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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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[Continued on next page]

(54) **Title:** METHODS OF FORMING POLYCRYSTALLINE ELEMENTS AND STRUCTURES FORMED BY SUCH METHODS

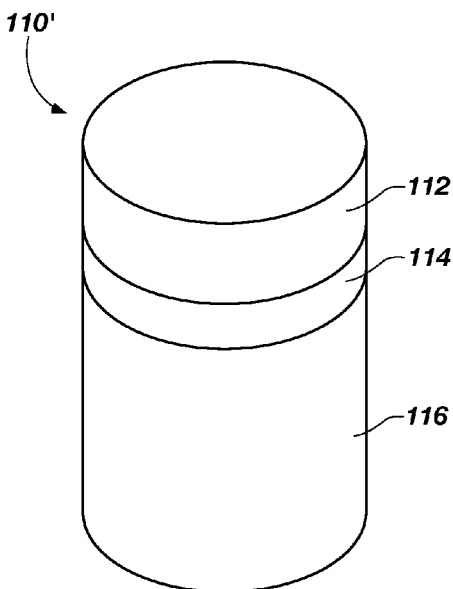


FIG. 2

(57) **Abstract:** Methods of forming a polycrystalline element comprise forming a polycrystalline table on a first substrate. Catalyst material may be removed from at least a portion of the polycrystalline table. The polycrystalline table and a portion of a first substrate attached to the polycrystalline table may be removed from a remainder of the first substrate. The portion of the first substrate may be attached to another substrate. Polycrystalline elements comprise a polycrystalline table attached to a portion of a first substrate on which the polycrystalline table was formed another substrate attached to the portion of the first substrate.





Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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A. CLASSIFICATION OF SUBJECT MATTER*E21B 10/46(2006.01)i, E21B 10/573(2006.01)i, C22C 26/00(2006.01)i, E21B 10/567(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

E21B 10/46; B24D 3/10; E21B 10/567; E21B 10/573; B21K 5/04; E21B 10/42

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: polycrystalline, substrate, recess, and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2011-0036641 A1 (LYONS, NICHOLAS J.) 17 February 2011 See paragraph 37 and figure 3B	18-20 1-17
A	US 2010-0181117 A1 (SCOTT, DANNY E.) 22 July 2010 See paragraphs 15-17 and figures 2A-2D	1-20
A	US 2011-0042149 A1 (SCOTT, DANNY E. et al.) 24 February 2011 See paragraphs 27-31 and figures 1, 2	1-20
A	US 2010-0243337 A1 (SCOTT, DANNY E.) 30 September 2010 See paragraphs 20-22 and figure 1	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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