US009411225B2

(12) **United States Patent**
Ohashi et al.

(10) **Patent No.: US 9,411,225 B2**
(45) **Date of Patent: Aug. 9, 2016**

(54) **PHOTO ACID GENERATOR, CHEMICALLY AMPLIFIED RESIST COMPOSITION, AND PATTERNING PROCESS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/728,620**

(22) Filed: **Jun. 2, 2015**

(65) **Prior Publication Data**

US 2016/0004155 A1 Jan. 7, 2016

(30) **Foreign Application Priority Data**

Jul. 4, 2014 (JP) 2014-139019

(51) **Int. Cl.**

G03F 7/004	(2006.01)
G03F 7/039	(2006.01)
G03F 7/20	(2006.01)
G03F 7/30	(2006.01)
G03F 7/38	(2006.01)
G03F 7/09	(2006.01)
G03F 7/11	(2006.01)
G03F 1/20	(2012.01)

(52) **U.S. Cl.**

CPC ***G03F 7/0045*** (2013.01); ***G03F 1/20*** (2013.01); ***G03F 7/0392*** (2013.01); ***G03F 7/0397*** (2013.01); ***G03F 7/09*** (2013.01); ***G03F 7/11*** (2013.01); ***G03F 7/2041*** (2013.01); ***G03F 7/2053*** (2013.01); ***G03F 7/2059*** (2013.01); ***G03F 7/30*** (2013.01); ***G03F 7/38*** (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

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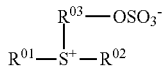
(57) **ABSTRACT**

A photo acid generator represented (**1**a),



(1a)

wherein R^{01} and R^{02} each independently represent a linear monovalent hydrocarbon group having 1 to 20 carbon atoms or a branched or cyclic monovalent hydrocarbon group having 3 to 20 carbon atoms which may be substituted with or interposed by a heteroatom; R^{03} represents a linear divalent hydrocarbon group having 1 to 30 carbon atoms or a branched or cyclic divalent hydrocarbon group having 3 to 30 carbon atoms which may be substituted with a heteroatom, or interposed by a heteroatom; and R^{01} and R^{02} may be mutually bonded to form a ring together with the sulfur atom in the formula. A photo acid generator can give a pattern excellent in resolution and LER and having a rectangular profile in the photolithography using a high energy beam like ArF excimer laser light, EUV, and electron beam as a light source.

19 Claims, 3 Drawing Sheets