

Title (en)

HIGH THROUGHPUT POLISHING MODULES AND MODULAR POLISHING SYSTEMS

Title (de)

POLIERMODULE MIT HOHEM DURCHSATZ UND MODULARE POLIERSYSTEME

Title (fr)

MODULES DE POLISSAGE À HAUT RENDEMENT ET SYSTÈMES DE POLISSAGE MODULAIRES

Publication

EP 4377047 A1 20240605 (EN)

Application

EP 21952070 A 20210728

Priority

US 2021043554 W 20210728

Abstract (en)

[origin: WO2023009116A1] Embodiments herein include high throughput density chemical mechanical polishing (CMP) modules and customizable modular CMP systems formed thereof. In one embodiment, a polishing module features a carrier support module, a carrier loading station, and a polishing station. The carrier support module features a carrier platform and one or more carrier assemblies. The one or more carrier assemblies each comprise a corresponding carrier head suspended from the carrier platform. The carrier loading station is used to transfer substrates to and from the carrier heads. The polishing station comprises a polishing platen. The carrier support module, the substrate loading station, and the polishing station comprise a one-to-one-to-one relationship within each of the polishing modules. The carrier support module is positioned to move the one or more carrier assemblies between a substrate polishing position disposed above the polishing platen and a substrate transfer position disposed above the substrate loading station.

IPC 8 full level

B24B 53/017 (2012.01); **B24B 37/30** (2012.01); **H01L 21/67** (2006.01)

CPC (source: EP)

H01L 21/67028 (2013.01); **H01L 21/67046** (2013.01); **H01L 21/67219** (2013.01); **H01L 21/6838** (2013.01); **H01L 21/68742** (2013.01);
H01L 21/68785 (2013.01); **B24B 37/30** (2013.01); **B24B 53/017** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2023009116 A1 20230202; EP 4377047 A1 20240605

DOCDB simple family (application)

US 2021043554 W 20210728; EP 21952070 A 20210728