

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 January 2007 (04.01.2007)

PCT

(10) International Publication Number
WO 2007/001700 A3

(51) International Patent Classification:

B24B 37/04 (2006.01) **B24B 1/00** (2006.01)
B24D 13/14 (2006.01)

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, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2006/020194

(22) International Filing Date: 24 May 2006 (24.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

11/158,185 21 June 2005 (21.06.2005) US

(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).

(71) Applicant: **CABOT MICROELECTRONICS CORPORATION** [US/US]; 870 North Commons Drive, Aurora, IL 60504 (US).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

(72) Inventors: **MYERS, Ronald**; c/o Legal Department, Cabot Microelectronics Corporation, 870 North Commons Drive, Aurora, IL 60504 (US). **PRASAD, Abaneshwar**; c/o Legal Department, Cabot Microelectronics Corporation, 870 North Commons Drive, Aurora, IL 60504 (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*

(74) Agents: **WESEMAN, Steven** et al.; Legal Department, Cabot Microelectronics Corporation, 870 North Commons Drive, Aurora, IL 60504 (US).

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

22 February 2007

(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,

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: POLISHING PAD COMPRISING MAGNETICALLY SENSITIVE PARTICLES AND METHOD FOR THE USE THEREOF

(57) Abstract: The invention provides polishing pads comprising a deformable polishing pad body and magnetically sensitive particles dispersed therein, wherein one or more properties of the polishing pad are altered when in the presence of an applied magnetic field. The invention further provides a polishing system and a method for polishing a substrate involving such a polishing pad.



WO 2007/001700 A3