(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 April 2011 (14.04.2011)

PCT

(10) International Publication Number
WO 2011/043176 A1

(51) International Patent Classification:
H01L 29/786 (2006.01) *H01L 21/336* (2006.01)
G09F 9/30 (2006.01) *H01L 21/363* (2006.01)

(21) International Application Number:
PCT/JP2010/066118

(22) International Filing Date:
13 September 2010 (13.09.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2009-234507 8 October 2009 (08.10.2009) JP

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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, 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, RO, RS, RU, 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.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

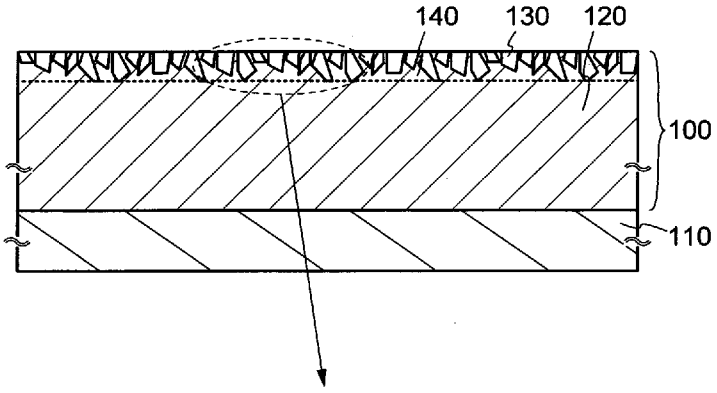
Published:

— *with international search report (Art. 21(3))*

WO 2011/043176 A1

(54) **Title**: OXIDE SEMICONDUCTOR LAYER AND SEMICONDUCTOR DEVICE

FIG. 1A



(57) **Abstract**: An object is to provide an oxide semiconductor layer having a novel structure which is preferably used for a semiconductor device. Alternatively, another object is to provide a semiconductor device using an oxide semiconductor layer having the novel structure. An oxide semiconductor layer includes an amorphous region which is mainly amorphous and a crystal region containing crystal grains of $In_2Ga_2ZnO_7$ in a vicinity of a surface, in which the crystal grains are oriented so that the c-axis is almost vertical with respect to the surface. Alternatively, a semiconductor device uses such an oxide semiconductor layer.