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[Continued on next page]

(54) Title: MODELING EUV LITHOGRAPHY SHADOWING EFFECT

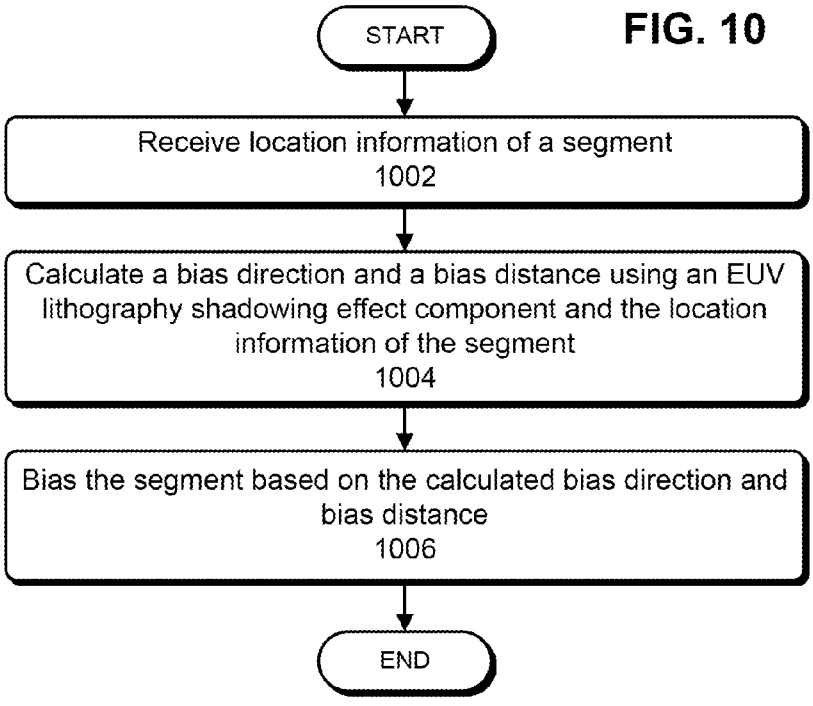

FIG. 10

(57) Abstract: Systems and techniques for modeling the EUV lithography shadowing effect are described. Some embodiments described herein provide a process model that includes an EUV lithography shadowing effect component. Polygon edges in a layout can be dissected into a set of segments. Next, the EUV lithography shadowing effect component can be used to bias each segment. The modified layout having the biased segments can then be used as input for other components in the process model.

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A. CLASSIFICATION OF SUBJECT MATTER

G06F 17/50(2006.01)i, G03F 7/20(2006.01)i

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)
G06F 17/50; H01L 21/302; G03B 27/42; G03B 27/68; G03F 1/14; H01L 21/461

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: EUV, lithography, shadowing effect, correction, direction, distance, bias and segment.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2008-0229273 A1 (LORUSSO GIAN FRANCESCO et al.) 18 September 2008 See abstract; paragraphs [0063],[0087] and [0099]; claim 1; and figure 14.	1,5-6,8,12-13,15 2-4,7,9-11,14 ,16-19
A	US 2008-0102647 A1 (CHEN YIJIAN) 01 May 2008 See abstract; paragraph [0010]; and claim 1.	1-19
A	US 2009-0097001 A1 (TROGISCH SVEN et al.) 16 April 2009 See abstract; paragraphs [0068]-[0070]; claim 5; and figure 7.	1-19
A	EUV pattern shift compensation strategies (T.Schmoeller, et al.) 20 March 20 08, 2008 SPIE.	1-19

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

* Special categories of cited documents:
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0229273 A1	18.09.2008	AT 537484 T	15.12.2011
		EP 1962138 A1	27.08.2008
		JP 2008-219004 A	18.09.2008
		KR 10-2008-0078608 A	27.08.2008
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