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Li et al.

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(54) **SILICONE-COMPATIBLE
PHOTOINITIATORS**

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(57) **ABSTRACT**

Compounds useful as a photoinitiator and/or photosensitizer represented by the following formula (I):

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(65) **Prior Publication Data**

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Related U.S. Application Data

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(51) **Int. Cl.**
C08F 2/50 (2006.01)
C08F 2/46 (2006.01)
C08G 61/04 (2006.01)

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(52) **U.S. Cl.**
CPC **C07F 7/1852** (2013.01); **C07F 5/02** (2013.01); **C07F 7/025** (2013.01); **C07F 7/0849** (2013.01); **C08G 77/14** (2013.01); **C08G 77/80** (2013.01);

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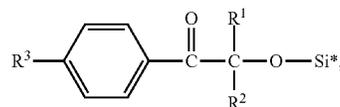
(58) **Field of Classification Search**
CPC C07F 7/1852; C07F 7/05; C07F 5/02; C07F 7/0849; C08G 77/14; C08G 77/80; C08J 2343/04; C08J 3/28; C08K 5/5419
USPC 522/42, 33, 6, 71, 189, 184, 1; 520/1
See application file for complete search history.

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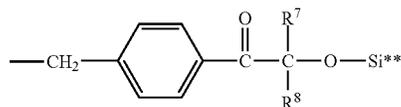
(I)

wherein

R¹ and R² each independently designates an alkyl group of 1 to 12 carbon atoms or a cycloalkyl group of 5 or 6 carbon atoms or R¹ and R² form together with the carbon atom to which they are attached a cycloaliphatic ring of 5 or 6 carbon atoms,

Si* represents an organopolysiloxane residue bonded via a silicon atom of this residue to the oxygen shown in formula (I), or a silane group SiR⁴R⁵R⁶, wherein R⁴, R⁵ and R⁶ each independently designates an alkyl group of 1 to 12 carbon atoms, a cycloalkyl group of 5 or 6 carbon atoms or an aryl group of 6 to 10 carbon atoms, and

R³ designates a hydrogen atom or a group represented by the following formula (II)



(II)

wherein

R⁷ and R⁸ each independently designates an alkyl group of 1 to 12 carbon atoms or a cycloalkyl group of 5 or 6 carbon atoms or R⁷ and R⁸ form together with the carbon atom to which they are attached a cycloaliphatic ring of 5 or 6 carbon atoms, and

Si** represents an organopolysiloxane residue bonded via a silicon atom of this residue to the oxygen shown in formula (II), or a silane group SiR⁹R¹⁰R¹¹, wherein R⁹, R¹⁰ and R¹¹ each independently designates an alkyl group of 1 to 12 carbon atoms, a cycloalkyl group of 5 or 6 carbon atoms or an aryl group of 6 to 10 carbon atoms.

17 Claims, No Drawings