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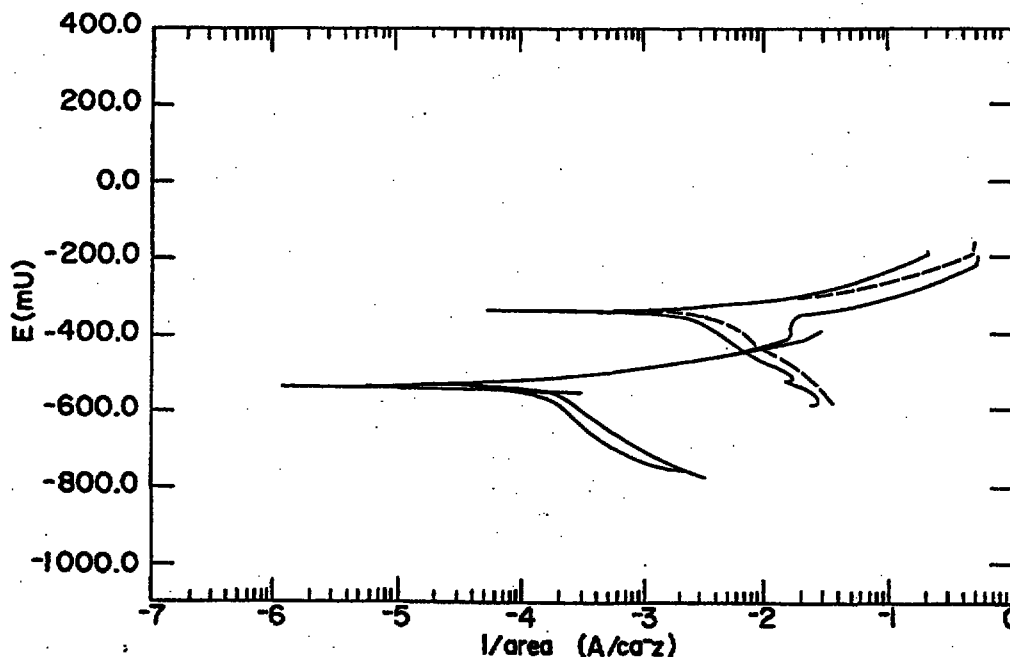


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(21) International Application Number: PCT/US97/22285 (22) International Filing Date: 5 December 1997 (05.12.97) (30) Priority Data: ① 08/763,705 ✓ 9 December 1996 (09.12.96) ✓ US ✓ ② 08/891,649 ✓ 11 July 1997 (11.07.97) ✓ US ✓ ③ 08/944,036 ✓ 29 September 1997 (29.09.97) ✓ US ✓ (71) Applicant: CABOT CORPORATION [US/US]; 75 State Street, Boston, MA 02109-1806 (US). (72) Inventors: ① KAUFMAN, Ylasta, Brusic, 721 Easton Avenue, Geneva, IL 60134 (US); ② KISTLER, Rodney, C.; 42W597 Steeple Chase, St. Charles, IL 60175 (US); ③ WANG, Shumin; 1006 Dakota Circle, Naperville, IL 60563 (US). (74) Agent: LANDO, Michelle, B.; Cabot Corporation, 157 Concord Road, P.O. Box 7001, Billerica, MA 01821-7001 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, 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 the receipt of amendments. 3 PDS 1 appl ⁿ (PF24 assignment) 3 Invs. IPCs: C09K 13/04 C09K 13/06	

(54) Title: CHEMICAL MECHANICAL POLISHING COPPER SUBSTRATES ✓

C23F 1/02
B44C 1/22



(57) Abstract

A chemical mechanical polishing slurry comprising a film forming agent, an oxidizer such as urea hydrogen peroxide, a complexing agent such as ammonium oxalate or tartaric acid, an abrasive, and an optional surfactant. Also disclosed is a method for using the chemical mechanical polishing slurry composition to remove copper alloy, titanium, and titanium nitride containing layers from a substrate.