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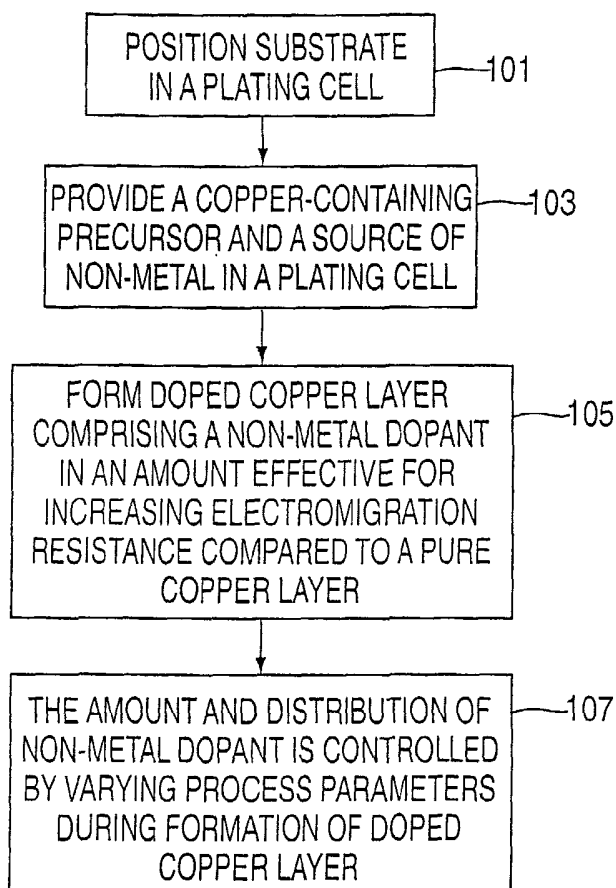
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- (71) Applicant: **APPLIED MATERIALS, INC.** [US/US]; 3050 Bowers Avenue, Santa Clara, CA 95054 (US).
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD OF FORMING COPPER INTERCONNECTS



(57) Abstract: A method of forming a copper layer with increased electromigration resistance. A doped copper layer is formed by controlling the incorporation of a non-metallic dopant during copper electroplating.

# INTERNATIONAL SEARCH REPORT

Int. ... onal Application No

PCT/US 02/07845

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L21/288 H01L21/768

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

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

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

EPO-Internal, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 27585 A (DELIGIANI HARIKLIA ;DUKOVIC JOHN OWEN (US); HU CHAO KUN (US); IBM) 25 June 1998 (1998-06-25)	1-8, 15, 17, 32-36
Y	page 10, line 19 -page 11, line 4	11-14, 16, 26-31
A	page 13, line 9 -page 18, line 1  page 20, line 25 -page 21, line 16; claims 1-3, 5, 7, 10, 15-18, 24  ---  -/--	9, 10, 19-23

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 050 902 A (MOTOROLA INC) 8 November 2000 (2000-11-08)	1-4, 17, 18, 24, 25, 32, 33, 35, 36
Y	column 3, line 24 -column 4, line 58  column 6, line 9 - line 22 column 7, line 43 -column 19, line 15; figures 1, 4-12	11-14, 16, 26-31
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A	abstract  -& US 6 268 291 B1 (TSAI ROGER YEN-LUEN ET AL) 31 July 2001 (2001-07-31) column 7, line 65 -column 12, line 52; figures 3EF, 8; table 1  ----	5-9, 14, 15, 24
X	US 6 063 506 A (DELIGIANNI HARIKLIA ET AL) 16 May 2000 (2000-05-16)	1-3, 32-36
A	column 4, line 46 -column 6, line 47 column 7, line 49 -column 8, line 56; figure 1  -----	4, 17, 24

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Information on patent family members

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