13 JUN 2002

20020035228

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 June 2001 (28.06.2001)

PCT

(10) International Publication Number
WO 01/47009 A3

(51) International Patent Classification[7]: H01L 21/66

(21) International Application Number: PCT/US00/34655

(22) International Filing Date:
19 December 2000 (19.12.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/468,742 21 December 1999 (21.12.1999) US

(71) Applicant *(for all designated States except US)*: **LAM RESEARCH CORPORATION** [US/US]; 4650 Cushing Parkway, Fremont, CA 94538-6516 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **NI, Tuqiang** [CN/US]; 5415 Ontario Common, Fremont, CA 94555 (US). **COLLISON, Wenli** [CN/US]; 43257 Livermore Common, Fremont, CA 94539 (US).

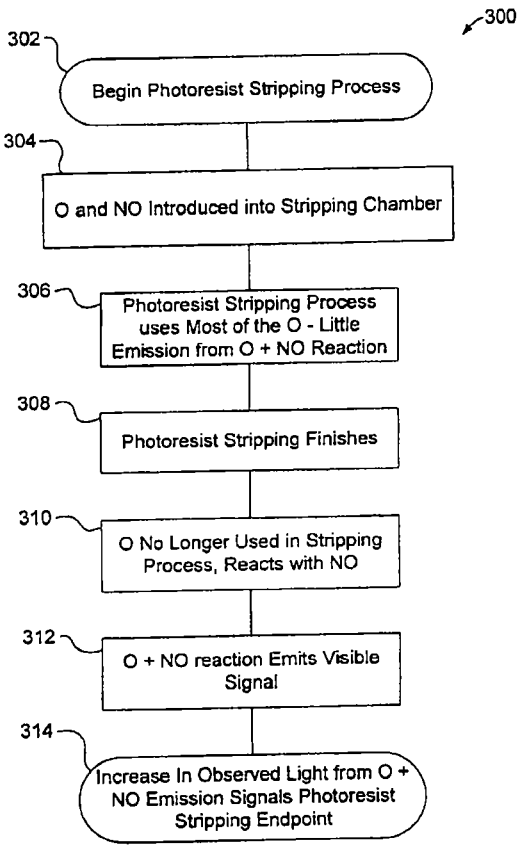
(74) Agent: **COLEMAN, Brian, R.**; Hickman Coleman & Hughes, LLP, P.O. Box 52037, Palo Alto, CA 94303 (US).

(81) Designated States *(national)*: AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR DETECTING THE ENDPOINT OF A PHOTORESIST STRIPPING PROCESS



(57) Abstract: A method and apparatus for detecting the endpoint of a photoresist stripping process. A wafer to be stripped of photoresist is disposed inside a stripping chamber. After substantially all the photoresist is stripped from the wafer, the rate of a reaction of O and NO to form NO_2 increases, which increases the intensity of emitted light. A light detecting apparatus detects this increase in light intensity, which signals the endpoint of the photoresist stripping process.

162162

ACTION

WO 01/47009 A3

Published:
— *with international search report*

(88) Date of publication of the international search report:
31 January 2002

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.