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(71) Applicants *(for all designated States except US)*: **TOKYO ELECTRON LIMITED** [JP/JP]; Akasaka Biz Tower, 3-1 Akasaka 5-chome, Minatoku, 107-6325 (JP). **KLA-TENCOR CORPORATION** [US/US]; One Technology Drive, Milpitas, CA 95035 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **DZIURA, Thaddeus, G.** [US/US]; 3664 Tunis Avenue, San Jose, CA 95132 (US). **CHUANG, Yung-Ho** [US/US]; 10734 South Stelling Road, Cupertino, CA 95014 (US). **TSAI, Binming, Benjamin** [US/US]; 19801 Scotland Drive, Saratoga, CA 95070 (US). **LIN, Xuefeng** [CN/US]; 1015 Avondale Street, San Jose, CA 95129 (US). **HENCH, John, J.** [US/US]; 6213 Via Saronno, San Jose, CA 95120 (US).

(74) Agents: **VINCENT, Lester, J.** et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 1279 Oakmead Parkway, Sunnyvale, CA 94085-4040 (US).

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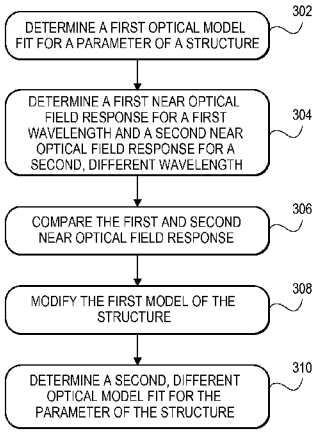
[Continued on next page]

(54) Title: METHOD OF OPTIMIZING AN OPTICAL PARAMETRIC MODEL FOR STRUCTURAL ANALYSIS USING OPTICAL CRITICAL DIMENSION (OCD) METROLOGY

FIG. 3 FLOWCHART 300



(57) Abstract: Optimization of optical parametric models for structural analysis using optical critical dimension metrology is described. A method includes determining a first optical model fit for a parameter of a structure. The first optical model fit is based on a domain of quantities for a first model of the structure. A first near optical field response is determined for a first quantity of the domain of quantities and a second near optical field response is determined for a second, different quantity of the domain of quantities. The first and second near optical field responses are compared to locate a common region of high optical field intensity for the parameter of the structure. The first model of the structure is modified to provide a second, different model of the structure. A second, different optical model fit is determined for the parameter of the structure based on the second model of the structure.

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06T 7/00; G06F 19/00; G01R 23/00; B05D 1/00; G01B 11/06; G01B 11/14; G01B 11/04

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: optical, parameteric model, wavelength, polarization

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7355728 B2 (SHIFANG LI et al.) 08 April 2008 See abstract; column 7, line 57, column 8, line 6, column 10, lines 24-37, co	1,4,8,15,18,22
A	lumn 12, lines 28-59 and figures 6,9.	2,3,5-7,9-14,16,17 ,19-21,23-30
A	US 2004-0265477 A1 (NATALIYA NABATOVA-GABAIN et al.) 30 December 2004 See abstract; paragraphs [0079],[0080] and figures 1,4.	1-30
A	US 2004-0122599 A1 (JON OPSAL et al.) 24 June 2004 See abstract; paragraphs [0043]-[0054] and figures 4-7.	1-30
A	EP 1037012 A1 (NOVA MEASURING INSTRUMENTS LIMITED) 20 September 2000 See abstract; paragraphs [0050]-[0052] and figure 5.	1-30

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

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Date of the actual completion of the international search	Date of mailing of the international search report
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Korean Intellectual Property Office
189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan City, 302-701, Republic of Korea
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Authorized officer
Jin Min Sook
Telephone No. 82-42-481-5710

INTERNATIONAL SEARCH REPORT

Information on patent family members

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