

Title (en)
APPARATUS AND METHOD FOR CHEMICAL MECHANICAL POLISHING OF SUBSTRATES

Title (de)
VERFAHREN UND VORRICHTUNG ZUM CHEMISCH-MECHANISCHEN POLIEREN VON SUBSTRATEN

Title (fr)
DISPOSITIF ET PROCEDE DE POLISSAGE MECANO-CHIMIQUE DE SUBSTRATS

Publication
EP 1307320 A4 20041201 (EN)

Application
EP 01962336 A 20010731

Priority

- US 0141513 W 20010731
- US 62856300 A 20000731
- US 25901600 P 20001229

Abstract (en)
[origin: WO0209906A1] A chemical mechanical polishing system having a wafer carrier assembly is provided. The wafer carrier assembly includes a wafer carrier support frame, (52) a wafer carrier head housing (56) rotatably mounted on the wafer carrier support frame, with a wafer carrier base including a bladder bellows (98) operatively connecting the wafer carrier base to the wafer carrier head housing. A retaining ring (96) is also provided, connected to a retaining ring bearing (142) that allows relative axial motion while constraining relative radial motion between the retaining ring and wafer carrier head housing, and a retaining ring bellows (144) to urge the retaining ring against a polishing member. A chamber formed by the bladder bellows, wafer carrier base and wafer carrier housing may be pressurized to load the wafer carrier base, and wafer, against a polishing member, independent of any frictional loads on the retaining ring.

IPC 1-7
B24B 1/00; **B24B 5/00**; **B24B 37/04**

IPC 8 full level
B24B 37/00 (2006.01); **B24B 37/04** (2006.01); **B24B 37/32** (2012.01); **B24B 41/06** (2006.01); **H01L 21/304** (2006.01)

CPC (source: EP KR US)
B24B 37/32 (2013.01 - EP KR US); **B24B 41/02** (2013.01 - KR)

Citation (search report)

- [XY] US 6024630 A 20000215 - SHENDON NORMAN [US], et al
- [X] US 6068549 A 20000530 - JACKSON PAUL [US]
- [Y] US 5980361 A 19991109 - MUELLER PAUL [AT], et al
- [A] US 5759918 A 19980602 - HOSHIZAKI JON A [US], et al
- See references of WO 0209906A1

Designated contracting state (EPC)
AT BE CH CY DE FR GB IT LI NL

DOCDB simple family (publication)
WO 0209906 A1 20020207; AU 8352901 A 20020213; CN 1460042 A 20031203; DE 60127269 D1 20070426; EP 1307320 A1 20030507; EP 1307320 A4 20041201; EP 1307320 B1 20070314; JP 2004505456 A 20040219; KR 20030029119 A 20030411; TW 577785 B 20040301

DOCDB simple family (application)
US 0141513 W 20010731; AU 8352901 A 20010731; CN 01815145 A 20010731; DE 60127269 T 20010731; EP 01962336 A 20010731; JP 2002515445 A 20010731; KR 20037001400 A 20030130; TW 90118623 A 20010731