/0055586 A1 2017/0055588 A1 2017/0055589 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055588 A1 2017/0055588 A1 2017/0055589 A1 2017/0055589 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Uudewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/01012182 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112193 A1 2017/0112193 A1 2017/0112196 A1 2017/0112197 A1 2017/0113819 A1 2017/0113819 A1 2017/0117654 A1 2017/0118292 A1 2017/0118584 A1 2017/0118584 A1 2017/0119040 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron |
| 2017/0042247 A1 2017/0042248 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055579 A1 2017/0055586 A1 2017/0055589 A1 2017/0055589 A1 2017/0064994 A1 2017/0064999 A1 2017/0064999 A1 2017/0064999 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Xu et al. 3/2017 Yu et al. 3/2017 Sears et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 2017/0112193 A1 2017/0112196 A1 2017/0112197 A1 2017/0113819 A1 2017/0113819 A1 2017/0117654 A1 2017/0118292 A1 2017/0118584 A1 2017/0118584 A1 2017/0119040 A1 2017/0119040 A1 | 4/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger A24F 15/00 |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055579 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Yu et al. 3/2017 Yu et al. 3/2017 Sears et al. 3/2017 Sears et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger A24F 15/00 Blandino et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0049756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055588 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 2017/006556 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Sears et al. 3/2017 Sears et al. 3/2017 Li et al. 3/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112192 A1 2017/0112193 A1 2017/0112194 A1 2017/0112197 A1 2017/0113819 A1 2017/0113819 A1 2017/0118292 A1 2017/0118584 A1 2017/0119040 A1 2017/0119040 A1 2017/0119040 A1 2017/0119040 A1 2017/0119050 A1 2017/0119050 A1 | 4/2017 5/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger A24F 15/00 Blandino et al. Williams et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0047756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055579 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Kue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Liu 2/2017 Ertugrul 2/2017 Liu 2/2017 Tue et al. 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Liu 2/2017 Fernando et al. 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Perez et al. 3/2017 Sears et al. 3/2017 Li et al. 3/2017 Liu | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105454 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0112182 A1 2017/0112190 A1 2017/0112190 A1 2017/0112191 A1 | 4/2017 5/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger A24F 15/00 Blandino et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0049756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055579 A1 2017/0055588 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 2017/006556 A1 2017/006556 A1 2017/006556 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Uiu 2/2017 Uiu 2/2017 Batista 2/2017 Liu 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Xu et al. 3/2017 Sears et al. 3/2017 Li et al. 3/2017 Liu 3/2017 Liu 3/2017 Liu et al. | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112192 A1 2017/0112193 A1 2017/0112193 A1 2017/0112196 A1 2017/0113819 A1 2017/0113819 A1 2017/0113829 A1 2017/0118584 A1 2017/0118584 A1 2017/0119040 A1 2017/0119040 A1 2017/0119040 A1 2017/0119050 A1 2017/0119050 A1 2017/0119050 A1 2017/0119053 A1 | 4/2017 5/2017 5/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger A24F 15/00 Blandino et al. Williams et al. Henry, Jr. et al. |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046738 A1 2017/0046738 A1 2017/0049756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049153 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055586 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Xu et al. 3/2017 Sears et al. 3/2017 Li et al. 3/2017 Liu 3/2017 Liu 3/2017 Li et al. 3/2017 Ampolini et al. 3/2017 Goch | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105453 A1 2017/0105453 A1 2017/0105454 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112192 A1 2017/0112193 A1 2017/0112193 A1 2017/0112197 A1 2017/0113819 A1 2017/0113819 A1 2017/011389 A1 2017/0118584 A1 2017/0118584 A1 2017/0119040 A1 2017/0119040 A1 2017/0119040 A1 2017/0119050 A1 2017/0119050 A1 2017/0119053 A1 2017/0119053 A1 2017/0119054 A1 | 4/2017 5/2017 5/2017 5/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger |
| 2017/0042247 A1 2017/0042248 A1 2017/0042250 A1 2017/0046357 A1 2017/0046722 A1 2017/0046738 A1 2017/0049756 A1 2017/0049149 A1 2017/0049150 A1 2017/0049151 A1 2017/0049152 A1 2017/0049153 A1 2017/0049154 A1 2017/0049155 A1 2017/0049156 A1 2017/0049156 A1 2017/0055577 A1 2017/0055577 A1 2017/0055579 A1 2017/0055588 A1 2017/0055588 A1 2017/0055589 A1 2017/0064994 A1 2017/0064994 A1 2017/0065000 A1 2017/0065001 A1 2017/006556 A1 2017/006556 A1 2017/006556 A1 | 2/2017 Xiang 2/2017 Takeuchi et al. 2/2017 Cameron 2/2017 Ertugrul 2/2017 Cameron 2/2017 Xiang 2/2017 Xiang 2/2017 Liu 2/2017 Carty 2/2017 Xue et al. 2/2017 Xue et al. 2/2017 Liu 2/2017 Guo et al. 2/2017 Batista 2/2017 Liu 2/2017 Wang et al. 2/2017 Ludewig et al. 3/2017 Batista 3/2017 Kuna et al. 3/2017 Kuna et al. 3/2017 Cameron 3/2017 Cameron 3/2017 Fernando et al. 3/2017 Xu et al. 3/2017 Xu et al. 3/2017 Sears et al. 3/2017 Li et al. 3/2017 Liu 3/2017 Liu 3/2017 Li et al. 3/2017 Ampolini et al. 3/2017 Goch | 2017/0099880 A1 2017/0101256 A1 2017/0102013 A1 2017/0105448 A1 2017/0105449 A1 2017/0105450 A1 2017/0105451 A1 2017/0105452 A1 2017/0105453 A1 2017/0105455 A1 2017/0108210 A1 2017/0108840 A1 2017/0109877 A1 2017/0112182 A1 2017/0112192 A1 2017/0112193 A1 2017/0112193 A1 2017/0112196 A1 2017/0113819 A1 2017/0113819 A1 2017/0113829 A1 2017/0118584 A1 2017/0118584 A1 2017/0119040 A1 2017/0119040 A1 2017/0119040 A1 2017/0119050 A1 2017/0119050 A1 2017/0119050 A1 2017/0119053 A1 | 4/2017 5/2017 5/2017 5/2017 5/2017 | Scarpulla Hearn et al. Reed et al. Fornarelli Mironov et al. Li et al. Li et al. Qiu Meinhart et al. Hawes et al. Peleg et al. Arnold Buchberger Shan Chen Sur et al. Li et al. Marz Cruz Xiang Xiang Cameron Oligschlaeger |

| 2015/0110055 | 5 (00 1 5 | - · | 2017/0100620 | = (0.0.4.= | |
|------------------------------------|-------------------------|-------------------------|------------------------------------|------------|----------------------------|
| 2017/0119057 A1 | 5/2017 | | 2017/0188629 A1 | | Dickens et al. |
| 2017/0119058 A1 | | Cameron | 2017/0188631 A1 | 7/2017 | |
| 2017/0119060 A1 | | Li et al. | 2017/0188632 A1 | 7/2017 | |
| 2017/0119061 A1 | 5/2017 | Li et al. | 2017/0188634 A1 | 7/2017 | Plojoux et al. |
| 2017/0127722 A1 | 5/2017 | Davis et al. | 2017/0188635 A1 | 7/2017 | Force et al. |
| 2017/0127723 A1 | 5/2017 | Wu | 2017/0188636 A1 | 7/2017 | Li et al. |
| 2017/0127724 A1 | 5/2017 | Liu | 2017/0196263 A1 | 7/2017 | Sur |
| 2017/0127725 A1 | 5/2017 | Buchberger et al. | 2017/0196264 A1 | 7/2017 | Liu |
| 2017/0127726 A1 | | Xiang | 2017/0196265 A1 | 7/2017 | |
| 2017/0127728 A1 | | Li et al. | 2017/0196267 A1 | | Zou et al. |
| 2017/0127720 A1 | | | 2017/0196267 A1 | | Reevell |
| | | Van Tassell, III et al. | | | |
| 2017/0135397 A1 | | Buehler et al. | 2017/0196269 A1 | | Bernauer et al. |
| 2017/0135398 A1 | | Scott et al. | 2017/0196270 A1 | | Vick et al. |
| 2017/0135399 A1 | | Gavrielov et al. | 2017/0196271 A1 | | Levitz et al. |
| 2017/0135400 A1 | 5/2017 | Liu | 2017/0196272 A1 | | Li et al. |
| 2017/0135401 A1 | 5/2017 | Dickens | 2017/0196273 A1 | 7/2017 | Qiu |
| 2017/0135402 A1 | 5/2017 | Zitzke | 2017/0202265 A1 | 7/2017 | Hawes et al. |
| 2017/0135403 A1 | 5/2017 | Liu | 2017/0202266 A1 | 7/2017 | Sur |
| 2017/0135407 A1 | 5/2017 | Cameron | 2017/0202267 A1 | 7/2017 | Liu |
| 2017/0135408 A1 | | Cameron | 2017/0202268 A1 | | Li et al. |
| 2017/0135409 A1 | | Cameron | 2017/0207499 A1 | | Leadley |
| 2017/0135409 A1 2017/0135410 A1 | | Cameron | 2017/0207455 A1 | | Branton et al. |
| | | | | | |
| 2017/0135411 A1 | | Cameron | 2017/0208858 A1 | 7/2017 | |
| 2017/0135412 A1 | | Cameron | 2017/0208862 A1 | | Li et al. |
| 2017/0136193 A1 | | | 2017/0208863 A1 | | Davis et al. |
| 2017/0136194 A1 | 5/2017 | Cameron | 2017/0208864 A1 | 7/2017 | Anderson, Jr. et al. |
| 2017/0136301 A1 | 5/2017 | Cameron | 2017/0208865 A1 | 7/2017 | Nettenstrom et al. |
| 2017/0143035 A1 | 5/2017 | Pucci | 2017/0208866 A1 | 7/2017 | Liu |
| 2017/0143037 A9 | 5/2017 | Larson | 2017/0208867 A1 | 7/2017 | Li et al. |
| 2017/0143038 A1 | 5/2017 | Dickens | 2017/0208868 A1 | 7/2017 | Li et al. |
| 2017/0143040 A1 | 5/2017 | | 2017/0208869 A1 | | Li et al. |
| 2017/0143043 A1 | 5/2017 | | 2017/0208870 A1 | 7/2017 | |
| 2017/0143043 A1 2017/0143917 A1 | | Cohen et al. | 2017/0208870 A1 2017/0208882 A1 | | Lambertz |
| | | | | | |
| 2017/0144827 A1 | | Batista | 2017/0214261 A1 | | Gratton |
| 2017/0146005 A1 | | Edelen | 2017/0215470 A1 | | Piccirilli et al. |
| 2017/0150753 A1 | | Macko | 2017/0215473 A1 | | Nakano et al. |
| 2017/0150754 A1 | 6/2017 | Lin | 2017/0215474 A1 | 8/2017 | Li |
| 2017/0150755 A1 | 6/2017 | Batista | 2017/0215476 A1 | 8/2017 | Dickens et al. |
| 2017/0150756 A1 | 6/2017 | Rexroad et al. | 2017/0215477 A1 | 8/2017 | Reevell |
| 2017/0150758 A1 | 6/2017 | Fernando et al. | 2017/0215478 A1 | 8/2017 | Harrison et al. |
| 2017/0156397 A1 | 6/2017 | Sur et al. | 2017/0215479 A1 | 8/2017 | Kies |
| 2017/0156398 A1 | | Sur et al. | 2017/0215480 A1 | 8/2017 | |
| 2017/0156400 A1 | 6/2017 | _ | 2017/0215481 A1 | | Li et al. |
| 2017/0156401 A1 | 6/2017 | | 2017/0215482 A1 | | Levitz et al. |
| 2017/0156401 A1 | 6/2017 | | 2017/0215482 A1 | | Li et al. |
| | | | | | |
| 2017/0156403 A1 | | Gill et al. | 2017/0215484 A1 | 8/2017 | $\boldsymbol{\varepsilon}$ |
| 2017/0156404 A1 | | Novak, III et al. | 2017/0215485 A1 | 8/2017 | |
| 2017/0156408 A1 | | Li et al. | 2017/0217607 A1 | | Slurink |
| 2017/0158436 A1 | 6/2017 | Slurink | 2017/0219199 A1 | 8/2017 | Lou et al. |
| 2017/0162523 A1 | 6/2017 | Hu | 2017/0219391 A1 | 8/2017 | Lin et al. |
| 2017/0162979 A1 | 6/2017 | Liu | 2017/0222468 A1 | 8/2017 | Schennum et al. |
| 2017/0164655 A1 | 6/2017 | Chen | 2017/0224013 A1 | 8/2017 | Huang |
| 2017/0164656 A1 | 6/2017 | Eusepi et al. | 2017/0224014 A1 | | _ |
| 2017/0164657 A1 | | Batista | 2017/0224016 A1 | | Reevell |
| 2017/0164658 A1 | | Lin et al. | 2017/0224017 A1 | | Li et al. |
| 2017/0170439 A1 | | Jarvis et al. | 2017/0224018 A1 | | Li et al. |
| 2017/0172204 A1 | | Kane et al. | 2017/0224022 A1 | 8/2017 | |
| 2017/0172204 A1 | | Chang et al. | 2017/0224022 A1 | | Lin et al. |
| 2017/0172203 A1 2017/0172207 A1 | | Liu | 2017/0224023 A1 2017/0224024 A1 | | Jochnowitz et al. |
| 2017/0172207 A1 2017/0172208 A1 | | Mironov | 2017/0224024 A1 2017/0229885 A1 | | Bernauer |
| | | | | | |
| 2017/0172209 A1 | | Saydar et al. | 2017/0229888 A1 | 8/2017 | |
| 2017/0172213 A1 | | Hon | 2017/0231266 A1 | | Mishra et al. |
| 2017/0172214 A1 | | Li et al. | 2017/0231267 A1 | | Shi et al. |
| 2017/0172215 A1 | | Li et al. | 2017/0231269 A1 | | Besso et al. |
| 2017/0181223 A1 | 6/2017 | Sur et al. | 2017/0231273 A1 | 8/2017 | Xiang |
| 2017/0181467 A1 | 6/2017 | Cameron | 2017/0231275 A1 | | Guenther |
| 2017/0181468 A1 | 6/2017 | Bowen et al. | 2017/0231276 A1 | 8/2017 | Mironov et al. |
| 2017/0181470 A1 | 6/2017 | Li | 2017/0231277 A1 | 8/2017 | Mironov et al. |
| 2017/0181471 A1 | | Phillips et al. | 2017/0231278 A1 | | Mironov et al. |
| 2017/0181473 A1 | | Batista et al. | 2017/0231279 A1 | | Watson |
| 2017/0181473 A1 2017/0181474 A1 | | | | | |
| | | Cameron | 2017/0231280 A1 | 8/2017 | |
| 2017/0181475 A1 | | Cameron | 2017/0231281 A1 | | Hatton et al. |
| 2017/0181476 A1 | | Li et al. | 2017/0231282 A1 | | Bowen et al. |
| 2017/0181928 A1 | 6/2017 | Collins et al. | 2017/0231283 A1 | 8/2017 | Gadas |
| 2017/0185364 A1 | 6/2017 | Cameron | 2017/0231284 A1 | 8/2017 | Newns |
| 2017/0186122 A1 | | Levings et al. | 2017/0231285 A1 | | Holzherr et al. |
| 2017/0188626 A1 | | | 2017/0231285 A1 | | |
| 2017/0188627 A1 | 7/2017 | | 2017/0231230 A1 2017/0233114 A1 | | Christensen et al. |
| | | | | | |
| 2017/0188628 A1 | //ZU1/ | Montgomery | 2017/0238596 A1 | o/ZU1/ | Matsumoto et al. |
| | | | | | |

| 2017/0238605 | A 1 | 8/2017 | Matsumoto et al. | 20 | 17/0295846 A1 | 10/2017 | Lin |
|--------------|---------------|---------|--------------------|------------------------|----------------|----------|---------------------|
| 2017/0238606 | | - | Matsumoto et al. | | 17/0295847 A1 | 10/2017 | |
| 2017/0238608 | | | Matsumoto et al. | | 17/0295847 AT | | LaMothe |
| 2017/0238609 | | | Schlipf | | 17/0295849 A1 | | Cadieux et al. |
| | | | ± | | | | |
| 2017/0238611 | | | Buchberger | | 17/0297892 A1 | 10/2017 | |
| 2017/0238612 | | | Daryani et al. | | 17/0301898 A1 | | Lin et al. |
| 2017/0238613 | | | Suess et al. | | 17/0302089 A1 | | Bernauer et al. |
| 2017/0238614 | $\mathbf{A}1$ | 8/2017 | Li et al. | 20 | 17/0302324 A1 | 10/2017 | Stanimirovic et al. |
| 2017/0238617 | $\mathbf{A}1$ | 8/2017 | Scatterday | 20 | 17/0303597 A1 | 10/2017 | Tsui |
| 2017/0241857 | $\mathbf{A}1$ | 8/2017 | Hearn et al. | 20 | 17/0311648 A1 | 11/2017 | Gill et al. |
| 2017/0245543 | A 1 | 8/2017 | Karles et al. | 20 | 17/0318860 A1 | 11/2017 | Adair |
| 2017/0245546 | | 8/2017 | | | 17/0318861 A1 | | |
| 2017/0245547 | | | Lipowicz | | 17/0325503 A1 | 11/2017 | |
| 2017/0245550 | | | Freelander | | 17/0325505 AT | | |
| | | | | | | | |
| 2017/0245551 | | | Reevell | | 17/0325506 A1 | | |
| 2017/0245554 | | | Perez et al. | | 17/0332695 A1 | | |
| 2017/0246399 | | | Forlani et al. | | 17/0333415 A1 | 11/2017 | |
| 2017/0246405 | | | Wensley et al. | 20 | 17/0333650 A1 | 11/2017 | Buchberger et al. |
| 2017/0246407 | A 1 | 8/2017 | Matsumoto et al. | 20 | 17/0333651 A1 | 11/2017 | Qiu |
| 2017/0250552 | A 1 | 8/2017 | Liu | 20 | 17/0334605 A1 | 11/2017 | Murphy et al. |
| 2017/0251714 | A 1 | 9/2017 | Mishra et al. | | 17/0367406 A1 | | 1 • |
| 2017/0251718 | A1 | 9/2017 | Armoush et al. | 20 | 17/0507400 711 | 12/2017 | Scharci et al. |
| 2017/0251719 | | | Cyphert et al. | | FOREX | ar bimbi | |
| 2017/0251713 | | | Rostami et al. | | FOREI | GN PATEI | NT DOCUMENTS |
| 2017/0251721 | | | Kobal et al. | | | | |
| | | | | AU | 201420 |)6215 A1 | 8/2014 |
| 2017/0251723 | | | Kobal et al. | AU | |)8287 A1 | 8/2014 |
| 2017/0251724 | | | Lamb et al. | AU | |)2891 A1 | 5/2017 |
| 2017/0251725 | | | Buchberger et al. | CA | | 11869 A1 | 5/2010 |
| 2017/0251726 | $\mathbf{A}1$ | | Nielsen | | | 22213 A | 5/2010 |
| 2017/0251727 | A 1 | 9/2017 | Nielsen | CN | | | |
| 2017/0251728 | A 1 | 9/2017 | Peleg et al. | CN | | 18481 Y | 2/2008 |
| 2017/0251729 | A 1 | | Li et al. | CN | | 80916 Y | 3/2010 |
| 2017/0258129 | | 9/2017 | | CN | 10186 | 59356 A | 10/2010 |
| 2017/0258132 | | | Rostami et al. | CN | 30154 | 17686 S | 5/2011 |
| 2017/0258134 | | 9/2017 | | $\mathbf{C}\mathbf{N}$ | 30197 | 70169 S | 6/2012 |
| 2017/0258137 | | | Smith et al. | CN | 10275 | 54924 A | 10/2012 |
| | | | | CN | 30239 | 96126 S | 4/2013 |
| 2017/0258138 | | | Rostami et al. | CN | | 11944 A | 6/2013 |
| 2017/0258139 | | | Rostami et al. | CN | | 99554 S | 4/2014 |
| 2017/0258140 | | | Rostami et al. | CN | | 0246 S | 4/2014 |
| 2017/0258142 | $\mathbf{A}1$ | 9/2017 | Hatton et al. | | | | |
| 2017/0258143 | $\mathbf{A}1$ | 9/2017 | Lederer | CN | | 34434 S | 8/2014 |
| 2017/0259170 | $\mathbf{A}1$ | 9/2017 | Bowen et al. | CN | | 26289 S | 8/2014 |
| 2017/0259954 | A 1 | 9/2017 | Schwester | CN | | 50830 S | 9/2014 |
| 2017/0261200 | A1 | 9/2017 | Stultz | CN | | 91331 S | 1/2015 |
| 2017/0265517 | | | Swede et al. | CN | 30321 | 10086 S | 5/2015 |
| 2017/0265522 | | | Li et al. | CN | 30356 | 58163 S | 1/2016 |
| 2017/0265524 | | | Cadieux et al. | CN | 30310 |)3390 S | 2/2016 |
| | | - | | DE | 1985 | 54005 A1 | 5/2000 |
| 2017/0265525 | | | Li et al. | DE | 1985 | 54012 A1 | 5/2000 |
| 2017/0266397 | | | Mayle et al. | EP | | 33672 A2 | 9/1988 |
| 2017/0273353 | | | Gindrat | EP | |)3767 A1 | 9/1992 |
| 2017/0273354 | | | Tucker et al. | EP | | 32194 A1 | 3/1993 |
| 2017/0273355 | | 9/2017 | Rogers et al. | EP | | 35695 A2 | 4/1993 |
| 2017/0273357 | $\mathbf{A}1$ | 9/2017 | Barbuck | | | | |
| 2017/0273358 | $\mathbf{A}1$ | 9/2017 | Batista et al. | EP | | 52258 A2 | 3/1997 |
| 2017/0273359 | $\mathbf{A}1$ | 9/2017 | Liu | EP | | 10033 A1 | 10/2009 |
| 2017/0273360 | A 1 | 9/2017 | Brinkley et al. | EP | | 36507 A2 | 5/2010 |
| 2017/0273361 | A 1 | | Li et al. | \mathbf{EP} | | 99636 A1 | 12/2011 |
| 2017/0273914 | | | Knudsen | EP | | 73900 A1 | 3/2013 |
| 2017/0280767 | | 10/2017 | | EP | 261 | 14731 A1 | 7/2013 |
| 2017/0280768 | | | Lipowicz | EP | 271 | l1006 A1 | 3/2014 |
| 2017/0280769 | | 10/2017 | ± | EP | 264 | 11669 B1 | 5/2014 |
| 2017/0280709 | | | | EP | | 39248 A1 | 10/2014 |
| | | | Wang et al. | EP | | 93342 B1 | 12/2014 |
| 2017/0280771 | | | Courbat et al. | EP | | 56893 A1 | 4/2015 |
| 2017/0280775 | | | Manca et al. | EP | | 52454 A1 | 4/2015 |
| 2017/0280776 | | | Manca et al. | EP | | 52457 A1 | 4/2015 |
| 2017/0280778 | | 10/2017 | | EP EP | | 14206 A1 | 11/2015 |
| 2017/0281883 | $\mathbf{A}1$ | 10/2017 | Li et al. | | | | |
| 2017/0283154 | A1 | 10/2017 | Karles et al. | EP | | 52110 A1 | 12/2015 |
| 2017/0285810 | A1 | 10/2017 | Krah | EP | | 39912 A1 | 3/2016 |
| 2017/0290368 | | 10/2017 | | EP | |)1918 A1 | 4/2016 |
| 2017/0290369 | | | Norasak | EP | |)7305 A1 | 4/2016 |
| | | | | EP | 301 | 12213 A1 | 4/2016 |
| 2017/0290370 | | | Garthaffner et al. | EP | 301 | 6233 A1 | 5/2016 |
| 2017/0290371 | | | Davis et al. | EP | 302 | 23016 A1 | 5/2016 |
| 2017/0290373 | | 10/2017 | _ | EP | 302 | 23351 A1 | 5/2016 |
| 2017/0290998 | A1 | 10/2017 | Poston et al. | EP | | 23947 A1 | 5/2016 |
| 2017/0295840 | A1 | 10/2017 | Rath et al. | EP | | 25598 A1 | 6/2016 |
| 2017/0295843 | | 10/2017 | | EP | | 26779 A1 | 6/2016 |
| 2017/0295844 | | | Thevenaz et al. | EP | | 31338 A1 | 6/2016 |
| | | | | | | | |
| 2017/0295845 | Al | 10/201/ | Bajpai et al. | EP | 304 | 17742 A1 | 7/2016 |
| | | | | | | | |

| EP | 3056099 A1 | 8/2016 | WO | WO-2011010334 A1 | 1/2011 |
|---------------|------------------------------------|---------|---------------------------------------|---|---------|
| | | | | | |
| EP | 3061358 A1 | 8/2016 | WO | WO-2011050964 A1 | 5/2011 |
| \mathbf{EP} | 3075270 A1 | 10/2016 | WO | WO-2011125058 A1 | 10/2011 |
| EP | 3075271 A1 | 10/2016 | WO | WO-2012019533 A1 | 2/2012 |
| | | | | | |
| EP | 3081102 A1 | 10/2016 | WO | WO-2012043941 A1 | 4/2012 |
| \mathbf{EP} | 3085638 A1 | 10/2016 | WO | WO-2012062600 A1 | 5/2012 |
| EP | 3087853 A1 | 11/2016 | WO | WO-2012088675 A1 | 7/2012 |
| | | | | | |
| \mathbf{EP} | 3097803 A1 | 11/2016 | WO | WO-2012091249 A1 | 7/2012 |
| EP | 3103355 A1 | 12/2016 | WO | WO-2012100523 A1 | 8/2012 |
| EP | | | WO | WO-2012129812 A1 | 10/2012 |
| | 3103356 A1 | 12/2016 | | | |
| \mathbf{EP} | 3111787 A1 | 1/2017 | WO | WO-2012134117 A2 | 10/2012 |
| EP | 3130238 A1 | 2/2017 | WO | WO-2012164033 A1 | 12/2012 |
| | | | | | |
| EP | 3132843 A1 | 2/2017 | WO | WO-2012173322 A1 | 12/2012 |
| \mathbf{EP} | 3135139 A1 | 3/2017 | WO | WO-2012174677 A1 | 12/2012 |
| EP | 3135603 A1 | 3/2017 | WO | WO-D079112-0010 | 12/2012 |
| | | | | | |
| EP | 3143882 A3 | 3/2017 | WO | WO-2013012157 A1 | 1/2013 |
| EP | 3143884 A3 | 4/2017 | WO | WO-2013020220 A1 | 2/2013 |
| | | | | | |
| EP | 3155908 A1 | 4/2017 | WO | WO-2013030202 A1 | 3/2013 |
| \mathbf{EP} | 3158880 A1 | 4/2017 | WO | WO-2013034453 A1 | 3/2013 |
| EP | 3158881 A1 | 4/2017 | WO | WO-2013040193 A2 | 3/2013 |
| | | | | | |
| EP | 3195738 A2 | 7/2017 | WO | WO-2013044537 A1 | 4/2013 |
| EP | 3165102 A3 | 8/2017 | WO | WO-2013076750 A1 | 5/2013 |
| | | | | | |
| EP | 3199043 A1 | 8/2017 | WO | WO-2013083635 A1 | 6/2013 |
| \mathbf{EP} | 3205220 A1 | 8/2017 | WO | WO-2013089551 A1 | 6/2013 |
| EP | 3205597 A1 | 8/2017 | WO | WO-2013110208 A1 | 8/2013 |
| | | | | | |
| \mathbf{EP} | 3213649 A1 | 9/2017 | WO | WO-2013110209 A1 | 8/2013 |
| EP | 3225118 A1 | 10/2017 | WO | WO-2013110210 A1 | 8/2013 |
| | | | | | |
| EP | 3228198 A1 | 10/2017 | WO | WO-2013113173 A1 | 8/2013 |
| \mathbf{EP} | 3228345 A1 | 10/2017 | WO | WO-2013113174 A1 | 8/2013 |
| ES | 2118034 A1 | 9/1998 | WO | WO-2013113612 A1 | 8/2013 |
| | | _ | | | |
| GB | 1025630 A | 4/1966 | WO | WO-2013116983 A1 | 8/2013 |
| GB | 1065678 A | 4/1967 | WO | WO-2013131763 A1 | 9/2013 |
| | | | WO | WO-2013142678 A1 | |
| GB | 2533174 A | 6/2016 | | | 9/2013 |
| IΕ | S20050615 | 9/2005 | WO | WO-2013150406 A2 | 10/2013 |
| JP | 62278975 | 12/1987 | WO | WO-2013156658 A1 | 10/2013 |
| | | | | | |
| JP | H06114105 A | 4/1994 | WO | WO-2013165878 A1 | 11/2013 |
| JP | 09-075058 | 3/1997 | WO | WO-2013171206 A1 | 11/2013 |
| | | | WO | | |
| JP | H09075058 A | 3/1997 | · · · · · · · · · · · · · · · · · · · | WO-2013174001 A1 | 11/2013 |
| JP | 11178563 | 6/1999 | WO | WO-2014020539 A1 | 2/2014 |
| JP | 2000203639 A | 7/2000 | WO | WO-2014020953 A1 | 2/2014 |
| | | | | | |
| JP | 2000236865 A | 9/2000 | WO | WO-2014023171 A1 | 2/2014 |
| JP | 2001161819 A | 6/2001 | WO | WO-2014032280 A1 | 3/2014 |
| JP | 2001165437 A | 6/2001 | WO | WO-2014040915 A1 | 3/2014 |
| | | | | | |
| JP | 2006320285 A | 11/2006 | WO | WO-2014047948 A1 | 4/2014 |
| JP | 2006320286 A | 11/2006 | WO | WO-2014047955 A1 | 4/2014 |
| | 2009213428 A | 9/2009 | WO | WO-2014067236 A1 | 5/2014 |
| JP | | | | | |
| JР | 2010020929 A | 1/2010 | WO | WO-2014071747 A1 | 5/2014 |
| JP | 2011024430 A | 2/2011 | WO | WO-2014101119 A1 | 7/2014 |
| | | | | | |
| JP | 2012005412 A | 1/2012 | WO | WO-2014101401 A1 | 7/2014 |
| JP | 2015504669 A | 2/2015 | WO | WO-2014101734 A1 | 7/2014 |
| JP | 201712730 A | 1/2017 | WO | WO-2014106323 A1 | 7/2014 |
| | | | | | |
| TW | 201436722 A | 10/2014 | WO | WO-2014110761 A1 | 7/2014 |
| TW | 201438608 A | 10/2014 | WO | WO-2014113949 A1 | 7/2014 |
| TW | 201524383 A | 7/2015 | WO | WO-2014117382 A1 | 8/2014 |
| | | | | | |
| WO | WO-9712639 A1 | 4/1997 | WO | WO-2014121509 A1 | 8/2014 |
| WO | WO-2000005976 A1 | 2/2000 | WO | WO-2014125340 A1 | 8/2014 |
| WO | WO-0028842 A1 | 5/2000 | WO | WO-2014127446 A1 | 8/2014 |
| | | | | | |
| WO | WO-03055486 A1 | 7/2003 | WO | WO-2014134781 A1 | 9/2014 |
| WO | WO-03056948 A1 | 7/2003 | WO | WO-2014144678 A2 | 9/2014 |
| WO | WO-03082031 A1 | 10/2003 | WO | WO-2014146270 A1 | 9/2014 |
| – | | | | | |
| WO | WO-03101454 A1 | 12/2003 | WO | WO-2014147470 A2 | 9/2014 |
| WO | WO-2004064548 A1 | 8/2004 | WO | WO-2014161181 A1 | 10/2014 |
| | ,, , , , , , , , , , , , , , , , , | | | ,, , , _,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| WO | WO-2004080216 A1 | 9/2004 | WO | WO-2014166039 A1 | 10/2014 |
| WO | WO-2005020726 A1 | 3/2005 | WO | WO-2014167530 A1 | 10/2014 |
| WO | WO-2005060366 A2 | 7/2005 | WO | WO-2014169437 A1 | 10/2014 |
| | | | | | |
| WO | WO-2006021153 A1 | 3/2006 | WO | WO-2014169667 A1 | 10/2014 |
| WO | WO-2007066374 A1 | 6/2007 | WO | WO-2014185937 A1 | 11/2014 |
| | | | | | |
| WO | WO-2007078273 A1 | 7/2007 | WO | WO-2014186983 A1 | 11/2014 |
| WO | WO-2007095109 A2 | 8/2007 | WO | WO-2014194499 A1 | 12/2014 |
| WO | WO-2007117675 A2 | 10/2007 | WO | WO-2014195687 A1 | 12/2014 |
| | | | | | |
| WO | WO-2007/141520 A1 | 12/2007 | WO | WO-2014198042 A1 | 12/2014 |
| WO | WO-2008077271 A1 | 7/2008 | WO | WO-2014201610 A1 | 12/2014 |
| | | | | | |
| WO | WO-2008151777 A2 | 12/2008 | WO | WO-2014201611 A1 | 12/2014 |
| WO | WO-2009003204 A2 | 1/2009 | WO | WO-2014201646 A1 | 12/2014 |
| | | | | | |
| WO | WO-2010003480 A1 | 1/2010 | WO | WO-2014201664 A1 | 12/2014 |
| WO | WO-2010118122 A1 | 10/2010 | WO | WO-2014201666 A1 | 12/2014 |
| | | | | | |
| WO | WO-2010118644 A1 | 10/2010 | WO | WO-2014201668 A1 | 12/2014 |
| WO | WO-2010140841 A2 | 12/2010 | WO | WO-2014205749 A1 | 12/2014 |
| | | | | | |
| WO | WO-2010145805 A1 | 12/2010 | WO | WO-2014205780 A1 | 12/2014 |
| | | | | | |

| WO | WO-2014205807 A | $1 \frac{1}{2}$ | 014 | WO | WO-2015077999 | Al | 6/2015 |
|----|------------------------------------|-----------------|-----|----|--------------------------------|---------------|---------|
| WO | WO-2014205811 A | 11 - 12/2 | 014 | WO | WO-2015078010 | A1 | 6/2015 |
| WO | WO-2014206148 A | 1 - 12/2 | 014 | WO | WO-2015079197 | A1 | 6/2015 |
| WO | WO-2015000125 A | | 015 | WO | WO-2015089711 | | 6/2015 |
| | | | | | | | |
| WO | WO-2015000180 A | | 015 | WO | WO-2015091346 | | 6/2015 |
| WO | WO-2015003327 A | 1/2 | 015 | WO | WO-2015013327 | A3 | 7/2015 |
| WO | WO-2015003372 A | 1/2 | 015 | WO | WO-2015106434 | A 1 | 7/2015 |
| WO | WO-2015003374 A | | 015 | WO | WO-2015106440 | Δ1 | 7/2015 |
| | | | | | | | |
| WO | WO-2015006929 A | | 015 | WO | WO-2015107551 | | 7/2015 |
| WO | WO-2015010242 A | 1/2 | 015 | WO | WO-2015107552 | $\mathbf{A}1$ | 7/2015 |
| WO | WO-2015010277 A | 1/2 | 015 | WO | WO-2015109476 | A1 | 7/2015 |
| WO | WO-2015010284 A | | 015 | WO | WO-2015109532 | | 7/2015 |
| | | | | | | | |
| WO | WO-2015010291 A | | 015 | WO | WO-2015109540 | | 7/2015 |
| WO | WO-2015010310 A | $\Lambda = 1/2$ | 015 | WO | WO-2015109616 | Al | 7/2015 |
| WO | WO-2015010336 A | 1/2 | 015 | WO | WO-2015109618 | A1 | 7/2015 |
| WO | WO-2015010345 A | .1 1/2 | 015 | WO | WO-2015117285 | A 1 | 8/2015 |
| WO | | | | WO | WO-2015117288 | | |
| | WO-2015010349 A | | 015 | | | | 8/2015 |
| WO | WO-2015013890 A | $\Lambda = 2/2$ | 015 | WO | WO-2015120591 | Al | 8/2015 |
| WO | WO-2015013891 A | 1 	 2/2 | 015 | WO | WO-2015120623 | A1 | 8/2015 |
| WO | WO-2015013892 A | 1 - 2/2 | 015 | WO | WO-2015123831 | A1 | 8/2015 |
| WO | WO-2015013926 A | | 015 | WO | WO-2015127609 | | 9/2015 |
| | | | | | | | |
| WO | WO-2015013950 A | | 015 | WO | WO-2015128599 | | 9/2015 |
| WO | WO-2015013967 A | 1 	 2/2 | 015 | WO | WO-2015137815 | $\mathbf{A}1$ | 9/2015 |
| WO | WO-2015015156 A | 1 	 2/2 | 015 | WO | WO-2015140312 | A 1 | 9/2015 |
| WO | WO-2015017971 A | | 015 | WO | WO-2015140336 | | 9/2015 |
| | | | | | | | |
| WO | WO-2015018026 A | | 015 | WO | WO-2015140768 | | 9/2015 |
| WO | WO-2015018120 A | 1 	 2/2 | 015 | WO | WO-2015143637 | Al | 10/2015 |
| WO | WO-2015021612 A | 1 	 2/2 | 015 | WO | WO-2015143648 | A 1 | 10/2015 |
| WO | WO-2015021646 A | | 015 | WO | WO-2015143749 | | 10/2015 |
| | | | | | | | |
| WO | WO-2015021651 A | | 015 | WO | WO-2015143765 | | 10/2015 |
| WO | WO-2015021652 A | 1 	 2/2 | 015 | WO | WO-2015144057 | Al | 10/2015 |
| WO | WO-2015021655 A | 1 	 2/2 | 015 | WO | WO-2015149311 | A 1 | 10/2015 |
| WO | WO-2015021658 A | | 015 | WO | WO-2015149330 | Δ1 | 10/2015 |
| | | | | | | | |
| WO | WO-2015024239 A | | 015 | WO | WO-2015149332 | | 10/2015 |
| WO | WO-2015024247 A | 1 	 2/2 | 015 | WO | WO-2015149338 | Al | 10/2015 |
| WO | WO-2015026081 A | 1 	 2/2 | 015 | WO | WO-2015149368 | A1 | 10/2015 |
| WO | WO-2015027383 A | 1 - 3/2 | 015 | WO | WO-2015149403 | A 1 | 10/2015 |
| | | | | | | | |
| WO | WO-2015027435 A | | 015 | WO | WO-2015149406 | | 10/2015 |
| WO | WO-2015027436 A | | 015 | WO | WO-2015150068 | Al | 10/2015 |
| WO | WO-2015027470 A | 1 	 3/2 | 015 | WO | WO-2015154309 | A 1 | 10/2015 |
| WO | WO-2015028815 A | 3/2 | 015 | WO | WO-2015154619 | A1 | 10/2015 |
| WO | WO-2015032050 A | | 015 | WO | WO-2015157891 | | 10/2015 |
| | | | | | | | |
| WO | WO-2015032055 A | | 015 | WO | WO-2015157893 | | 10/2015 |
| WO | WO-2015032078 A | 1 	 3/2 | 015 | WO | WO-2015157900 | $\mathbf{A}1$ | 10/2015 |
| WO | WO-2015032093 A | 3/2 | 015 | WO | WO-2015157901 | A1 | 10/2015 |
| WO | WO-2015035510 A | | 015 | WO | WO-2015157928 | | 10/2015 |
| | | | | | | | |
| WO | WO-2015035547 A | | 015 | WO | WO-2015158522 | | 10/2015 |
| WO | WO-2015035557 A | 1 	 3/2 | 015 | WO | WO-2015158548 | Al | 10/2015 |
| WO | WO-2015035587 A | 3/2 | 015 | WO | WO-2015161406 | A1 | 10/2015 |
| WO | WO-2015035623 A | 1 - 3/2 | 015 | WO | WO-2015161407 | A 1 | 10/2015 |
| WO | WO-2015035689 A | | 015 | WO | WO-2015161485 | | 10/2015 |
| | | | | | | | |
| WO | WO-2015037925 A | | 015 | WO | WO-2015161486 | | 10/2015 |
| WO | WO-2015039275 A | 1 	 3/2 | 015 | WO | WO-2015161491 | $\mathbf{A}1$ | 10/2015 |
| WO | WO-2015039280 A | 1 	 3/2 | 015 | WO | WO-2015161514 | A 1 | 10/2015 |
| WO | WO-2015039332 A | 1 - 3/2 | 015 | WO | WO-2015161553 | A 1 | 10/2015 |
| WO | WO-2015035352 A WO-2015042790 A | | 015 | WO | WO-2015161555 WO-2015161555 | | 10/2015 |
| | | | | | | | |
| WO | WO-2015042811 A | | 015 | WO | WO-2015161557 | | 10/2015 |
| WO | WO-2015042848 A | 1 	 4/2 | 015 | WO | WO-2015068044 | A3 | 11/2015 |
| WO | WO-2015042943 A | 1 	 4/2 | 015 | WO | WO-2015165067 | A 1 | 11/2015 |
| WO | WO-2015051509 A | | 015 | WO | WO-2015165081 | | 11/2015 |
| | | | | | | | |
| WO | WO-2015051538 A | | 015 | WO | WO-2015165083 | | 11/2015 |
| WO | WO-2015054815 A | 1 	 4/2 | 015 | WO | WO-2015165086 | Al | 11/2015 |
| WO | WO-2015054961 A | 1 	 4/2 | 015 | WO | WO-2015165105 | A1 | 11/2015 |
| WO | WO-2015055314 A | | 015 | WO | WO-2015165146 | | 11/2015 |
| WO | WO-2015055514 A | | 015 | WO | | | 11/2015 |
| | | | | | WO-2015168827 | | |
| WO | WO-2015058341 A | | 015 | WO | WO-2015168828 | | 11/2015 |
| WO | WO-2015058367 A | 1 	 4/2 | 015 | WO | WO-2015168853 | A 1 | 11/2015 |
| WO | WO-2015058387 A | 1 	 4/2 | 015 | WO | WO-2015168904 | A1 | 11/2015 |
| WO | WO-2015062041 A | | 015 | WO | WO-2015168912 | | 11/2015 |
| | | | | | | | |
| WO | WO-2015066136 A | 1 	 5/2 | 015 | WO | WO-2015172331 | Al | 11/2015 |
| WO | WO-2015066927 A | 1 - 5/2 | 015 | WO | WO-2015172361 | A 1 | 11/2015 |
| WO | WO-2015070398 A | | 015 | WO | WO-2015172368 | | 11/2015 |
| | | | | | | | |
| WO | WO-2015070405 A | | 015 | WO | WO-2015172382 | | 11/2015 |
| WO | WO-2015071703 A | 1 	 5/2 | 015 | WO | WO-2015172383 | A1 | 11/2015 |
| WO | WO-2015073975 A | | 015 | WO | WO-2015172384 | | 11/2015 |
| | | | | | | | |
| WO | WO-2015074187 A | | 015 | WO | WO-2015172387 | | 11/2015 |
| WO | WO-2015074265 A | 1 	 5/2 | 015 | WO | WO-2015172388 | A 1 | 11/2015 |
| WO | WO-2015074308 A | | 015 | WO | WO-2015172389 | | 11/2015 |
| | | | | | | | |
| WO | WO-2015077998 A | A1 0/2 | 015 | WO | WO-2015172390 | Al | 11/2015 |
| | | | | | | | |

| 11.0 | TTTO 0015150606 11 | 11/0015 | 11.10 | TTTO 2016020206 11 | 0/0016 |
|------|--------------------|-----------------|-------|--------------------|---------|
| WO | WO-2015172606 A1 | 11/2015 | WO | WO-2016029386 A1 | 3/2016 |
| WO | WO-2015174657 A1 | 11/2015 | WO | WO-2016029389 A1 | 3/2016 |
| WO | WO-2015174708 A1 | 11/2015 | WO | WO-2016029429 A1 | 3/2016 |
| WO | WO-2015175979 A1 | 11/2015 | WO | WO-2016029464 A1 | 3/2016 |
| | | | | | |
| WO | WO-2015176210 A1 | 11/2015 | WO | WO-2016029468 A1 | 3/2016 |
| WO | WO-2015176230 A1 | 11/2015 | WO | WO-2016029470 A1 | 3/2016 |
| WO | WO-2015176300 A1 | 11/2015 | WO | WO-2016029473 A1 | 3/2016 |
| WO | | | WO | WO-2016029567 A1 | 3/2016 |
| | WO-2015176580 A1 | 11/2015 | | | |
| WO | WO-2015180027 A1 | 12/2015 | WO | WO-2016030661 A1 | 3/2016 |
| WO | WO-2015180061 A1 | 12/2015 | WO | WO-2016033721 A1 | 3/2016 |
| WO | WO-2015180062 A1 | 12/2015 | WO | WO-2016033734 A1 | 3/2016 |
| | | | | | |
| WO | WO-2015180071 A1 | 12/2015 | WO | WO-2016033783 A1 | 3/2016 |
| WO | WO-2015180088 A1 | 12/2015 | WO | WO-2016033817 A1 | 3/2016 |
| WO | WO-2015180089 A1 | 12/2015 | WO | WO-2016034100 A1 | 3/2016 |
| WO | WO-2015180145 A1 | 12/2015 | WO | WO-2016038029 A1 | 3/2016 |
| | | | | | - |
| WO | WO-2015184580 A1 | 12/2015 | WO | WO-2016040575 A1 | 3/2016 |
| WO | WO-2015184590 A1 | 12/2015 | WO | WO-2016041114 A1 | 3/2016 |
| WO | WO-2015184620 A1 | 12/2015 | WO | WO-2016041140 A1 | 3/2016 |
| WO | WO-2015184747 A1 | 12/2015 | WO | WO-2016041141 A1 | 3/2016 |
| | | | | | |
| WO | WO-2015188295 A1 | 12/2015 | WO | WO-2016041207 A1 | 3/2016 |
| WO | WO-2015188296 A1 | 12/2015 | WO | WO-2016041209 A1 | 3/2016 |
| WO | WO-2015189613 A1 | 12/2015 | WO | WO-2016045058 A1 | 3/2016 |
| WO | WO-2015190810 A1 | 12/2015 | WO | WO-2016046116 A1 | 3/2016 |
| | | | | | |
| WO | WO-2015192301 A1 | 12/2015 | WO | WO-2015192834 A3 | 4/2016 |
| WO | WO-2015192326 A1 | 12/2015 | WO | WO-2016049822 A1 | 4/2016 |
| WO | WO-2015192336 A1 | 12/2015 | WO | WO-2016049823 A1 | 4/2016 |
| | | | | | |
| WO | WO-2015192337 A1 | 12/2015 | WO | WO-2016049855 A1 | 4/2016 |
| WO | WO-2015192377 A1 | 12/2015 | WO | WO-2016049863 A1 | 4/2016 |
| WO | WO-2015193456 A1 | 12/2015 | WO | WO-2016050246 A1 | 4/2016 |
| WO | WO-2015196331 A1 | 12/2015 | WO | WO-2016050247 A1 | 4/2016 |
| | | | | | |
| WO | WO-2015196332 A1 | 12/2015 | WO | WO-2016054793 A1 | 4/2016 |
| WO | WO-2015196357 A1 | 12/2015 | WO | WO-2016055653 A1 | 4/2016 |
| WO | WO-2015196367 A1 | 12/2015 | WO | WO-2016058139 A1 | 4/2016 |
| WO | WO-2015196395 A1 | 12/2015 | WO | WO-2016058187 A1 | 4/2016 |
| | | | | | |
| WO | WO-2015196463 A1 | 12/2015 | WO | WO-2016058189 A1 | 4/2016 |
| WO | WO-2015148649 A3 | 1/2016 | WO | WO-2016059000 A1 | 4/2016 |
| WO | WO-2016000113 A1 | 1/2016 | WO | WO-2016060576 A1 | 4/2016 |
| WO | WO-2016000130 A1 | 1/2016 | WO | WO-2016061729 A1 | 4/2016 |
| | | | | | |
| WO | WO-2016000135 A1 | 1/2016 | WO | WO-2016061730 A1 | 4/2016 |
| WO | WO-2016000136 A1 | 1/2016 | WO | WO-2016061822 A1 | 4/2016 |
| WO | WO-2016000139 A1 | 1/2016 | WO | WO-2016061859 A1 | 4/2016 |
| WO | WO-2016000135 A1 | 1/2016 | WO | WO-2016062168 A1 | 4/2016 |
| | | | | | |
| WO | WO-2016000207 A1 | 1/2016 | WO | WO-2016062777 A1 | 4/2016 |
| WO | WO-2016000214 A1 | 1/2016 | WO | WO-2016063775 A1 | 4/2016 |
| WO | WO-2016000232 A1 | 1/2016 | WO | WO-2016065520 A1 | 5/2016 |
| WO | WO-2016000232 A1 | | WO | WO-2016065520 A1 | 5/2016 |
| | | 1/2016 | | | |
| WO | WO-2016000305 A1 | 1/2016 | WO | WO-2016065532 A1 | 5/2016 |
| WO | WO-2016008067 A1 | 1/2016 | WO | WO-2016065533 A1 | 5/2016 |
| WO | WO-2016008096 A1 | 1/2016 | WO | WO-2016065596 A1 | 5/2016 |
| | | | | | |
| WO | WO-2016008217 A1 | 1/2016 | WO | WO-2016065598 A1 | 5/2016 |
| WO | WO-2016011573 A1 | 1/2016 | WO | WO-2016065599 A1 | 5/2016 |
| WO | WO-2016012769 A1 | 1/2016 | WO | WO-2016065605 A1 | 5/2016 |
| WO | WO-2016015196 A1 | 2/2016 | WO | WO-2016065606 A1 | 5/2016 |
| WO | | | | | |
| | WO-2016015245 A1 | 2/2016 | WO | WO-2016065607 A1 | 5/2016 |
| WO | WO-2016015246 A1 | 2/2016 | WO | WO-2016070553 A1 | 5/2016 |
| WO | WO-2016015247 A1 | 2/2016 | WO | WO-2016071027 A1 | 5/2016 |
| WO | WO-2016015264 A1 | 2/2016 | WO | WO-2016071705 A1 | 5/2016 |
| WO | WO-2016015201 A1 | 2/2016 | WO | WO-2016071705 A1 | 5/2016 |
| | ,, | | | | |
| WO | WO-2016019508 A1 | 2/2016 | WO | WO-2016074228 A1 | 5/2016 |
| WO | WO-2016019550 A1 | 2/2016 | WO | WO-2016074229 A1 | 5/2016 |
| WO | WO-2016019573 A1 | 2/2016 | WO | WO-2016074230 A1 | 5/2016 |
| WO | WO-2016020675 A1 | 2/2016 | WO | WO-2016074234 A1 | 5/2016 |
| | | | | | |
| WO | WO-2016023173 A1 | 2/2016 | WO | WO-2016074237 A1 | 5/2016 |
| WO | WO-2016023176 A1 | 2/2016 | WO | WO-2016076178 A1 | 5/2016 |
| WO | WO-2016023177 A1 | 2/2016 | WO | WO-2016079001 A1 | 5/2016 |
| WO | WO-2016023181 A1 | 2/2016 | WO | WO-2016079151 A1 | 5/2016 |
| WO | WO-2016023181 A1 | 2/2016 | WO | WO-2016079151 A1 | 5/2016 |
| | | | | | |
| WO | WO-2016023183 A1 | 2/2016 | WO | WO-2016079155 A1 | 5/2016 |
| WO | WO-2016023212 A1 | 2/2016 | WO | WO-2016079468 A1 | 5/2016 |
| WO | WO-2016023651 A1 | 2/2016 | WO | WO-2016079533 A1 | 5/2016 |
| | | | | | |
| WO | WO-2016023824 A1 | 2/2016 | WO | WO-2016079729 A1 | 5/2016 |
| WO | WO-2016023965 A1 | 2/2016 | WO | WO-2016058992 A3 | 6/2016 |
| WO | WO-2016026104 A1 | 2/2016 | WO | WO-2016059003 A3 | 6/2016 |
| | | | | | |
| WO | WO-2016026105 A1 | 2/2016 | WO | WO-2016082074 A1 | 6/2016 |
| WO | WO-2016026156 A1 | 2/2016 | WO | WO-2016082103 A1 | 6/2016 |
| WO | WO-2016026811 A1 | 2/2016 | WO | WO-2016082116 A1 | 6/2016 |
| | | | | | |
| WO | WO-2016028544 A1 | 2/2016 | WO | WO-2016082136 A1 | 6/2016 |
| WO | WO-2016029344 A1 | 3/2016 | WO | WO-2016082158 A1 | 6/2016 |
| WO | WO-2016029382 A1 | 3/2016 | WO | WO-2016082179 A1 | 6/2016 |
| ., 🗸 | 5 2010027302 A1 | J, 201 0 | *** | 0 2010002177 711 | J, 2010 |

| WO | WO-2016082180 A1 | 6/2016 | WO | WO-2016119163 A1 | 8/2016 |
|---------------|---|-------------|-----|--|---------|
| | | | | | |
| WO | WO-2016082183 A1 | 6/2016 | WO | WO-2016119167 A1 | 8/2016 |
| \mathbf{WO} | WO-2016082217 A1 | 6/2016 | WO | WO-2016119170 A1 | 8/2016 |
| WO | WO-2016082232 A1 | 6/2016 | WO | WO-2016119225 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016082479 A1 | 6/2016 | WO | WO-2016119248 A1 | 8/2016 |
| WO | WO-2016086382 A1 | 6/2016 | WO | WO-2016119273 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016090426 A1 | 6/2016 | WO | WO-2016119496 A1 | 8/2016 |
| WO | WO-2016090531 A1 | 6/2016 | WO | WO-2016122417 A1 | 8/2016 |
| WO | WO-2016090533 A1 | 6/2016 | WO | WO-2016123763 A1 | 8/2016 |
| | | | | ,, , , _ , , , , , , , , , , , , , , , | |
| WO | WO-2016090593 A1 | 6/2016 | WO | WO-2016123764 A1 | 8/2016 |
| WO | WO-2016090601 A1 | 6/2016 | WO | WO-2016123770 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016090602 A1 | 6/2016 | WO | WO-2016123779 A1 | 8/2016 |
| WO | WO-2016090962 A1 | 6/2016 | WO | WO-2016123780 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016092259 A1 | 6/2016 | WO | WO-2016123781 A1 | 8/2016 |
| WO | WO-2016095101 A1 | 6/2016 | WO | WO-2016124017 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016095206 A1 | 6/2016 | WO | WO-2016124019 A1 | 8/2016 |
| \mathbf{WO} | WO-2016095220 A1 | 6/2016 | WO | WO-2016124695 A1 | 8/2016 |
| WO | WO-2016095234 A1 | 6/2016 | WO | WO-2016124740 A1 | 8/2016 |
| | ,, , , _,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | ,, , , _ , , , , , , , , , , , , , , , | |
| WO | WO-2016095297 A1 | 6/2016 | WO | WO-2016124741 A1 | 8/2016 |
| WO | WO-2016096337 A1 | 6/2016 | WO | WO-2016127287 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016096482 A1 | 6/2016 | WO | WO-2016127293 A1 | 8/2016 |
| \mathbf{WO} | WO-2016096497 A1 | 6/2016 | WO | WO-2016127327 A1 | 8/2016 |
| WO | WO-2016096733 A1 | 6/2016 | WO | WO-2016127360 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016096762 A1 | 6/2016 | WO | WO-2016127361 A1 | 8/2016 |
| WO | WO-2016099045 A1 | 6/2016 | WO | WO-2016127389 A1 | 8/2016 |
| | | | | ,, , , _ , , , , , , , , , , , , , , , | |
| WO | WO-2016099276 A1 | 6/2016 | WO | WO-2016127390 A1 | 8/2016 |
| WO | WO-2016101141 A1 | 6/2016 | WO | WO-2016127396 A1 | 8/2016 |
| WO | WO-2016101142 A1 | 6/2016 | WO | WO-2016127397 A1 | 8/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016101143 A1 | 6/2016 | WO | WO-2016127401 A1 | 8/2016 |
| WO | WO-2016101144 A1 | 6/2016 | WO | WO-2016127406 A1 | 8/2016 |
| | | | | | |
| WO | WO-2016101150 A1 | 6/2016 | WO | WO-2016127468 A1 | 8/2016 |
| \mathbf{WO} | WO-2016101183 A1 | 6/2016 | WO | WO-2016127839 A1 | 8/2016 |
| WO | WO-2016101200 A1 | 6/2016 | WO | WO-2016128562 A1 | 8/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016101202 A1 | 6/2016 | WO | WO-2016131755 A1 | 8/2016 |
| WO | WO-2016101203 A1 | 6/2016 | WO | WO-2016132026 A1 | 8/2016 |
| WO | WO-2016101248 A1 | 6/2016 | WO | WO-2016134544 A1 | 9/2016 |
| | | - | | | |
| WO | WO-2016103202 A1 | 6/2016 | WO | WO-2016135503 A1 | 9/2016 |
| WO | WO-2016105191 A1 | 6/2016 | WO | WO-2016138608 A1 | 9/2016 |
| | | | | | |
| WO | WO-2016036236 A3 | 7/2016 | WO | WO-2016138665 A1 | 9/2016 |
| WO | WO-2016106476 A1 | 7/2016 | WO | WO-2016138689 A1 | 9/2016 |
| WO | WO-2016106483 A1 | 7/2016 | WO | WO-2016141508 A1 | 9/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016106493 A1 | 7/2016 | WO | WO-2016141555 A1 | 9/2016 |
| WO | WO-2016106495 A1 | 7/2016 | WO | WO-2016141556 A1 | 9/2016 |
| WO | WO-2016106499 A1 | 7/2016 | WO | WO-2016141581 A1 | 9/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016106500 A1 | 7/2016 | WO | WO-2016141592 A1 | 9/2016 |
| WO | WO-2016106512 A1 | 7/2016 | WO | WO-2016141593 A1 | 9/2016 |
| | ,, , , _,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | ,, , , _ , , , , , , , , , , , , , , , | |
| WO | WO-2016108693 A1 | 7/2016 | WO | WO-2016145611 A1 | 9/2016 |
| WO | WO-2016108694 A1 | 7/2016 | WO | WO-2016145612 A1 | 9/2016 |
| WO | WO-2016109929 A1 | 7/2016 | WO | WO-2016145613 A1 | 9/2016 |
| | | | | | |
| WO | WO-2016109930 A1 | 7/2016 | WO | WO-2016145634 A1 | 9/2016 |
| WO | WO-2016109931 A1 | 7/2016 | WO | WO-2016145656 A1 | 9/2016 |
| WO | WO-2016109932 A1 | 7/2016 | WO | WO-2016145663 A1 | 9/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016109933 A1 | 7/2016 | WO | WO-2016149896 A1 | 9/2016 |
| WO | WO-2016109942 A1 | 7/2016 | WO | WO-2016149932 A1 | 9/2016 |
| | | | | | |
| WO | WO-2016109964 A1 | 7/2016 | WO | WO-2016149942 A1 | 9/2016 |
| WO | WO-2016109965 A1 | 7/2016 | WO | WO-2016150019 A1 | 9/2016 |
| WO | WO-2016110522 A1 | 7/2016 | WO | WO-2016150979 A1 | 9/2016 |
| | | | | | |
| WO | WO-2016112491 A1 | 7/2016 | WO | WO-2016154792 A1 | 10/2016 |
| \mathbf{WO} | WO-2016112493 A1 | 7/2016 | WO | WO-2016154797 A1 | 10/2016 |
| WO | WO 2016112533 A1 | 7/2016 | WO | WO-2016154798 A1 | 10/2016 |
| | WO-2016112533 A1 | 7/2016 | | | 10/2016 |
| \mathbf{WO} | WO-2016112534 A1 | 7/2016 | WO | WO-2016154815 A1 | 10/2016 |
| WO | WO-2016112541 A1 | 7/2016 | WO | WO-2016154895 A1 | 10/2016 |
| | | | | | |
| WO | WO-2016112542 A1 | 7/2016 | WO | WO-2016154896 A1 | 10/2016 |
| \mathbf{WO} | WO-2016112561 A1 | 7/2016 | WO | WO-2016154897 A1 | 10/2016 |
| WO | WO-2016112579 A1 | 7/2016 | WO | WO-2016154900 A1 | 10/2016 |
| | | | | | |
| WO | WO-2016115689 A1 | 7/2016 | WO | WO-2016154994 A1 | 10/2016 |
| WO | WO-2016115691 A1 | 7/2016 | WO | WO-2016155003 A1 | 10/2016 |
| WO | WO-2016115701 A1 | 7/2016 | WO | WO-2016155103 A1 | 10/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016115715 A1 | 7/2016 | WO | WO-2016155104 A1 | 10/2016 |
| WO | WO-2016116754 A1 | 7/2016 | WO | WO-2016155105 A1 | 10/2016 |
| | | | | | |
| WO | WO-2016116755 A1 | 7/2016 | WO | WO-2016155316 A1 | 10/2016 |
| WO | WO-2016118005 A1 | 7/2016 | WO | WO-2016156103 A1 | 10/2016 |
| | | | | | |
| WO | WO-2016119098 A1 | 8/2016 | WO | WO-2016156217 A1 | 10/2016 |
| WO | WO-2016119099 A1 | 8/2016 | WO | WO-2016156413 A1 | 10/2016 |
| WO | WO-2016119101 A1 | 8/2016 | WO | WO-2016161554 A1 | 10/2016 |
| | | | | | |
| \mathbf{WO} | WO-2016119119 A1 | 8/2016 | WO | WO-2016161673 A1 | 10/2016 |
| WO | WO-2016119121 A1 | 8/2016 | WO | WO-2016162446 A1 | 10/2016 |
| | | | | | |
| WO | WO-2016119144 A1 | 8/2016 | WO | WO-2016162492 A1 | 10/2016 |
| WO | WO-2016119145 A1 | 8/2016 | WO | WO-2016165055 A1 | 10/2016 |
| | | J. | *** | | ,, |

| WO | WO-2016165057 A1 | 10/2016 | WO | WO-2017007252 A1 | 1/2017 |
|----|------------------|---------|-------------|--|--------|
| WO | WO-2016165063 A1 | 10/2016 | WO | WO-2017008616 A1 | 1/2017 |
| | | | | | |
| WO | WO-2016165125 A1 | 10/2016 | WO | WO-2017009002 A1 | 1/2017 |
| WO | WO-2016166049 A1 | 10/2016 | WO | WO-2017011419 A1 | 1/2017 |
| WO | WO-2016166456 A1 | 10/2016 | WO | WO-2017012099 A1 | 1/2017 |
| WO | WO-2016166661 A1 | 10/2016 | WO | WO-2017012105 A1 | 1/2017 |
| | | | | ,, | |
| WO | WO-2016166670 A1 | 10/2016 | WO | WO-2017012257 A1 | 1/2017 |
| WO | WO-2016168986 A1 | 10/2016 | WO | WO-2017012335 A1 | 1/2017 |
| WO | WO-2016169019 A1 | 10/2016 | WO | WO-2016172921 A8 | 2/2017 |
| | | | | | |
| WO | WO-2016169052 A1 | 10/2016 | WO | WO-2016178098 A3 | 2/2017 |
| WO | WO-2016169063 A1 | 10/2016 | WO | WO-2017015791 A1 | 2/2017 |
| WO | WO-2016169669 A1 | 10/2016 | WO | WO-2017015794 A1 | 2/2017 |
| | | | ,, <u>-</u> | | |
| WO | WO-2016169796 A1 | 10/2016 | WO | WO-2017015832 A1 | 2/2017 |
| WO | WO-2016169797 A1 | 10/2016 | WO | WO-2017015859 A1 | 2/2017 |
| WO | WO-2016172802 A1 | 11/2016 | WO | WO-2017016323 A1 | 2/2017 |
| | | | | | |
| WO | WO-2016172821 A1 | 11/2016 | WO | WO-2017017970 A1 | 2/2017 |
| WO | WO-2016172843 A1 | 11/2016 | WO | WO-2017020220 A1 | 2/2017 |
| WO | WO-2016172847 A1 | 11/2016 | WO | WO-2017020221 A1 | 2/2017 |
| | | | | | |
| WO | WO-2016172867 A1 | 11/2016 | WO | WO-2017020275 A1 | 2/2017 |
| WO | WO-2016172898 A1 | 11/2016 | WO | WO-2017020290 A1 | 2/2017 |
| WO | WO-2016172907 A1 | 11/2016 | WO | WO-2017023589 A1 | 2/2017 |
| WO | WO-2016172908 A1 | 11/2016 | WO | | |
| | | | | WO-2017024477 A1 | 2/2017 |
| WO | WO-2016172909 A1 | 11/2016 | WO | WO-2017024478 A1 | 2/2017 |
| WO | WO-2016172954 A1 | 11/2016 | WO | WO-2017024799 A1 | 2/2017 |
| WO | WO-2016174179 A1 | 11/2016 | WO | WO-2017024926 A1 | 2/2017 |
| | | | | | |
| WO | WO-2016176800 A1 | 11/2016 | WO | WO-2017025383 A1 | 2/2017 |
| WO | WO-2016177604 A1 | 11/2016 | WO | WO-2017028167 A1 | 2/2017 |
| WO | WO-2016179356 A1 | 11/2016 | WO | WO-2017028295 A1 | 2/2017 |
| | | | | | |
| WO | WO-2016179664 A1 | 11/2016 | WO | WO-2017029268 A1 | 2/2017 |
| WO | WO-2016179776 A1 | 11/2016 | WO | WO-2017029269 A1 | 2/2017 |
| WO | WO-2016179828 A1 | 11/2016 | WO | WO-2017029270 A1 | 2/2017 |
| | | | | ,, | |
| WO | WO-2016183724 A1 | 11/2016 | WO | WO-2017021536 A3 | 3/2017 |
| WO | WO-2016184247 A1 | 11/2016 | WO | WO-2017031662 A1 | 3/2017 |
| WO | WO-2016184824 A1 | 11/2016 | WO | WO-2017031678 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016171997 A3 | 12/2016 | WO | WO-2017031681 A1 | 3/2017 |
| WO | WO-2016187803 A1 | 12/2016 | WO | WO-2017033007 A1 | 3/2017 |
| WO | WO-2016187943 A1 | 12/2016 | WO | WO-2017033021 A1 | 3/2017 |
| WO | | 12/2016 | WO | WO-2017033132 A1 | |
| | WO-2016188140 A1 | | | | 3/2017 |
| WO | WO-2016188141 A1 | 12/2016 | WO | WO-2017035720 A1 | 3/2017 |
| WO | WO-2016188142 A1 | 12/2016 | WO | WO-2017036818 A1 | 3/2017 |
| WO | WO-2016188967 A1 | 12/2016 | WO | WO-2017036819 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016189086 A1 | 12/2016 | WO | WO-2017036828 A1 | 3/2017 |
| WO | WO-2016191946 A1 | 12/2016 | WO | WO-2017036829 A1 | 3/2017 |
| WO | WO-2016193336 A1 | 12/2016 | WO | WO-2017036865 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016193365 A1 | 12/2016 | WO | WO-2017036879 A1 | 3/2017 |
| WO | WO-2016193743 A1 | 12/2016 | WO | WO-2017041251 A1 | 3/2017 |
| WO | WO-2016197485 A1 | 12/2016 | WO | WO-2017042081 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016197658 A1 | 12/2016 | WO | WO-2017045132 A1 | 3/2017 |
| WO | WO-2016198417 A1 | 12/2016 | WO | WO-2017045897 A1 | 3/2017 |
| WO | WO-2016198459 A1 | 12/2016 | WO | WO-2017045898 A1 | 3/2017 |
| WO | WO-2016198879 A1 | 12/2016 | WO | WO-2017045899 A1 | 3/2017 |
| | | | · · · | | |
| WO | WO-2016199062 A1 | 12/2016 | WO | WO-2017046247 A1 | 3/2017 |
| WO | WO-2016199065 A1 | 12/2016 | WO | WO-2017046334 A1 | 3/2017 |
| WO | WO-2016199066 A1 | 12/2016 | WO | WO-2017046363 A1 | 3/2017 |
| WO | WO-2016200252 A1 | 12/2016 | WO | WO-2017046566 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016200253 A1 | 12/2016 | WO | WO-2017049653 A1 | 3/2017 |
| WO | WO-2016200255 A1 | 12/2016 | WO | WO-2017049654 A1 | 3/2017 |
| WO | WO-2016200259 A1 | 12/2016 | WO | WO-2017051150 A1 | 3/2017 |
| WO | WO-2016200233 A1 | 12/2016 | WO | WO-2017051130 A1 | 3/2017 |
| | | | | | |
| WO | WO-2016201602 A1 | 12/2016 | WO | WO-2017051348 A1 | 3/2017 |
| WO | WO-2016201606 A1 | 12/2016 | WO | WO-2017051349 A1 | 3/2017 |
| WO | WO-2016201911 A1 | 12/2016 | WO | WO-2017046593 A3 | 4/2017 |
| – | | | | | |
| WO | WO-2016202028 A1 | 12/2016 | WO | WO-2017054424 A1 | 4/2017 |
| WO | WO-2016202033 A1 | 12/2016 | WO | WO-2017054627 A1 | 4/2017 |
| WO | WO-2016202301 A1 | 12/2016 | WO | WO-2017054634 A1 | 4/2017 |
| WO | | | WO | | 4/2017 |
| | WO-2016202302 A1 | 12/2016 | | WO-2017055564 A1 | |
| WO | WO-2016202303 A1 | 12/2016 | WO | WO-2017055584 A1 | 4/2017 |
| WO | WO-2016202304 A1 | 12/2016 | WO | WO-2017055793 A1 | 4/2017 |
| WO | WO-2016207357 A1 | 12/2016 | WO | WO-2017055795 A1 | 4/2017 |
| | | | | | |
| WO | WO-2016208757 A1 | 12/2016 | WO | WO-2017055799 A1 | 4/2017 |
| WO | WO-2016208760 A1 | 12/2016 | WO | WO-2017055801 A1 | 4/2017 |
| | | | | | |
| WO | WO-2016193705 A3 | 1/2017 | WO | WO-2017055802 A1 | 4/2017 |
| WO | WO-2017000239 A1 | 1/2017 | WO | WO-2017055803 A1 | 4/2017 |
| WO | WO-2017001270 A1 | 1/2017 | WO | WO-2017055866 A1 | 4/2017 |
| | | | | | |
| WO | WO-2017001817 A1 | 1/2017 | WO | WO-2017056103 A1 | 4/2017 |
| WO | WO-2017001818 A1 | 1/2017 | WO | WO-2017057286 A1 | 4/2017 |
| WO | WO-2017001819 A1 | 1/2017 | WO | WO-2017057200 711 WO-2017059571 A1 | 4/2017 |
| | | | | | |
| WO | WO-2017001820 A1 | 1/2017 | WO | WO-2017060279 A1 | 4/2017 |
| WO | WO-2017005835 A1 | 1/2017 | WO | WO-2017063256 A1 | 4/2017 |
| | | ~ . | ,,, | | |

| WO | WO-2017063535 A1 | 4/2017 |
|---|--|--|
| — | | |
| WO | WO-2017064051 A1 | 4/2017 |
| WO | WO-2017064322 A1 | 4/2017 |
| WO | WO-2017064323 A1 | 4/2017 |
| WO | WO-2017064324 A1 | 4/2017 |
| | | ., |
| WO | WO-2017064487 A1 | 4/2017 |
| WO | WO-2017066938 A1 | 4/2017 |
| WO | WO-2017066955 A1 | 4/2017 |
| WO | WO-2017067066 A1 | 4/2017 |
| ~ | | |
| WO | WO-2017067326 A1 | 4/2017 |
| WO | WO-2017068098 A1 | 4/2017 |
| WO | WO-2017068099 A1 | 4/2017 |
| WO | WO-2017068100 A1 | 4/2017 |
| WO | 0 201.000100 111 | |
| — | WO-2016096745 A9 | 5/2017 |
| WO | WO-2016173568 A3 | 5/2017 |
| WO | WO-2016198026 A3 | 5/2017 |
| WO | WO-2017051350 A3 | 5/2017 |
| WO | WO-2017070871 A1 | 5/2017 |
| | | |
| WO | WO-2017071297 A1 | 5/2017 |
| WO | WO-2017071298 A1 | 5/2017 |
| WO | WO-2017072239 A1 | 5/2017 |
| WO | WO-2017072277 A1 | 5/2017 |
| — | | |
| WO | WO-2017072284 A1 | 5/2017 |
| WO | WO-2017075753 A1 | 5/2017 |
| WO | WO-2017075759 A1 | 5/2017 |
| WO | WO-2017075827 A1 | 5/2017 |
| | ,, | |
| WO | WO-2017075883 A1 | 5/2017 |
| WO | WO-2017075975 A1 | 5/2017 |
| WO | WO-2017076247 A1 | 5/2017 |
| WO | WO-2017076590 A1 | 5/2017 |
| | | 5/2017 |
| WO | WO-2017081480 A1 | 0,201. |
| WO | WO-2017082728 A1 | 5/2017 |
| WO | WO-2017084107 A1 | 5/2017 |
| WO | WO-2017084488 A1 | 5/2017 |
| WO | WO-2017084489 A1 | 5/2017 |
| | | |
| WO | WO-2017084818 A1 | 5/2017 |
| WO | WO-2017084848 A1 | 5/2017 |
| WO | WO-2017084849 A1 | 5/2017 |
| WO | WO-2017084920 A2 | 5/2017 |
| WO | WO-2017081320 A1 | 5/2017 |
| | | |
| WO | WO-2017085242 A1 | 5/2017 |
| WO | WO-2017081176 A3 | 6/2017 |
| WO | WO-2017088660 A1 | 6/2017 |
| WO | WO-2017089931 A1 | 6/2017 |
| – | | |
| WO | WO-2017091926 A1 | 6/2017 |
| WO | WO-2017092144 A1 | 6/2017 |
| WO | WO-2017093452 A1 | 6/2017 |
| WO | WO-2017093535 A1 | 6/2017 |
| | | |
| WO | WO-2017096512 A1 | 6/2017 |
| WO | WO-2017096971 A1 | 6/2017 |
| WO | WO-2017096988 A1 | 6/2017 |
| WO | WO-2017097172 A1 | 6/2017 |
| WO | WO-2017097172 A1 | 6/2017 |
| – | | |
| WO | WO-2017097821 A1 | 6/2017 |
| WO | WO-2017101030 A1 | 6/2017 |
| WO | WO-2017101058 A1 | 6/2017 |
| WO | | 0/201/ |
| 🗸 | WO-2017101705 A1 | |
| \mathbf{W} | | 6/2017 |
| WO | WO-2017102633 A1 | 6/2017 6/2017 |
| WO | WO-2017102633 A1 WO-2017102686 A1 | 6/2017 6/2017 6/2017 |
| | WO-2017102633 A1 | 6/2017 6/2017 |
| WO | WO-2017102633 A1 WO-2017102686 A1 | 6/2017 6/2017 6/2017 |
| WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 | 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109868 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109868 A1 WO-2017110713 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109868 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109868 A1 WO-2017110713 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 |
| WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017036426 A3 WO-2017113106 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-201710713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113513 A1 WO-2017113845 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-201710713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113513 A1 WO-2017113845 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 WO-2017117742 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO WO | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 WO-2017117742 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO W | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 WO-2017117742 A1 WO-2017118135 A1 WO-2017118135 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO WO WO WO WO WO WO WO WO WO WO WO WO W | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-201710713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 WO-2017117742 A1 WO-2017118135 A1 WO-2017118135 A1 WO-2017118138 A1 WO-2017118138 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |
| WO W | WO-2017102633 A1 WO-2017102686 A1 WO-2017102969 A1 WO-2017107546 A1 WO-2017108268 A1 WO-2017108392 A1 WO-2017108394 A1 WO-2017108429 A1 WO-2017109448 A2 WO-2017109448 A2 WO-2017110713 A1 WO-2017110713 A1 WO-2017113106 A1 WO-2017113513 A1 WO-2017113845 A1 WO-2017114389 A1 WO-2017117725 A1 WO-2017117742 A1 WO-2017118135 A1 WO-2017118135 A1 | 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 6/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 7/2017 |

| WO | WO-2017121253 A1 | 7/2017 |
|---------|--------------------------------------|------------------------------|
| WO | WO-2017121295 A1 | 7/2017 |
| | 0 = 01.1=1=30 111 | ., |
| WO | WO-2017121546 A1 | 7/2017 |
| WO | WO-2017121979 A1 | 7/2017 |
| WO | WO-2017122196 A1 | 7/2017 |
| WO | WO-2017124419 A1 | 7/2017 |
| WO | WO-2017124662 A1 | 7/2017 |
| WO | WO-2017124957 A1 | 7/2017 |
| WO | WO-2017124937 A1 WO-2017128038 A1 | 8/2017 |
| ~ | ,, | |
| WO | WO-2017133056 A1 | 8/2017 |
| WO | WO-2017137138 A1 | 8/2017 |
| WO | WO-2017137554 A1 | 8/2017 |
| WO | WO-2017139963 A1 | 8/2017 |
| WO | WO-2017141017 A1 | 8/2017 |
| WO | WO-2017141018 A1 | 8/2017 |
| WO | WO-2017141016 A1 | 8/2017 |
| | 0 201.1.1000 111 | · |
| WO | WO-2017143494 A1 | 8/2017 |
| WO | WO-2017143495 A1 | 8/2017 |
| WO | WO-2017143515 A1 | 8/2017 |
| WO | WO-2017143865 A1 | 8/2017 |
| WO | WO-2017143953 A1 | 8/2017 |
| WO | WO-2017144400 A1 | 8/2017 |
| WO | WO-2017144861 A1 | 8/2017 |
| WO | WO-2017144881 A1 | 9/2017 |
| | 0 201.1 .5200 111 | 3, 4 4 1 . |
| WO | WO-2017152481 A1 | 9/2017 |
| WO | WO-2017153051 A1 | 9/2017 |
| WO | WO-2017153270 A1 | 9/2017 |
| WO | WO-2017156694 A1 | 9/2017 |
| WO | WO-2017156695 A1 | 9/2017 |
| WO | WO-2017156696 A1 | 9/2017 |
| WO | WO-2017156733 A1 | 9/2017 |
| WO | WO-2017156733 A1 WO-2017156743 A1 | 9/2017 |
| · · · · | ,, | <i>></i> , =· ···· |
| WO | WO-2017161715 A1 | 9/2017 |
| WO | WO-2017161725 A1 | 9/2017 |
| WO | WO-2017163044 A1 | 9/2017 |
| WO | WO-2017163045 A1 | 9/2017 |
| WO | WO-2017163046 A1 | 9/2017 |
| WO | WO-2017163047 A1 | 9/2017 |
| WO | WO-2017163050 A1 | 9/2017 |
| WO | WO-2017163050 A1 | 9/2017 |
| | 0 201.100001 111 | <i>3 ,</i> _ 0 _ 1 . |
| WO | WO-2017163052 A1 | 9/2017 |
| WO | WO-2017164474 A1 | 9/2017 |
| WO | WO-2017166263 A1 | 10/2017 |
| WO | WO-2017166334 A1 | 10/2017 |
| WO | WO-2017167169 A1 | 10/2017 |
| WO | WO-2017167513 A1 | 10/2017 |
| WO | WO-2017173669 A1 | 10/2017 |
| WO | WO-2017173007 A1 | 10/2017 |
| WO | WO-2017173947 A1 WO-2017173951 A1 | 10/2017 |
| · · · · | ,, o 201 ,1,0,01 111 | 10, 101. |
| WO | WO-2017174754 A1 | 10/2017 |
| WO | WO-2017175166 A1 | 10/2017 |
| WO | WO-2017176111 A1 | 10/2017 |
| WO | WO-2017176113 A1 | 10/2017 |
| WO | WO-2017177897 A1 | 10/2017 |
| | | |

OTHER PUBLICATIONS

"Commission Regulation (EC) No. 1275/2008," Official Journal of the European Union, Dec. 17, 2008.

"Guideline Accompanying Commission Regulation (EC) No. 1275/2008," Official Journal of the European Union, Oct. 2009.

"Lighter." Merriam-Webster Online Dictionary. 2009. Merriam-Webster Online. Jun. 8, 2009 [http://www.merriam-webster.com/dictionary/lighter]. cited byapplicant.

AMB. Manual:TranX160/Rev.10-06. published 2004-2006.

Baker et al., "The pyrolysis of tobacco ingredients," J. Anal. Appl. Pyrolysis, vol. 71, pp. 223-311 (2004).

Bombick, et al. Chemical and biological studies of a new cigarette that primarily heats tobacco. Part 2. In vitro toxicology of mainstream smoke condensate. Food and Chemical Toxicology. 1997; 36:183-190.

Bombick, et al. Chemical and biological studies of a new cigarette that primarily heats tobacco. Part 3. In vitro toxicity of whole smoke. Food and Chemical Toxicology. 1998; 36:191-197.

Borgerding, et al. Chemical and biological studies of a new cigarette that primarily heats tobacco. Part 1. Chemical composition of mainstream smoke. Food and Chemical Toxicology. 1997; 36:169-182.

Breland, Alison, et al. "Electronic cigarettes: what are they and what do they do?." Annals of the New York Academy of Sciences 1394.1 (2017): 5-30.

Brown, Christopher J., et al., "Electronic cigarettes: product characterisation and design considerations." Tobacco control 23.suppl 2 (2014): ii4-ii10.

Bullen, et al., "Effect of an electronic nicotine delivery device (e cigarette) on desire to smoke and withdrawal, user preferences and nicotine delivery: randomized cross-over trial," Tobacco Control, 19(2), pp. 98-103. Apr. 2010.

Burch, et al., "Effect of pH on nicotine absorption and side effects produced by areosolized nicotine," Journal of Aerosol Medicine: Deposition, Clearance, and Effects in the Lung, 6(1), pp. 45-52. 1993.

Capponnetto, et al., "Successful smoking cessation with cigarettes in smokers with a documented history of recurring relapses: a case series," Journal of Medical Case Reports; 5(1), 6 pages. 2011.

Davis & Nielsen, "Marketing, Processing and Storage: Green Leaf Threshing and Redrying Tobacco," Tobacco Production, Chemistry and Technology, (1999) Section 10B, pp. 330-333, Bill Ward, Expert Leaf Tobacco Company, Wilson, North Carolina, USA.

E-Cigarette Forum; pg-gv-peg (discussion/posting); retrieved from the Internet: https://e-cigarette-forum.com/forum/threads/pg-vg-peg.177551; 7 pgs.; Apr. 8, 2011.

ECF; Any interest in determining nicotine—by DVAP; (https://www.e-cigarette-forum.com/forum/threads/any-interest-in-

determin- ing-nicotine-by-dvap.35922/); blog posts dated: 2009; 8 pgs.; print/retrieval date: Jul. 31, 2014.

Electronic Vaporization Device/ Gizmodo Pax 2 Vaporizer/ Gizmodo; retrieved from http://gizmodo.com/pax-2-vaporizer-reviews-its-like-smoking-in-the-future-1718310779; posted Jul. 23, 2015, retrieved Oct. 17, 2016.

Farsalinos, et al., "Electronic cigarettes do not damage the heart," European Society of Cardiology, 4 pages, (http://www.escardio.org/The-ESC/Press-Office/Press-releases/Electronic-cigarettes-do-not-damage-the-heart). Aug. 25, 2012.

Farsalinos, Konstantinos E., et al. "Protocol proposal for, and evaluation of, consistency in nicotine delivery from the liquid to the aerosol of electronic cigarettes atomizers: regulatory implications." Addiction 111.6 (2016): 1069-1076.

Farsalinos, Konstantinos E., et al. *Analytical Assessment of e-Cigarettes: From Contents to Chemical and Particle Exposure Profiles.* pp. 1-35. Elsevier, 2016.

FC Vaporizer Review Forum; Pax Vaporizer by Ploom; retrieved from: http://fuckcombustion.com/threads/pax-vaporizer-by-ploom. 6223/; pp. 2 & 11 (2 pgs.); retrieval date: Nov. 16, 2015.

Flouris, et al., "Acute impact of active and passive electronic cigarette smoking on serum cotinine and lung function," Inhal. Toxicol., 25(2), pp. 91-101. Feb. 2013.

Food & Drug Administration; Warning letter to the Compounding Pharmacy, retrieved Oct. 10, 2014 from http://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2002/ucm144843.htm, 3 pages. Apr. 9, 2002.

Geiss, Otmar, Ivana Bianchi, and Josefa Barrero-Moreno. "Correlation of volatile carbonyl yields emitted by e-cigarettes with the temperature of the heating coil and the perceived sensorial quality of the generated vapours." *International journal of hygiene and environmental health* 219.3 (2016): 268-277.

Gillman, I. G., et al. "Effect of variable power levels on the yield of total aerosol mass and formation of aldehydes in e-cigarette aerosols." Regulatory Toxicology and Pharmacology 75 (2016): 58-65. Giorgio, Agostino. "E-Cig Digital Design for the Smoke Control Optimization." International Journal of Applied Engineering Research 11.8 (2016): 6018-6023.

Goniewicz, et al., "Nicotine levels in electronic cigarettes," Nicotine Tobacco Research, 15(1), pp. 158-166, Jan. 2013.

Gregory, Andrew, "E-cigarettes to go on prescription under move to class them as medicines," Mirror, Jun. 12, 2013. http://www.mirror.co.uk/news/uk-news/e-cigarettes-go-prescription-under-move-1949018.

Grotenhermen, et al., Developing science-based per se limits for driving under the influence of cannabis (DUIC): findings and

recommendations by an expert panel; retreived Feb. 9, 2017 from (http://www.canorml.org/healthfacts/DUICreport.2005.pdf); Sep. 2005.

Harvest Vapor, American Blend Tobacco (product info), retrieved from the internet (http://harvestvapor.com/), 2 pages. Oct. 10, 2014. Hurt, et al., "Treating tobacco dependence in a medical setting," CA: A Cancer Journal for Clinicians, 59(5), pp. 314-326. Sep. 2009. Ijoy. "Who we are." *IJOY Diamond PD270 Kit*, Date Accessed Feb. 20, 2018. www.ijoycig.com/product/item-473.html.

Inchem; Benzoic Acid; JECFA Evaluation Summary; retrieved Oct. 10, 2014 from http://www.inchem.org/documents/jecfa/feceval/jec_184.htm, 2 pages. May 28, 2005.

Inchem; Levulinic Acid; JECFA Evaluation Summary; retrieved Oct. 10, 2014 from http://www.inchem.org/documents/jecfa/feceval/jec_1266.htm, 2 pages. Mar. 10, 2003.

Inchem; Pyruvic Acid; JECFA Evaluation Summary; retrieved Oct. 10, 2014 from http://www.inchem.org/documents/jecfa/feceval/jec_2072.htm, 2 pages. Jan. 29, 2003.

Inchem; Sorbic Acid; JECFA Evaluation Summary; retrieved Oct. 10, 2014 from http://www.inchem.org/documents/jecfa/feceval/jec_2181.htm, 2 pages. May 29, 2005.

Ingebrethsen et al., "Electronic Cigarette aerosol particle size distribution measurements", Inhalation Toxicology, 2012; 24 (14): 976-984.

Kanger K1 Stabilized Wood DNA 75 Box Mod—KangerTech. Date Accessed Feb. 20, 2018. https://kangeronline.com/products/kanger-k1-stabilized-wood-dna-75-box-mod.

Kuo et al. Applications of Turbulent and Multiphase Combustion, Appendix D: Particle Size—U.S. Sieve Size and Tyler Screen Mesh Equivalents, 2012, p. 541-543.

Marshall, John R., Shahram Lotfipour, and Bharath Chakravarthy. "Growing Trend of Alternative Tobacco Use Among the Nation's Youth: A New Generation of Addicts." *Western Journal of Emergency Medicine* 17.2 (2016): 139.

McCann et al., "Detection of carcinogens as mutagens in the Salmonella/microsome test: Assay of 300 chemicals: discussion." Proct. Nat. Acad. Sci, USA, Mar. 1976, vol. 73 (3), 950-954.

Mylaps, "Rechargeable Transponder Battery Status and Charging Instructions," Sep. 9, 2010.

Nicoli et al., Mammalian tumor xenografts induce neovascularization in Zebrafish embryos. Cancer Research, 67:2927-2931 (2007). PAX Labs, Inc.; JUUL product information © 2016; retrieved from https://www.juulvapor.com/shop-juul/; 6 pgs., retrieved Mar. 9, 2016.

Perfetti, "Structural study of nicotine salts," Beitrage Zur Tabakforschung International, Contributions to Tobacco Research, 12(2), pp. 43-54. Jun. 1983.

Polosa, Riccardo, et al. "Effect of an electronic nicotine delivery device (e-Cigarette) on smoking reduction and cessation: a prospective 6-month pilot study." BMC public health 11.1 (2011): 786. Poynton, Simon, et al. "A novel hybrid tobacco product that delivers a tobacco flavour note with vapour aerosol (part 1): Product operation and preliminary aerosol chemistry assessment." Food and Chemical Toxicology (2017).

Poynton, Simon, et al. "A novel hybrid tobacco product that delivers a tobacco flavour note with vapour aerosol (Part 1): product operation and preliminary aerosol chemistry assessment." *Food and Chemical Toxicology* 106 (2017): 522-532.

Seeman, et al., "The form of nicotine in tobacco. Thermal transfer of nicotine and nicotine acid salts to nicotine in the gas phase," J Aric Food Chem, 47(12), pp. 5133-5145. Dec. 1999.

Smok. *Pro Color—SMOK® Innovation keeps changing the vaping experience*!, Date Accessed Feb. 20, 2018. www.smoktech.com/kit/procolor.

SRNT Subcommittee on Biochemical Verification, "Biochemical verification of tobacco use and cessation," Nicotine & Tobacco Research 4, pp. 149-159, 2002.

Tarantola, Andrew. "The Pax 2 vaporizer makes its predecessor look half-Baked." Engadget, Jul. 14, 2016, www.engadget.com/2015/04/20/pax-2-vaporizer-review/. Accessed Sep. 5, 2017.

Torikai et al., "Effects of temperature, atmosphere and pH on the generation of smoke compounds during tobacco pyrolysis," Food and Chemical Toxicology 42 (2004) 1409-1417.

Vansickel, et al. "A clinical laboratory model for evaluating the acute effects of electronic cigarettes: Nicotine delivery profile and cardiovascular and subjective effects," Cancer Epidemiology Biomarkers Prevention, 19(9), pp. 1945-1953. Jul. 20, 2010.

Vansickel, et al., "Electronic cigarettes: effective nicotine delivery after acute administration," Nicotine & Tobacco Research, 15(1), pp. 267-270. Jan. 2013.

VapeWorld; Original PAX Vaporizers for Portable and Home Use; retrieved from: https://www.vapeworld.com/pax-vaporizer-by-ploom?gclid=CPCi1PKojskCFU06gQodPr; 9 pgs.; retrieved Nov. 13, 2015.

Vaporesso (Shenzhen Smoore Technology Limited). "Target Pro Vape Mod." *Vape Batteries & Mods | Target Pro Vape Mod | Vaporesso*, Date Accessed Feb. 20, 2018. www.vaporesso.com/vape-batteries-and-mods/target-pro-vape-mod.

Vaporesso (Shenzhen Smoore Technology Limited). "TAROT PRO Vape Mod." *Vape Batteries & Mods | Tarot Pro Vape Mod | Vaporeso*, Date Accessed Feb. 20, 2018. www.vaporesso.com/vape-batteries-and-mods/tarot-pro-vape-mod.

Wells. "Glycerin as a Constituent of Cosmetics and Toilet Preparations." Journal of the Society of Cosmetic Chemists, 1958; 9(1): 19-25.

Williams, Monique, and Prue Talbot. "Variability among electronic cigarettes in the pressure drop, airflow rate, and aerosol production." Nicotine & Tobacco Research 13.12 (2011).

Youtube, "Pax 2 Unboxing," retreived from www.youtube.com/watch?v=Vjccs8co3YY, posted Apr. 20, 2015.

YouTube; Firefly Vaporizor Review w/ Usage Tips by the Vape Critic; retrieved from the internet (http://www.youtube.com/watch?v=1J38N0AV7wl); published Dec. 10, 2013; download/print date: Feb. 18, 2015.

Youtube; Pax by Ploom Vaporizer Review; posted Aug. 14, 2013, retrieved Sep. 8, 2016, https://www.youtube.com/watch?v=Jm06zW3-cxQ.

Zhang, et al., "In vitro partical size distributions in electronic and conventional cigarette aerosols suggest comparable deposition patterns," Nicotine Tobacci Research, 15(2), pp. 501-508. Feb. 2013.

* cited by examiner

Primary Examiner — Michael A. Pratt

(74) Attorney, Agent, or Firm — Mintz Levin Cohn Ferris Glovsky and Popeo, P.C.; Michael D. Van Loy

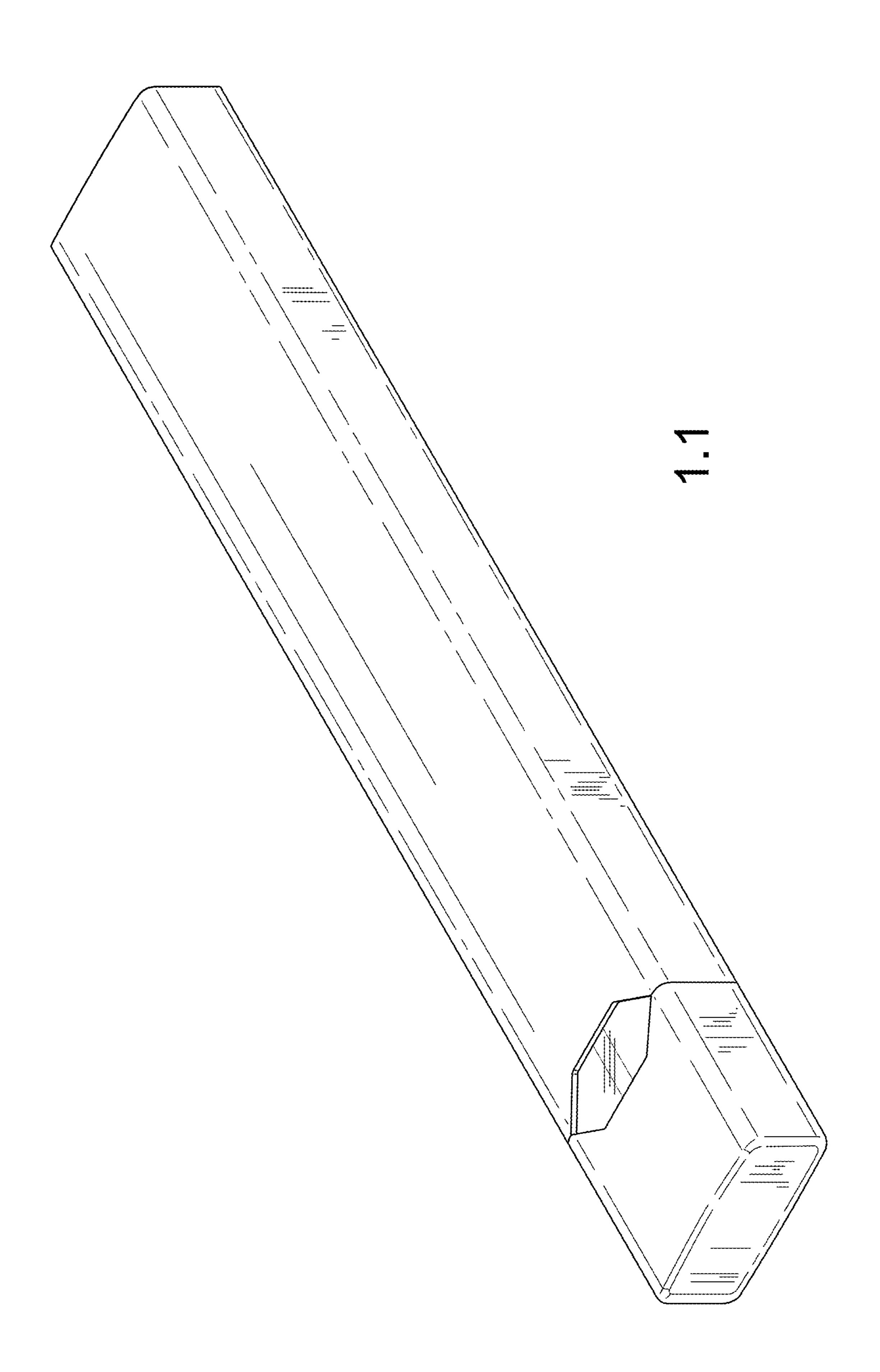
(57) CLAIM

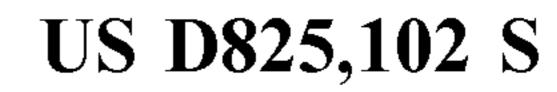
The ornamental design for a vaporizer device with cartridge, as shown and described.

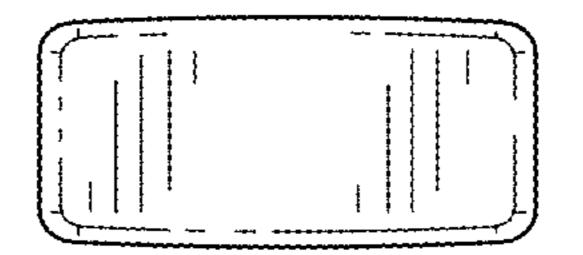
DESCRIPTION

- 1.1 is a top, rear, and right side perspective view of a vaporizer device with cartridge showing a first embodiment of our design;
- 1.2 is a top view thereof;
- 1.3 is a left view thereof;
- 1.4 is a rear view thereof;
- 1.5 is right side view thereof;
- 1.6 is a front view thereof; and
- 1.7 is a bottom view thereof.
- 2.1 is a top, rear, and right side perspective view of a vaporizer device with cartridge showing a second embodiment of our design;
- 2.2 is a top view thereof;
- 2.3 is a left view thereof;
- 2.4 is a rear view thereof;
- 2.5 is right side view thereof;
- 2.6 is a front view thereof; and
- 2.7 is a bottom view thereof.
- 3.1 is a top, rear, and right side perspective view of a vaporizer device with cartridge showing a third embodiment of our design;
- 3.2 is a top view thereof;
- 3.3 is a left view thereof;
- 3.4 is a rear view thereof;
- 3.5 is right side view thereof;
- 3.6 is a front view thereof; and,
- 3.7 is a bottom view thereof.

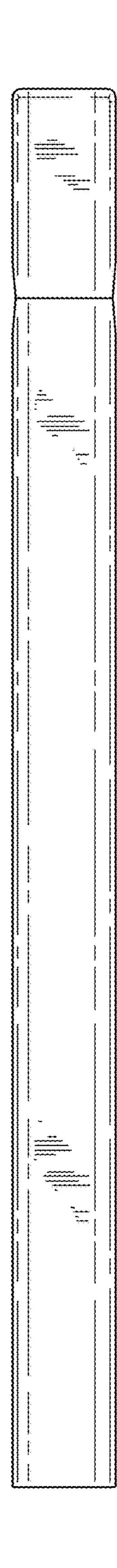
1 Claim, 21 Drawing Sheets

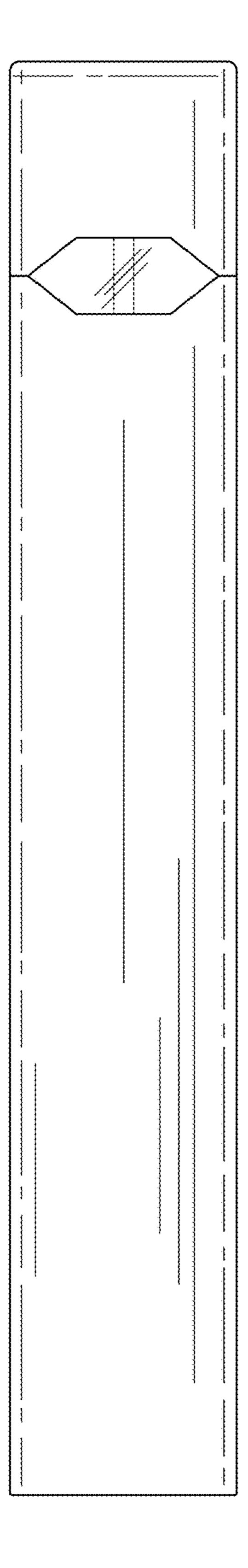




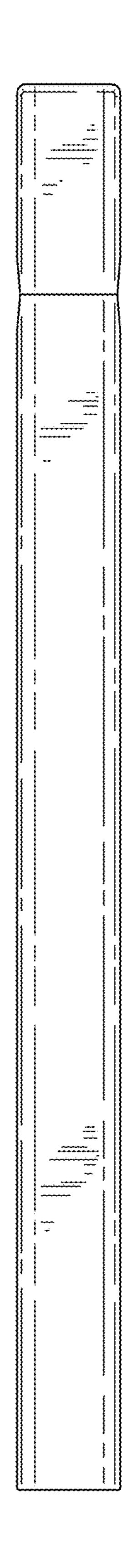


1.2

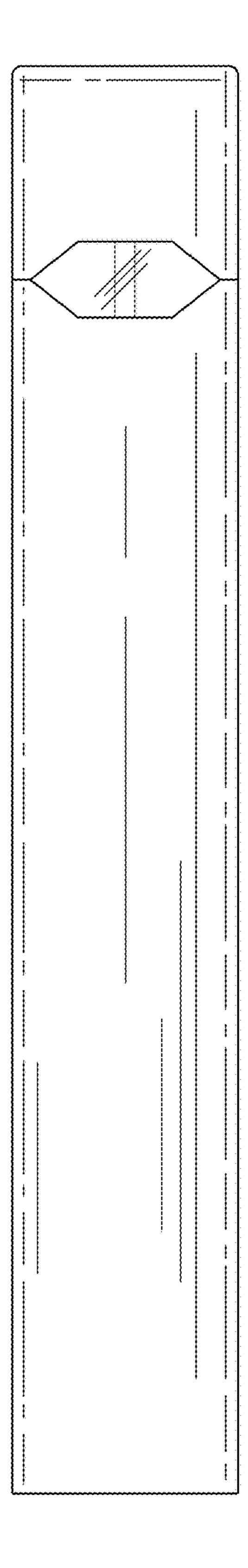




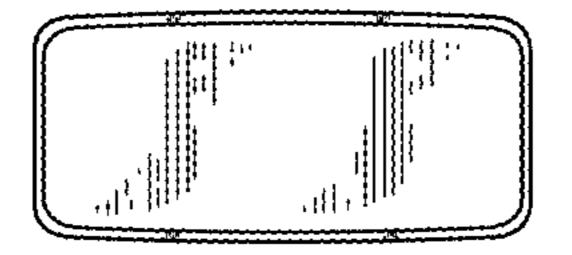
1 4



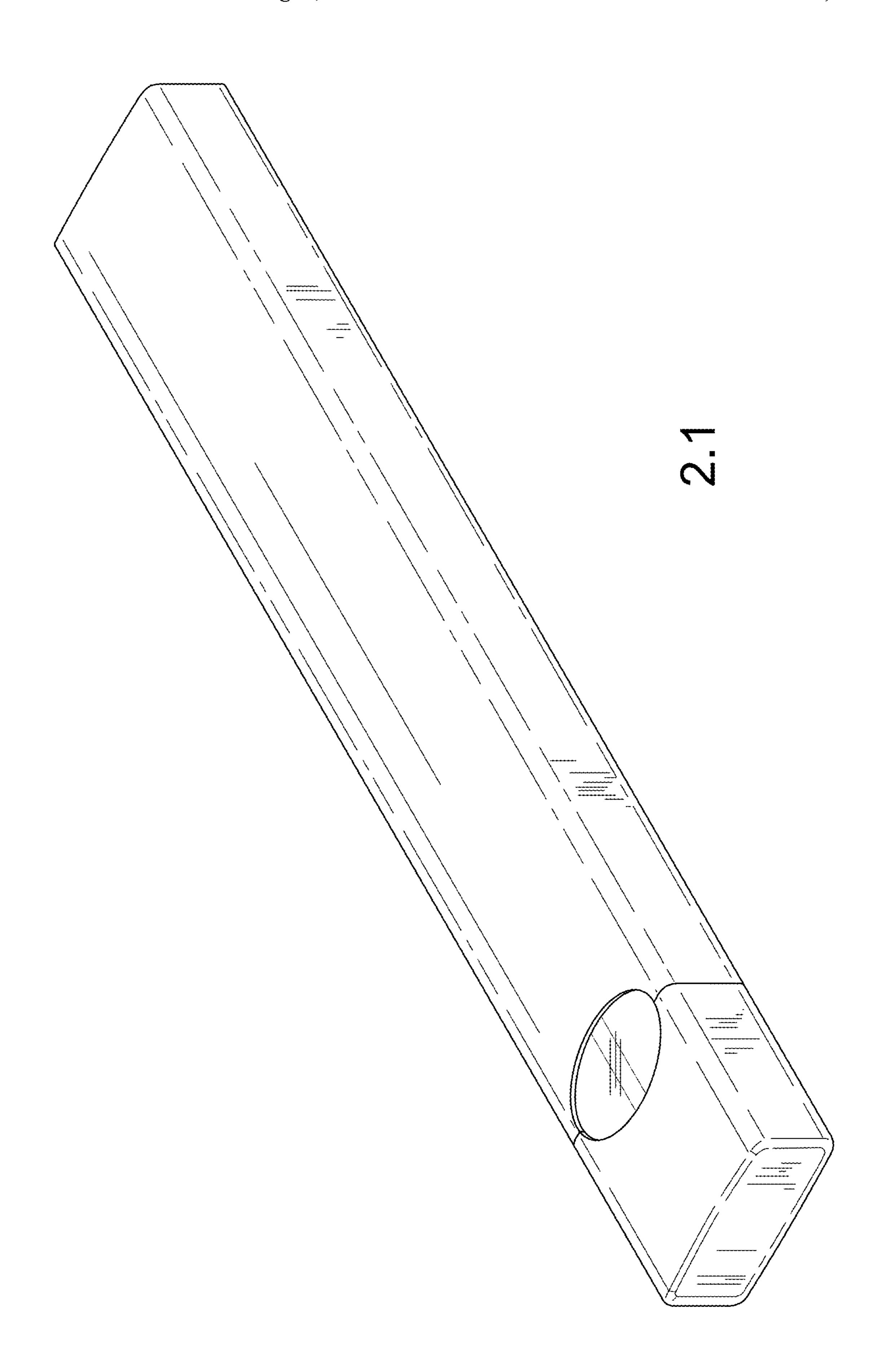
1.5

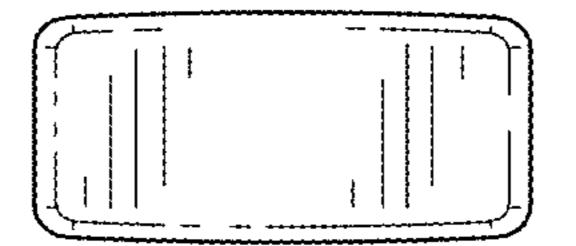


1.6

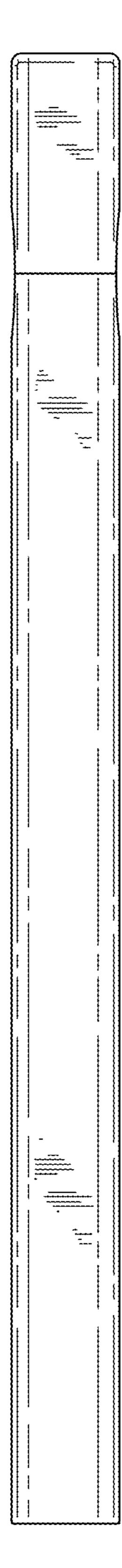


1.7

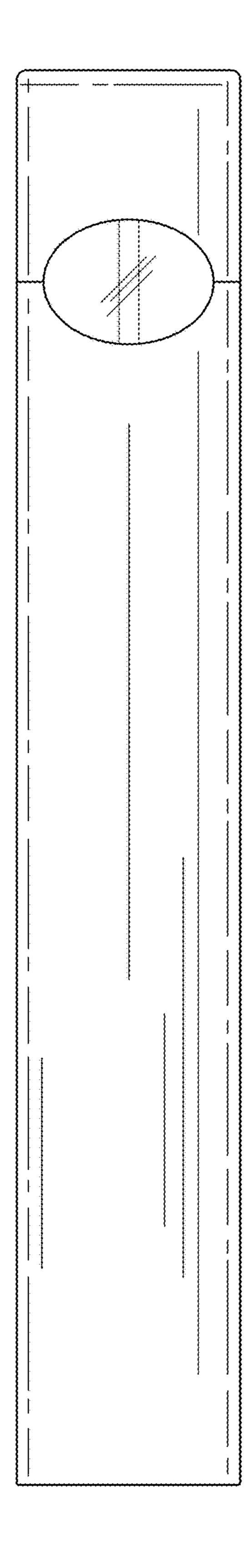


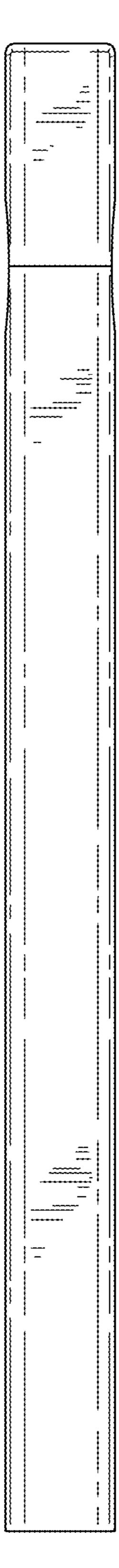


2.2

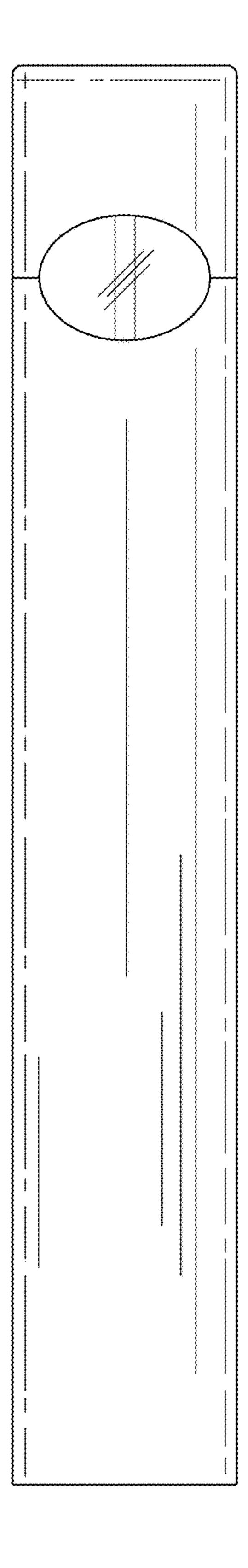


2.3

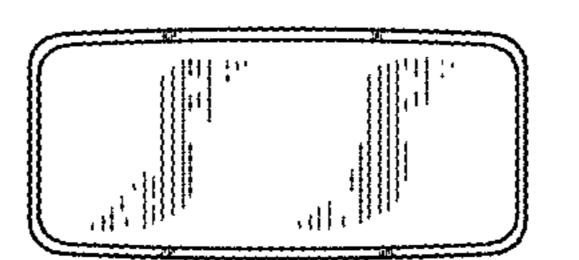


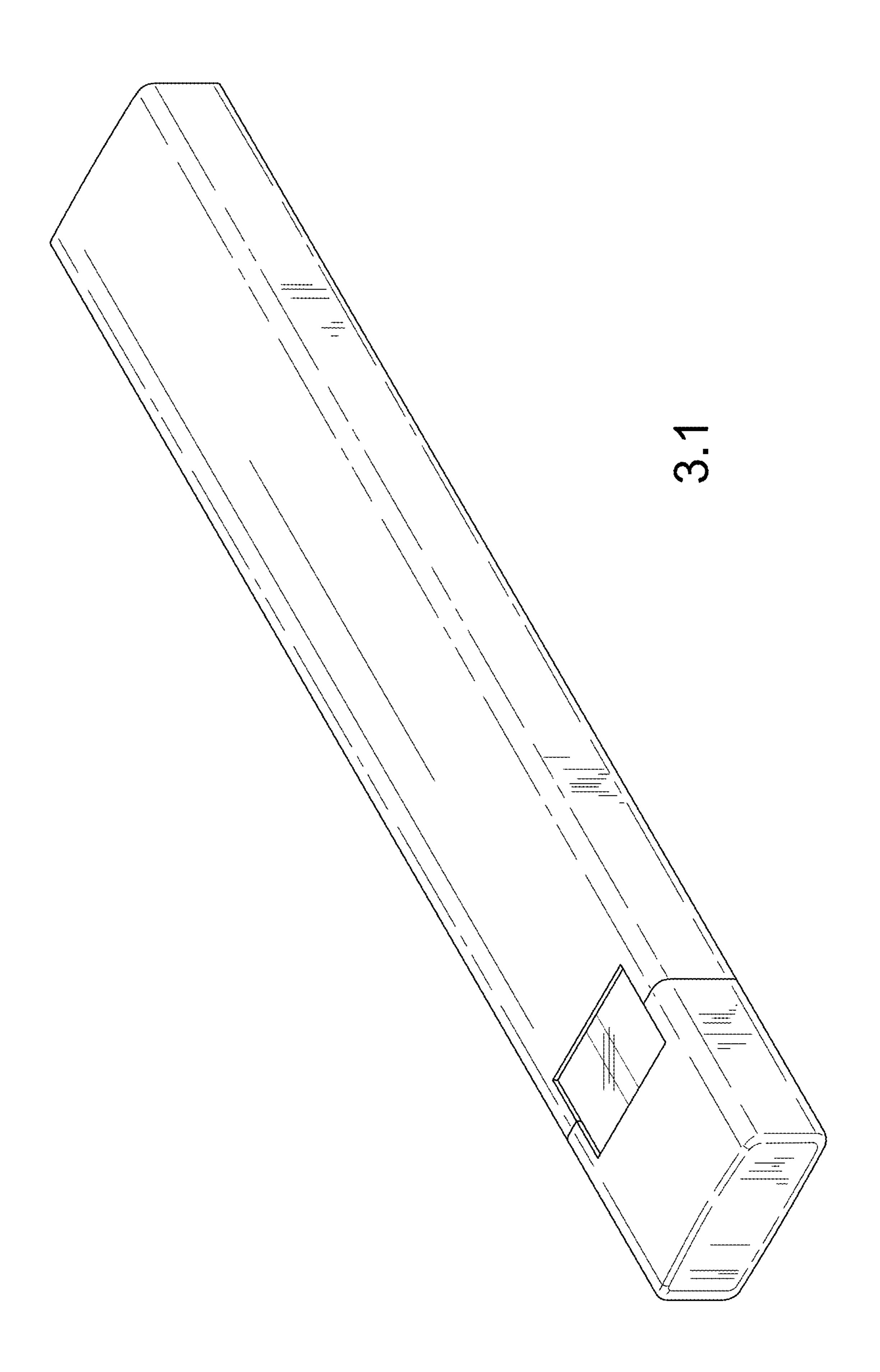


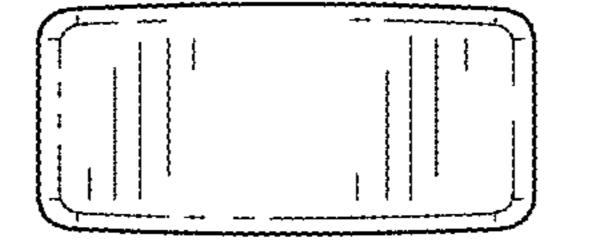
2.5



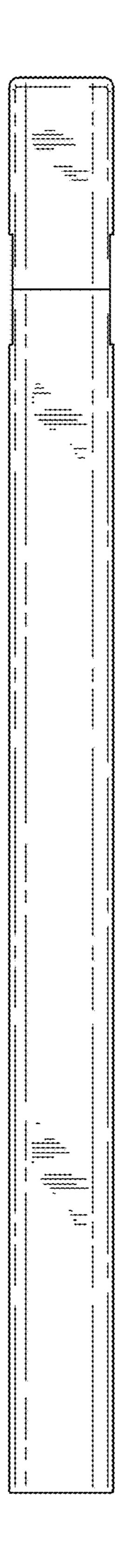
2.6

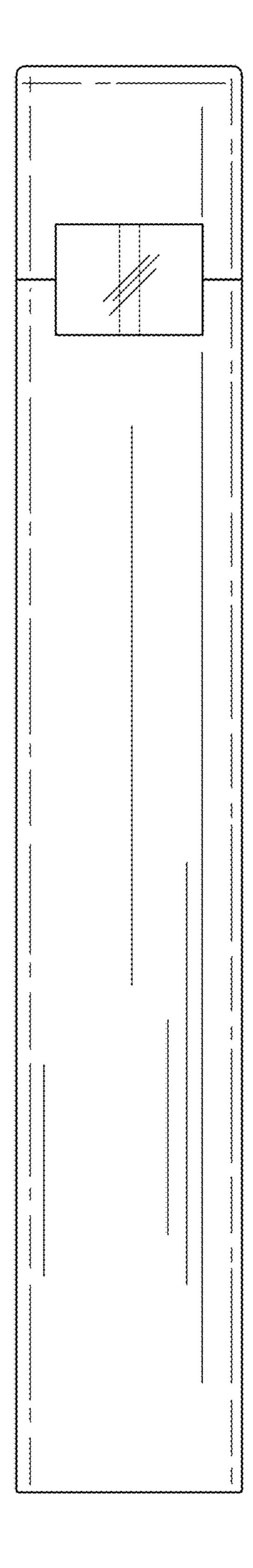


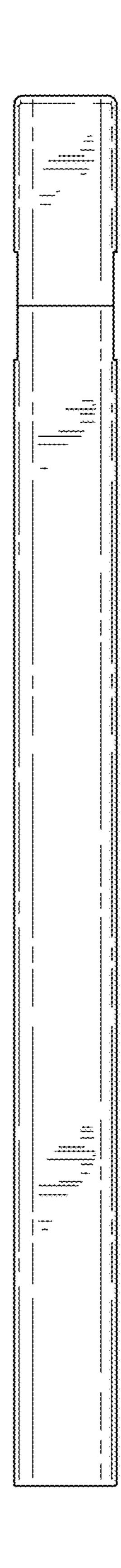


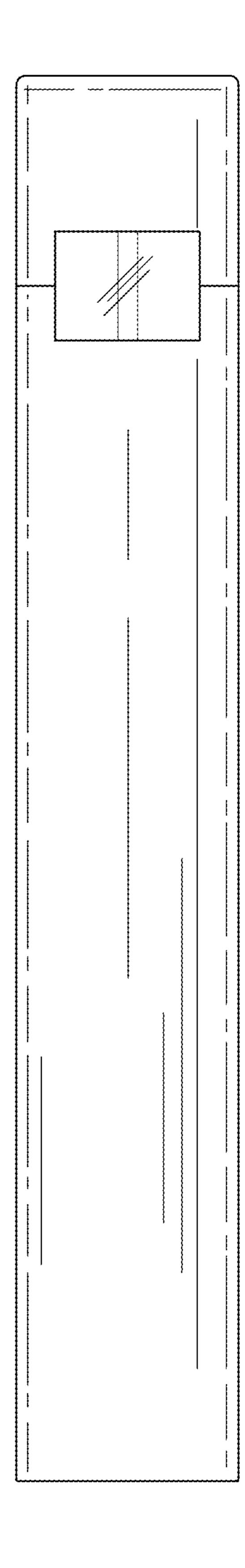


3.2

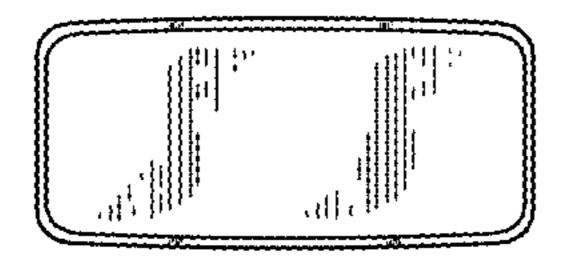








3.6



3.7

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : D825,102 S
Page 1 of 1

APPLICATION NO. : 35/001169

DATED : August 7, 2018

INVENTOR(S) : Adam Bowen et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

Item (30), at Column 1, please add:

Foreign Application Priority Data

Chinese Application No. 201630043697.0, filed on February 8, 2016.

Signed and Sealed this
Eighteenth Day of December, 2018

Andrei Iancu

Director of the United States Patent and Trademark Office