



(11) **EP 2 233 978 A8**

(12) **CORRECTED EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(15) Correction information:
Corrected version no 1 (W1 A1)
Corrections, see
Bibliography INID code(s) 71

(51) Int Cl.:
G03F 7/11 (2006.01) **C08F 216/06** (2006.01)
C08F 220/10 (2006.01) **C08F 226/10** (2006.01)
H01L 21/027 (2006.01)

(48) Corrigendum issued on:
03.11.2010 Bulletin 2010/44

(86) International application number:
PCT/JP2008/072681

(43) Date of publication:
29.09.2010 Bulletin 2010/39

(87) International publication number:
WO 2009/081773 (02.07.2009 Gazette 2009/27)

(21) Application number: **08863406.8**

(22) Date of filing: **12.12.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
RO SE SI SK TR

(30) Priority: **26.12.2007 JP 2007334891**

(71) Applicant: **AZ Electronic Materials USA Corp.**
Somerville, NJ 08876 (US)

(72) Inventors:
• **NOYA, Go**
Kakegawa-shi
Shizuoka 437-1412 (JP)

• **AKIYAMA, Yasushi**
Kakegawa-shi
Shizuoka 437-1412 (JP)
• **TAKANO, Yusuke**
Kakegawa-shi
Shizuoka 437-1412 (JP)

(74) Representative: **Féaux de Lacroix, Stefan**
Isenbruck Bösl Hörschler LLP
Eastsite One
Seckenheimer Landstrasse 4
68163 Mannheim (DE)

(54) **COMPOSITION FOR FORMATION OF ANTI-REFLECTIVE FILM, AND PATTERN FORMATION METHOD USING THE COMPOSITION**

(57) The present invention provides a composition for forming a top anti-reflection coating having a low refractive index, realizing a gradual swing curve and giving a small swing ratio. This composition comprises a solvent and an anthracene skeleton-containing polymer having a hydrophilic group. The composition forms an anti-reflection coating on a photoresist film, and can be used in a photolithographic process for forming a pattern by use of light having a wavelength of 160 to 260 nm.

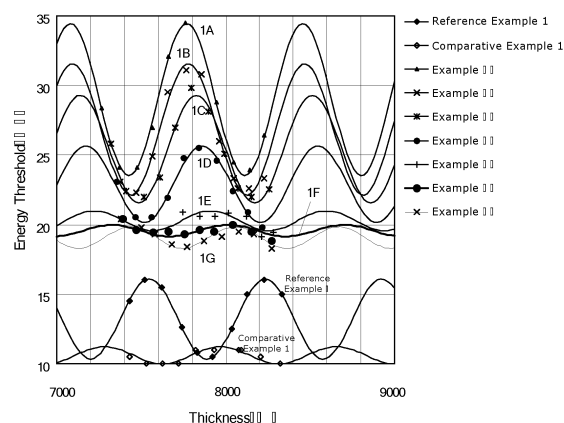


Fig. 1