

25/11/02
2002071835

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2001 (06.12.2001)

PCT

(10) International Publication Number
WO 01/92607 A1

(51) International Patent Classification⁷: **C25D 21/18**

(21) International Application Number: PCT/US00/23807

(22) International Filing Date: 30 August 2000 (30.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/578,388 25 May 2000 (25.05.2000) US

(71) Applicant: **MILLIPORE CORPORATION** [US/US];
80 Ashby Road, Bedford, MA 01730 (US).

(72) Inventors: **BELONGIA, Brett, Matthew**; 380 Boxford
Street, North Andover, MA 01845 (US). **LIN, Zhen, Wu**;

8F, No. 9, Lane 81, ChungShan N. Road, Sec. 7, Taipei
(CN). **PILLION, John, E.**; 24 Westview Road, Brookline,
NH 03033 (US). **SHYU, Jieh-Hwa**; 6 Starr Avenue East,
Andover, MA 01810 (US).

(81) Designated States (*national*): JP, KR, SG.

(84) Designated States (*regional*): European patent (AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



162162



ACTION

WO 01/92607 A1

(54) Title: REGENERATION OF PLATING BATHS

(57) Abstract: The present invention provides a system and method for selectively removing one or more organic and also preferably one or more inorganic contaminants from plating baths. More particularly, the invented method relates to the use of a source of energy in combination with chemical oxidants, alone or in conjunction with a catalyst to oxidize organic contaminants in the plating bath to a level such that the electroplating bath can be recovered and reused after appropriate chemical adjustment. The oxidative treatment method may be a continuous process or a batch process that is performed in a single pass and the endpoint of the oxidative process detected by a sensor. Residual organics, if desired, and chloride ions in the bath are removed from the solution by a chemisorption or physisorption treatment. Inorganic contaminants are removed from the electroplating bath by selective ion exchange resins or electrodialysis, while particulate and suspended colloidal particles are removed by filtration before the treated plating bath is recycled.