

Title (en)

Method and apparatus for measuring a pad profile and closed loop control of a pad conditioning process

Title (de)

Verfahren und Vorrichtung zum Messen eines Polierkissenprofils und Steuerung mit geschlossenem Regelkreis eines Polierkissen Aufbereitungsverfahren

Title (fr)

Procédé et dispositif pour mesurer le profil d'un tampon de polissage et commande en boucle fermée du processus de dressage d'un tampon

Publication

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Application

EP 00305242 A 20000621

Priority

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Abstract (en)

A method and apparatus for enhancing the process performance over the life of a polishing pad (120) in a chemical-mechanical polishing apparatus (80) employs closed loop control of polishing pad wear. A contactless displacement sensor (175), such as a laser displacement sensor, provides feedback that is used to generate a pad profile of the polishing pad. Conditioning apparatus (130) is then controlled in response to the feedback from the laser displacement sensor in a closed loop control to modify the conditioning process and control the pad wear uniformity. <IMAGE>
<IMAGE>

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Cited by

EP1270148A1; EP1516700A3; US7066786B2; US7101138B2; WO2004012249A1; WO2004113021A1; WO03000462A1; US7163435B2; US8412370B2; US7008296B2; US7500901B2; US7089081B2; US7070479B2; US10994389B2; US11731238B2; US7165927B2; US9620397B2; US9881823B2; US10141212B2; US10147627B2; US10381251B2; US9138860B2; US11524382B2; US11780045B2; US7160173B2; US11658078B2; US11791224B2; US12057354B2; US10957569B2; US11780047B2; US11794302B2

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