

Title (en)

A CORROSION RETARDING POLISHING SLURRY FOR THE CHEMICAL MECHANICAL POLISHING OF COPPER SURFACES

Title (de)

KORROSIONSVERRÖGERNDE POLIERSUSPENSION ZUR CHEMISCH-MECHANISCHEN POLITUR VON KUPFERFLÄCHEN

Title (fr)

PATE A POLIR RETARDANT LA CORROSION DESTINEE A ETRE UTILISEE POUR LE POLISSAGE MECANO-CHIMIQUE DE SURFACES DE CUIVRE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2004037937A1] The present invention provides a slurry for chemical mechanical polishing (CMP) a metal surface of a semiconductor substrate with a polyurethane-free thermoplastic foam polishing body. The slurry includes an abrasive particle stabilizer and an acid buffer that maintains the slurry at a pH between about 2.5 and about 4.0 during polishing of a metal surface on a semiconductor substrate. In yet another embodiment, the present invention provides a CMP polishing system. The polishing system comprises a slurry that maintains a pH between about 1 and about 6 during polishing of a metal surface on a semiconductor substrate. The System further includes a polishing pad that includes a polishing body having a polyurethane-free thermoplastic foam substrate that cooperates with the slurry to remove portions of the metal surface during said polishing.

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