

Title (en)
METHOD FOR FORMING FILM

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER SCHICHT

Title (fr)
PROCEDE DE FORMATION DE FILM

Publication
EP 1071123 A8 20010502 (EN)

Application
EP 99909290 A 19990323

Priority
• JP 9901429 W 19990323
• JP 12266198 A 19980327

Abstract (en)
[origin: EP1071123A1] In a film-forming process of depositing gaseous molecules each composed of plural atoms onto a substrate or reacting the gaseous molecules with the constituting elements of the substrate to form a compound film onto the substrate, the plasma, having the excited inert gaseous molecules having higher quasi-stable level energies than the ones requiring to dissociate the gaseous molecules into their atomicity elements and the gaseous molecules, is generated and then, the gaseous molecules are dissociated into their atomicity elements before the depositing into the substrate. As a result, the dissociation of the gaseous molecules onto the substrate is not required, leading to the lowering of the film-forming process. <IMAGE>

IPC 1-7
H01L 21/316; **H01L 21/318**

IPC 8 full level
H01L 21/31 (2006.01); **B01J 19/08** (2006.01); **C23C 16/24** (2006.01); **C23C 16/40** (2006.01); **C23C 16/452** (2006.01); **C23C 16/50** (2006.01); **C23C 16/511** (2006.01); **C23C 26/00** (2006.01); **H01L 21/314** (2006.01); **H01L 21/316** (2006.01); **H01L 21/318** (2006.01)

CPC (source: EP KR US)
C23C 16/401 (2013.01 - EP US); **C23C 16/402** (2013.01 - EP US); **C23C 16/409** (2013.01 - EP US); **C23C 16/452** (2013.01 - EP US); **H01L 21/02131** (2013.01 - EP KR US); **H01L 21/0214** (2013.01 - KR US); **H01L 21/02164** (2013.01 - KR US); **H01L 21/0217** (2013.01 - EP KR US); **H01L 21/02197** (2013.01 - EP KR US); **H01L 21/02238** (2013.01 - KR US); **H01L 21/02247** (2013.01 - EP KR US); **H01L 21/02249** (2013.01 - EP KR US); **H01L 21/02252** (2013.01 - EP KR US); **H01L 21/02274** (2013.01 - KR US); **H01L 21/3145** (2013.01 - US); **H01L 21/316** (2013.01 - US); **H01L 21/31612** (2013.01 - US); **H01L 21/3185** (2013.01 - US); **H01L 21/0214** (2013.01 - EP); **H01L 21/02164** (2013.01 - EP); **H01L 21/02238** (2013.01 - EP); **H01L 21/02274** (2013.01 - EP); **H01L 21/0228** (2013.01 - EP)

Cited by
EP1453083A4; TWI423461B; WO0169665A1; US7439121B2; US7718484B2; EP1347507A4

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1071123 A1 20010124; **EP 1071123 A4 20041124**; **EP 1071123 A8 20010502**; **EP 1071123 B1 20070103**; AU 2854699 A 19991018; AU 748409 B2 20020606; CA 2326052 A1 19991007; CN 1146025 C 20040414; CN 1299517 A 20010613; DE 69934680 D1 20070215; JP H11279773 A 19991012; KR 100441836 B1 20040727; KR 20010042227 A 20010525; US 2003003243 A1 20030102; US 6746726 B2 20040608; WO 9950899 A1 19991007

DOCDB simple family (application)
EP 99909290 A 19990323; AU 2854699 A 19990323; CA 2326052 A 19990323; CN 99805632 A 19990323; DE 69934680 T 19990323; JP 12266198 A 19980327; JP 9901429 W 19990323; KR 20007010752 A 20000927; US 64698800 A 20001116