

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 July 2006 (13.07.2006)

PCT

(10) International Publication Number
WO 2006/073924 A3

(51) International Patent Classification:

B24B 1/00 (2006.01) **B24D 11/00** (2006.01)
B24B 21/18 (2006.01) **B24D 17/00** (2006.01)
B24B 53/00 (2006.01) **B24D 18/00** (2006.01)
B24B 53/12 (2006.01) **C09K 3/14** (2006.01)
B24D 3/00 (2006.01)

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, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, 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.

(21) International Application Number:

PCT/US2005/047024

(22) International Filing Date:

23 December 2005 (23.12.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(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, LV, 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).

(30) Priority Data:

11/026,544 30 December 2004 (30.12.2004) US

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

(71) Applicant and

(72) Inventor: **SUNG, Chien-min** [US/—]; No. 4, Lane 32, Chung-cheng Road, Tansui, Taipei County 251 (TW).

(74) Agents: **OSBORNE, David, W.** et al.; THORPE NORTH & WESTERN LLP, Po Box 1219, Sandy, UT 84091-1219 (US).

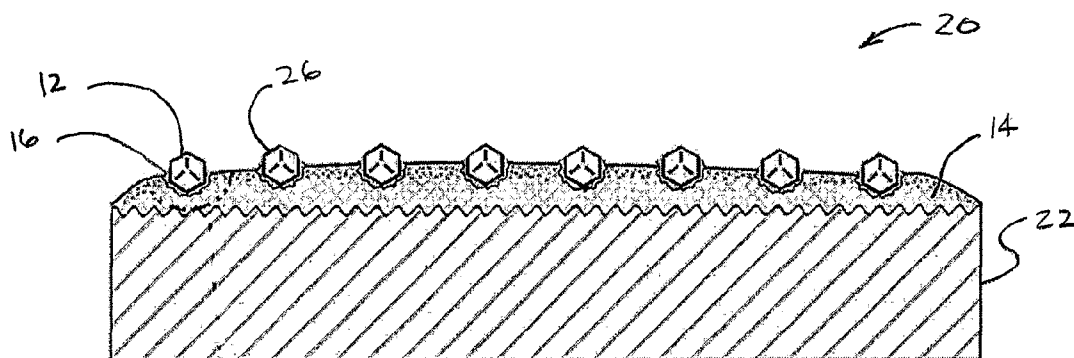
(88) Date of publication of the international search report:

28 September 2006

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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: CHEMICAL MECHANICAL POLISHING PAD DRESSER



(57) Abstract: CMP pad dressers and their methods of manufacture are disclosed. One aspect of the present invention provides a CMP pad dresser (20) having improved superabrasive grit retention in a resin layer. The CMP pad includes a resin layer (14), superabrasive grit (12) held in the resin layer (14) such that an exposed portion (26) of each superabrasive grit (12) protrudes from the resin layer (14), and a metal coating layer (16) disposed between each superabrasive grit (12) and the resin layer (14), where the exposed portions (26) are substantially free of the metal coating layer (16). The metal coating layer (16) acts to increase the retention of the superabrasive grit (12) in the resin layer (14) as compared to superabrasive grit (12) absent the metal coating layer (16).