

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2007 (26.04.2007)

PCT

(10) International Publication Number
WO 2007/047996 A3

(51) International Patent Classification:
B24B 9/00 (2006.01)

(21) International Application Number:
PCT/US2006/041166

(22) International Filing Date: 19 October 2006 (19.10.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/728,126 19 October 2005 (19.10.2005) US
11/582,711 18 October 2006 (18.10.2006) US

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(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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).

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:
4 October 2007

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: APERTURED CONDITIONING BRUSH FOR CHEMICAL MECHANICAL PLANARIZATION SYSTEMS

(57) Abstract: An apparatus for conditioning the polishing pad of a chemical mechanical planarization (CMP) system including an apertured conditioning disk formed to support a plurality of brush bristles in any desired configuration. The bristles are utilized to lift out debris and contaminants that have been lodged within the deep pores of polishing pads, particularly "soft" polishing pads (or polishing felts). The apertures in the conditioning disk are used to allow for the efficient evacuation of the effluent created during the conditioning process. The apertures may also be used to introduce conditioning fluids as the bristles are brushing the surface to assist in the conditioning process. The utilization of the apertures to evacuate the effluent (via an attached vacuum source) overcomes problems associated with the prior art by immediately removing the dislodged material from the pad surface before it has an opportunity to be re-incorporated into the polishing pad.



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