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(54) PHOTOSENSITIVE COMPOSITION, COMPOUND FOR USE IN THE PHOTOSENSITIVE COMPOSITION, AND PATTERN-FORMING METHOD USING THE PHOTOSENSITIVE COMPOSITION

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(56) References Cited

U.S. PATENT DOCUMENTS

6,680,157 B1 1/2004 Fedynyshyn 2006/0210919 A1* 9/2006 Mizutani et al. 430/270.1 2007/0072117 A1* 3/2007 Mizutani et al. 430/270.1

FOREIGN PATENT DOCUMENTS

EP 1480078 A1 5/2004

\mathbf{EP}	1 693 705	A2	*	8/2006
EP	1 703 326	A2	*	9/2006
EP	1 767 991	A2	*	3/2007
JP	6-41221	A		2/1994
JP	2000-122291	A		4/2000
JP	3173368	B2		3/2001
JP	2001-114825	Α		4/2001
JP	2001-206917	A		7/2001
JP	2002-323768	Α		11/2002
JP	2003-149800	Α		5/2003
JP	3549592	B2		4/2004
JP	2006-276759		*	10/2006

OTHER PUBLICATIONS

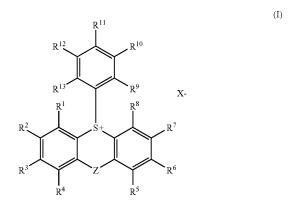
Machine-assisted English translation of JP2006-276759 provided by JPO.*

* cited by examiner

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(57) ABSTRACT

A photosensitive composition includes (A) a compound represented by the following formula (I):



wherein R^1 to R^{13} each independently represents a hydrogen atom or a substituent, Z represents a single bond or a divalent linking group, and X^- represents an anion containing a proton acceptor functional group.

16 Claims, 1 Drawing Sheet