

(2006065890)

22.09.06

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 November 2005 (03.11.2005)

PCT

(10) International Publication Number
WO 2005/104214 A3

(51) International Patent Classification:

C09K 13/00 (2006.01) *H01L 21/00* (2006.01)
C09K 13/04 (2006.01) *B08B 6/00* (2006.01)
C09K 13/08 (2006.01) *C11D 7/32* (2006.01)
B44C 1/22 (2006.01)

(21) International Application Number:

PCT/US2005/007947

(22) International Filing Date: 14 March 2005 (14.03.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/807,858 24 March 2004 (24.03.2004) US

(71) Applicant (for all designated States except US): **ADVANCED TECHNOLOGY MATERIALS, INC.**
[US/US]; 7 Commerce Drive, Danbury, CT 06810-4169 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KORZENSKI, Michael, B.** [US/US]; 110 Woodcrest Lane, Danbury, CT 06810 (US). **BAUM, Thomas, H.** [US/US]; 2 Handol Lane, New Fairfield, CT 06812 (US).

(74) Agents: **FUIERER, Anne** et al.; Moore and Van Allen PLLC, 430 Davis Drive, Suite 500, P.O. Box 13706, Research Triangle Park, NC 27709 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

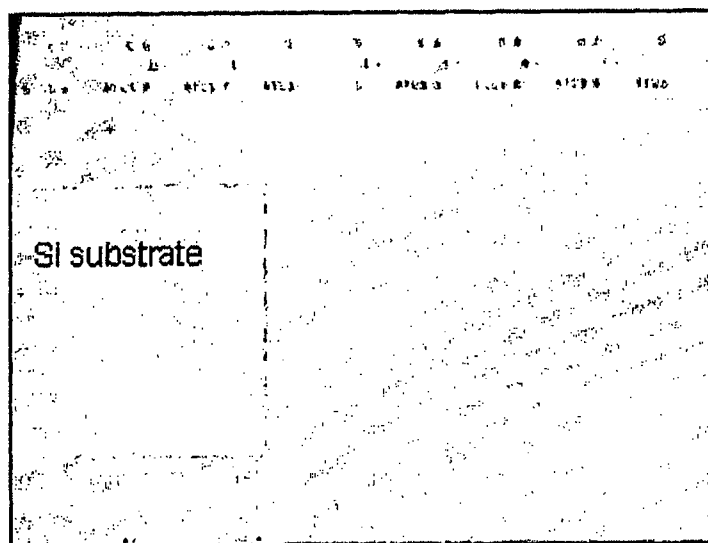
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

10 August 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITION USEFUL FOR REMOVAL OF BOTTOM ANTI-REFLECTION COATINGS FROM PATTERNED ION-IMPLANTED PHOTORESIST WAFERS



(57) Abstract: A method and composition for removing a bottom anti-reflection coating (BARC) layer from semiconductor substrates having such BARC layers is described. The removal composition includes a supercritical fluid, a co-solvent, an etchant and a surfactant. Such removal compositions overcome the intrinsic deficiency of SCCO₂ as a removal reagent, viz., the non-polar character of SCCO₂ and its associated inability to solubilize species such as inorganic salts and polar organic compounds that must be removed from the semiconductor substrate.



162162



ACTION

WO 2005/104214 A3