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(71) Applicant (for all designated States except US): APPLIED MATERIALS, INC. [US/US]; P.O. Box 450A, Santa Clara, California 95052 (US).

(72) Inventors; and
(75) Inventors/Applicants (for US only): MEL, Fang [CN/US]; 975 Laguna Circle, Foster City, California 94404 (US). TANNER, David [US/US]; 184 Cleaves Ave, San Jose, California 95126 (US).

(74) Agents: MCMASTER, Mark T. et al.; TOWNSEND AND TOWNSEND AND CREW, Two Embarcadero Center, 8th Floor, San Francisco, California 94111 (US).

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[Continued on next page]

(54) Title: PROCESS TO REMOVE METAL CONTAMINATION ON TCO

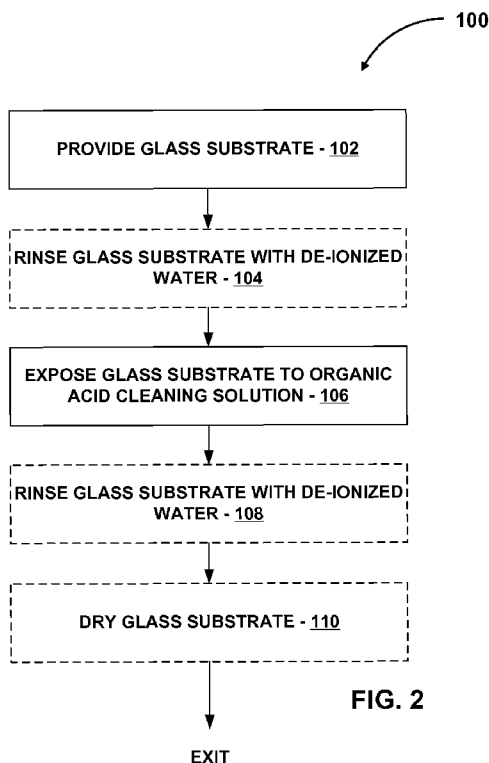


FIG. 2

(57) Abstract: The present disclosure relates to methods and related cleaning solutions (116) for cleaning a glass substrate (10, 112), such as for removing metal ion contaminants from a glass substrate (10, 112) having a transparent conductive oxide layer (12). One method includes: providing a glass substrate (10, 112) having a transparent conductive oxide (TCO) layer (12); and exposing the glass substrate (10, 112) to a cleaning solution (116) that includes 0.5% to 5% organic acid, wherein the organic acid used includes citric acid, acetic acid, or oxalic acid.



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A. CLASSIFICATION OF SUBJECT MATTER***H01L 31/042(2006.01)i, H01L 31/18(2006.01)i***

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: oragnic, acid, cleaning

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	KR 10-2006-0127098 A (MITSUBISHI CHEMICAL CORPORATION) 11 December 2006 See abstract, pages 1-10, tables 1-6 and claims 1-15.	1-13 14-15
A	US 2002-0165105 A1 (DONALD L. YATES et al.) 07 November 2002 See abstract and claims 1,10.	1-15
A	US 2009-0020149 A1 (WOODS LAWRENCE M. et al.) 22 January 2009 See abstract and figure 3.	1-15

 Further documents are listed in the continuation of Box C. See patent family annex.

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Authorized officer

KIM Min Soo

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Information on patent family members

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