

Title (en)
APPARATUS AND METHOD FOR TREATING A SUBSTRATE ELECTROCHEMICALLY WHILE REDUCING METAL CORROSION

Title (de)
VORRICHTUNG UND VERFAHREN ZUM ELEKTROCHEMISCHEN BEHANDELN EINES SUBSTRATS BEI GLEICHZEITIGER VERRINGERUNG DER METALLKORROSION

Title (fr)
APPAREIL ET PROCEDE DE TRAITEMENT ELECTROCHIMIQUE D'UN SUBSTRAT REDUISANT LA CORROSION DU METAL

Publication
EP 1540044 A2 20050615 (EN)

Application
EP 03762324 A 20030624

Priority

- DE 10228998 A 20020628
- US 0320949 W 20030624
- US 30490302 A 20021126

Abstract (en)
[origin: WO2004003663A2] A process tool (200) for electrochemically treating a substrate (201) is configured to reduce the oxygen concentration and/or the sulfur dioxide concentration in the vicinity of the substrate so that corrosion of copper may be reduced. In one embodiment, a substantially inert atmosphere is established within the process tool (200) including a plating reactor by providing a continuous inert gas flow and/or by providing a cover (201) that reduces a gas exchange with the ambient atmosphere. The substantially inert gas atmosphere may also be maintained during further process steps involved in electrochemically treating the substrate including required transportation steps between the individual process steps.

IPC 1-7
C25D 7/12

IPC 8 full level
C23C 18/16 (2006.01); **C25D 5/00** (2006.01); **C25D 7/12** (2006.01); **C25D 17/00** (2006.01); **H01L 21/00** (2006.01); **H01L 21/288** (2006.01)

CPC (source: EP)
C25D 5/003 (2013.01); **C25D 17/001** (2013.01); **C25D 17/008** (2013.01); **C25D 17/02** (2013.01); **H01L 21/2885** (2013.01);
H01L 21/67155 (2013.01)

Citation (search report)
See references of WO 2004003663A2

Citation (examination)
WO 0247139 A2 20020613 - EBARA CORP [JP], et al

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
WO 2004003663 A2 20040108; **WO 2004003663 A3 20050428**; AU 2003248809 A1 20040119; AU 2003248809 A8 20040119;
EP 1540044 A2 20050615; JP 2006507405 A 20060302; TW 200401362 A 20040116; TW I286355 B 20070901

DOCDB simple family (application)
US 0320949 W 20030624; AU 2003248809 A 20030624; EP 03762324 A 20030624; JP 2004518227 A 20030624; TW 92117062 A 20030624