



US00D902144S

(12) **United States Design Patent**
Fukuda

(10) **Patent No.:** **US D902,144 S**

(45) **Date of Patent:** **** Nov. 17, 2020**

(54) **SOLAR CELL**

(71) Applicant: **KANEKA CORPORATION**, Osaka
(JP)

(72) Inventor: **Masanori Fukuda**, Toyooka (JP)

(73) Assignee: **Kaneka Corporation**, Osaka (JP)

(**) Term: **15 Years**

(21) Appl. No.: **29/693,177**

(22) Filed: **May 31, 2019**

(30) **Foreign Application Priority Data**

Feb. 8, 2019 (JP) 2019-002604

(51) **LOC (12) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/102**

(58) **Field of Classification Search**
USPC D13/101, 102, 107, 133, 184, 199
CPC H01L 31/02; H01L 31/042; H01L 31/048;
H01L 31/0525; H01L 31/0203; H01L
31/02008; H01L 27/142; H01L 27/1421;
Y02E 10/40; Y02E 10/47; Y02E 10/50;
Y02E 10/52; Y02E 10/54; Y02E 10/544;
H02S 30/10; H02S 40/34; H02S 40/44;
H02J 7/0042

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D263,393 S * 3/1982 Lindmayer D13/102
D658,119 S * 4/2012 Bamberg D13/102
D670,239 S * 11/2012 Kannou D13/102
D741,793 S * 10/2015 Lim H01L 31/02243
D13/102
D742,306 S * 11/2015 Tohoda D13/102
D762,163 S * 7/2016 Parilla D13/102
9,469,896 B2 * 10/2016 Antonaia C23C 14/14

D810,675 S 2/2018 Detrick et al.
D830,962 S 10/2018 Fang et al.
D830,963 S 10/2018 Fang et al.
D846,491 S 4/2019 Fang et al.
2009/0277491 A1* 11/2009 Nakamura H01L 31/0504
136/244

(Continued)

FOREIGN PATENT DOCUMENTS

JP 1624705 2/2019
KR 30-0679934 S 2/2013

(Continued)

OTHER PUBLICATIONS

Maximize to Tpo Power Point, p. 11 (Design Division Publicly
Known Material No. HC25006501). Publicly known date: Mar. 15,
2013.

(Continued)

Primary Examiner — Derrick E Holland
(74) *Attorney, Agent, or Firm* — Sterne, Kessler,
Goldstein & Fox P.L.L.C.

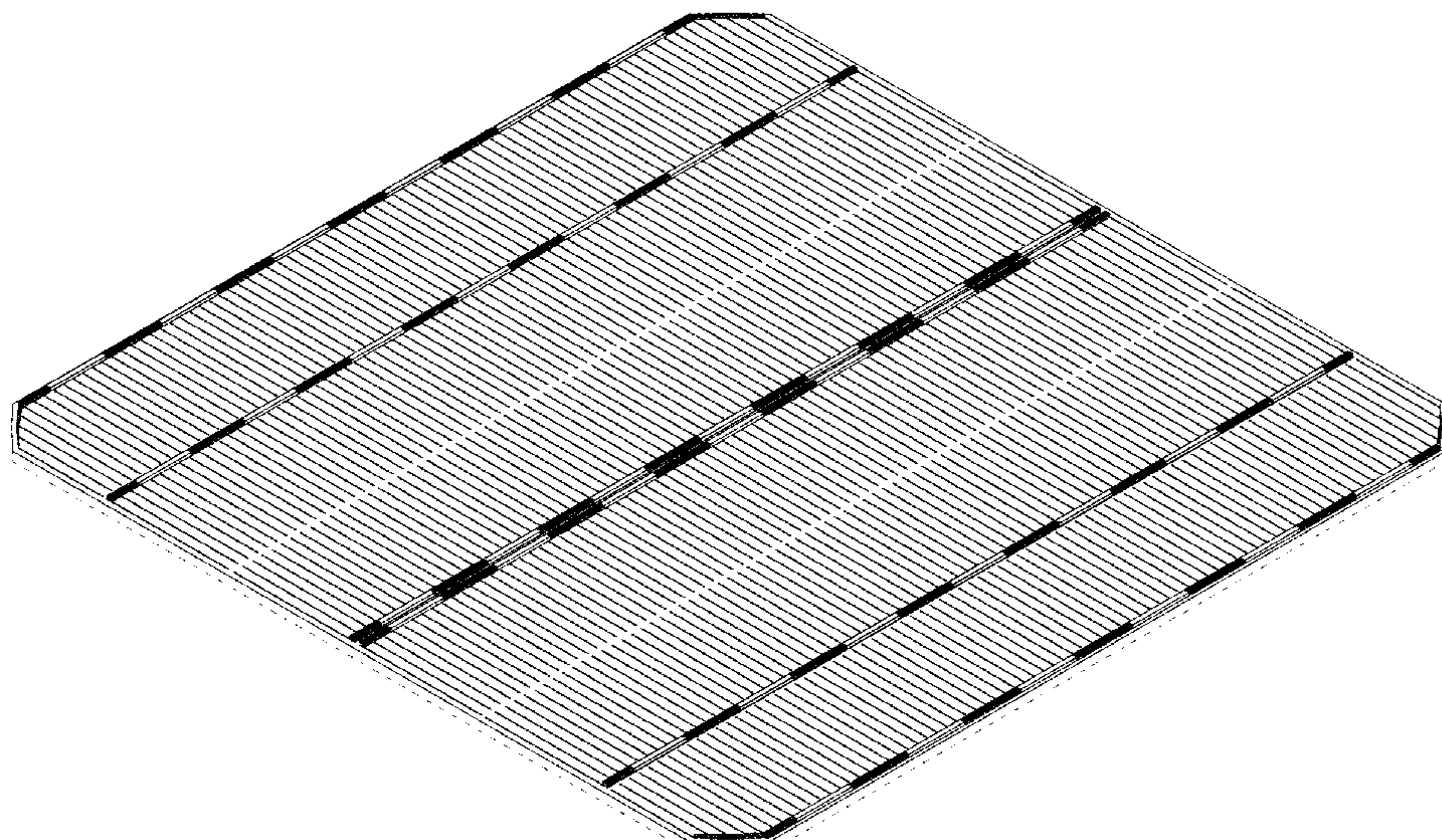
(57) **CLAIM**

The ornamental design for a solar cell, as shown and
described.

DESCRIPTION

FIG. 1 is a front perspective view of a solar cell showing the
claimed design;
FIG. 2 is a front view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a top plan view thereof, the bottom plan view being
a mirror image thereof; and,
FIG. 5 is a right side view thereof, the left side view being
a mirror image thereof.
In the drawings, the broken lines show portions of the solar
cell that form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2010/0126551 A1* 5/2010 Okamoto H01L 31/0512
136/244

FOREIGN PATENT DOCUMENTS

KR 30-0731783-1 S 3/2014
TW D194919 S 12/2018

OTHER PUBLICATIONS

TWP 156 Multicrystalline Silicon Sollar Cells, p. 1, TWP156
(Design Division Publicly Known Material No. HD26001527).
Publicly known date: May 9, 2014.

* cited by examiner

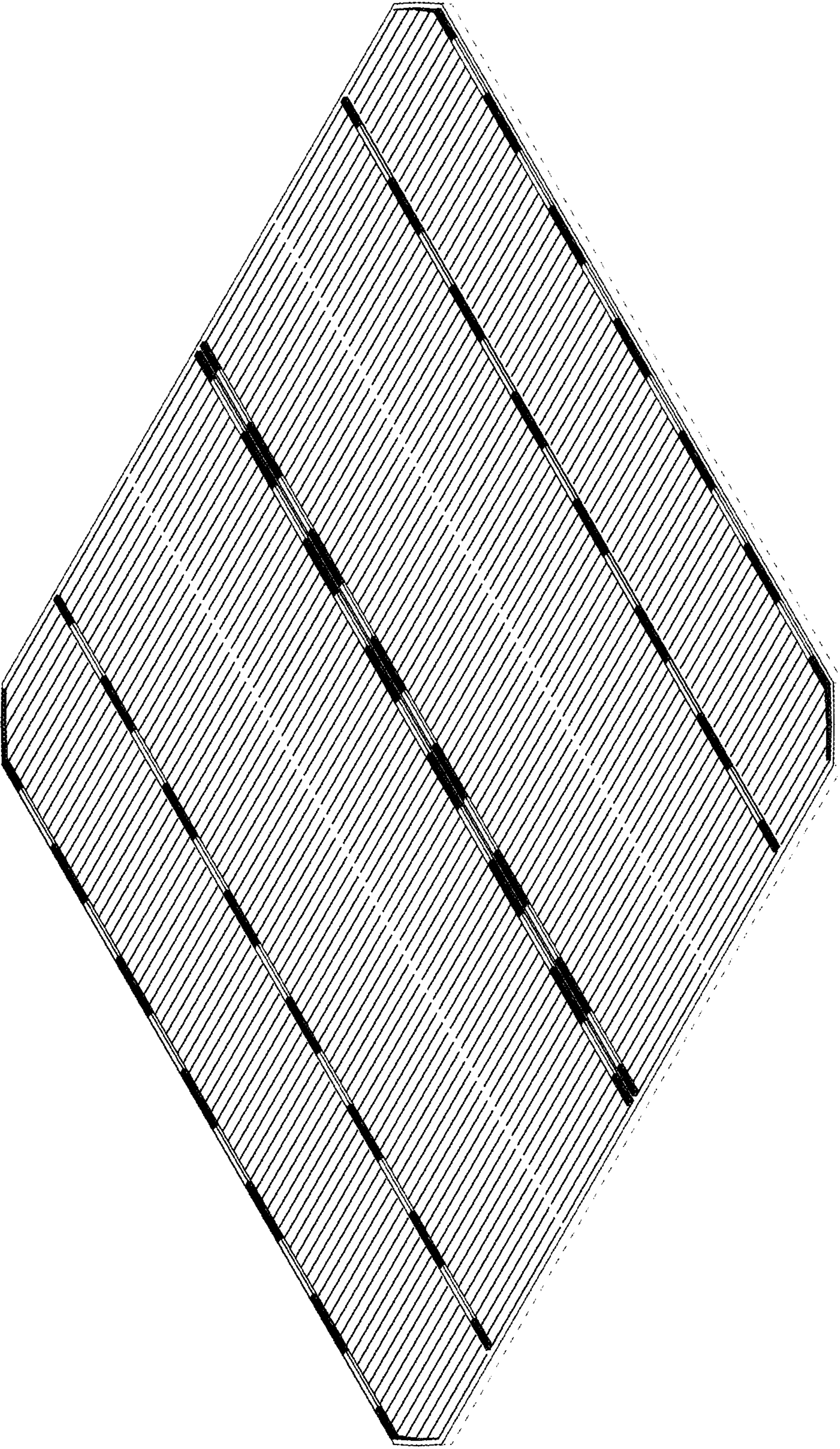


FIG. 1

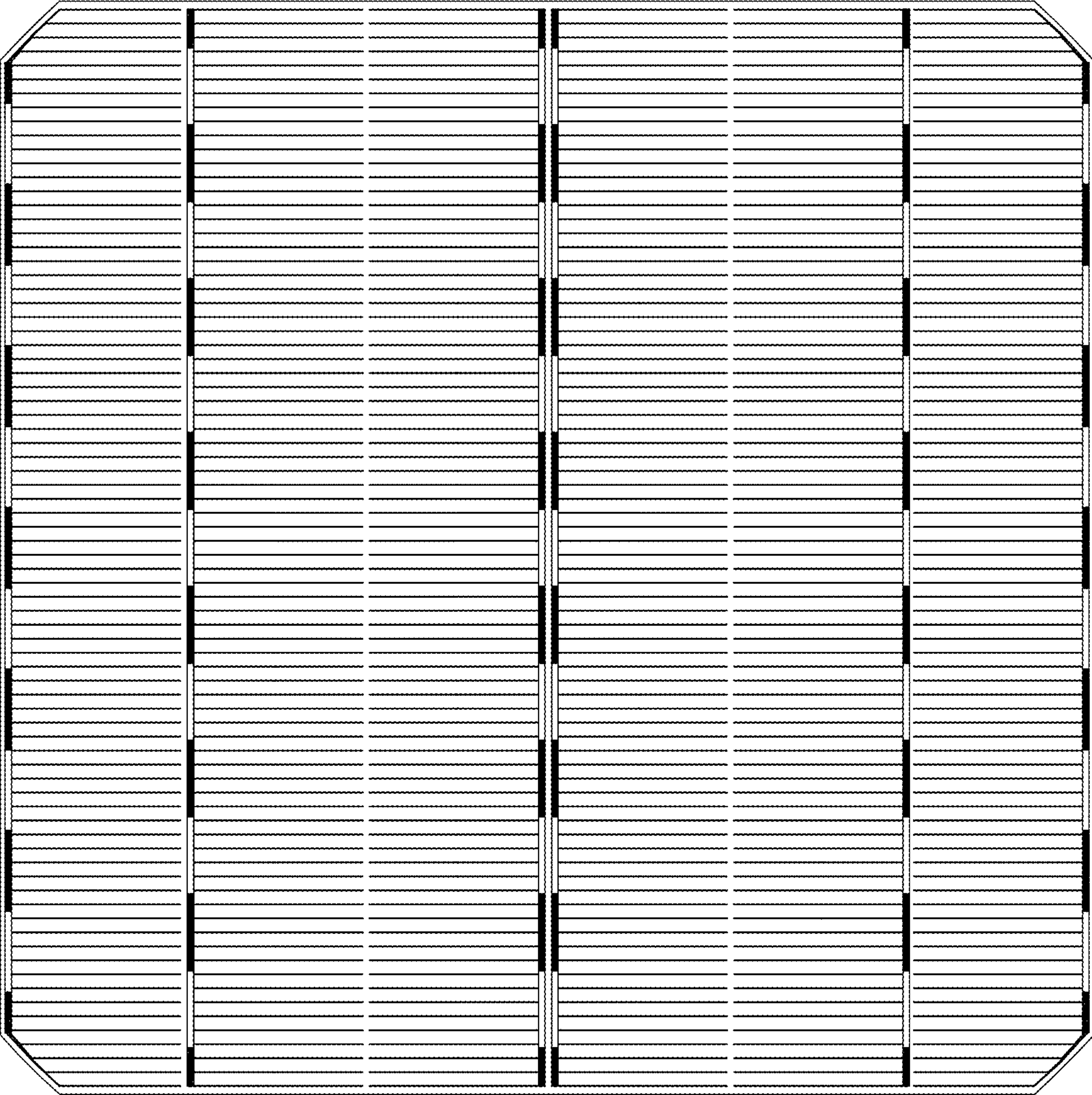


FIG. 2

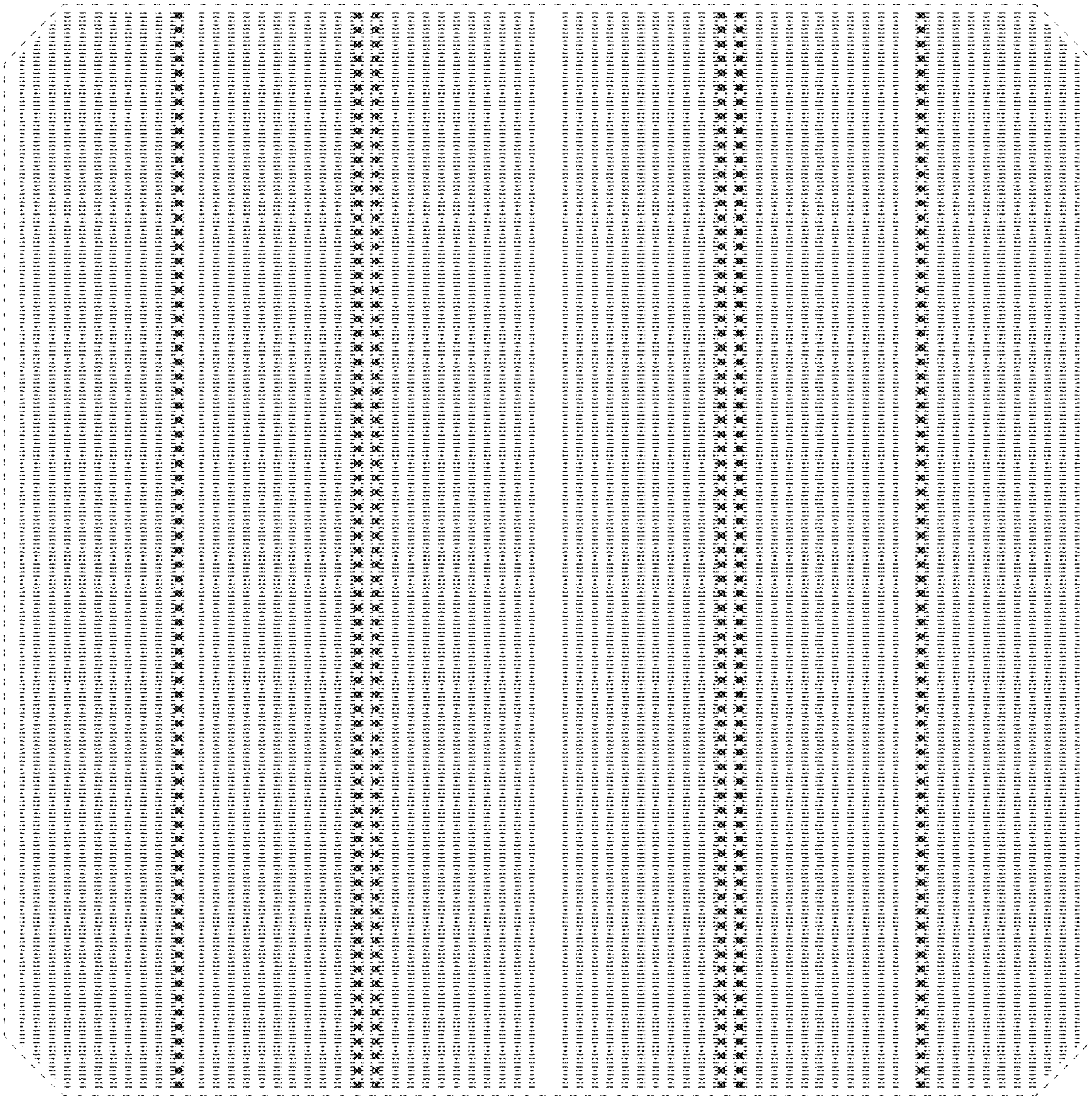


FIG. 3



FIG. 4

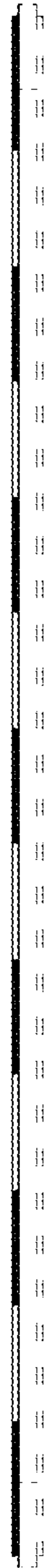


FIG. 5