

(19) World Intellectual Property Organization
International Bureau

G00002

(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/025376 A3(51) International Patent Classification⁷: G03F 7/004,
7/038, 7/039, C07C 309/63

(21) International Application Number: PCT/EP01/10784

(22) International Filing Date:
18 September 2001 (18 09 2001)

(25) Filing Language: English

(26) Publication Language: English

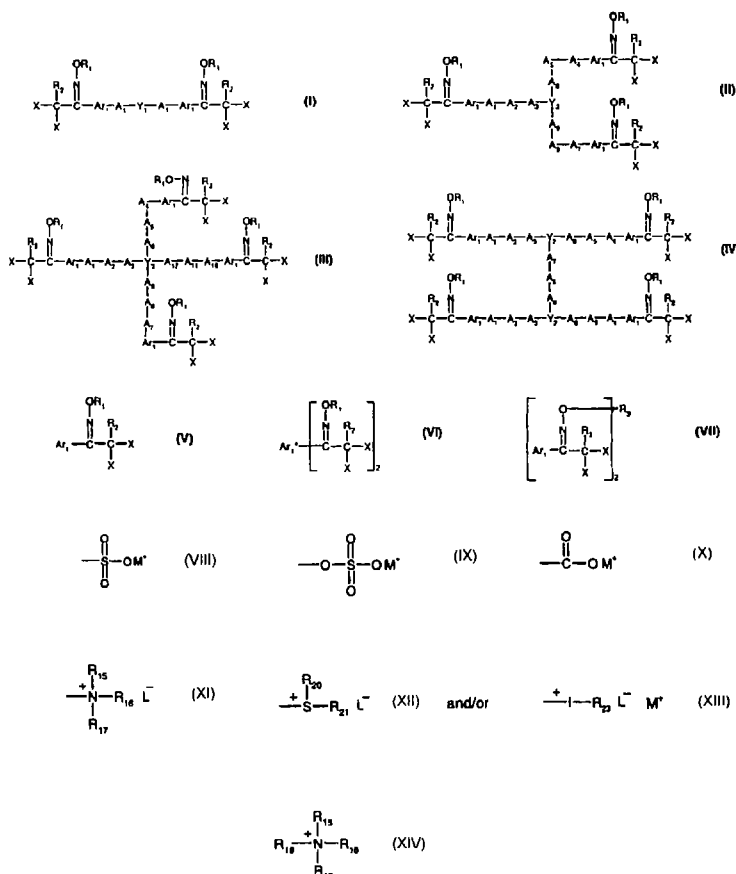
(30) Priority Data:
00810879 7 25 September 2000 (25.09 2000) EP(71) Applicant (for all designated States except US): CIBA
SPECIALTY CHEMICALS HOLDING INC. [CH/CH],
Klybeckstrasse 141, CH-4057 Basel (CH)

(72) Inventors; and

(75) Inventors/Applicants (for US only): YAMATO, Hitoshi
[JP/JP], 5-2-22-201 Nakayamasatsukidai, Takarazuka-shi,
Hyogo 665-0871 (JP) ASAKURA, TOSHIKAGE
[JP/JP], 4-16-46, Minoo, Minoo-shi, Osaka 562-0001 (JP)
MATSUMOTO, Akira [JP/JP], 2-13-13-102, Mukonosohigashi,
Amagasaki-shi, Hyogo 661-0032 (JP). OHWA,
Masaki [JP/JP], 1-1-4, Kotoku-cho, Nada-ku, Kobe-shi,
Hyogo 657-0025 (JP)(74) Common Representative: CIBA SPECIALTY CHEMICALS
HOLDING INC.; Patentabteilung, Klybeckstrasse
141, CH-4057 Basel (CH)(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,

[Continued on next page]

(54) Title: OXIME DERIVATIVES AND THE USE THEREOF AS LATENT ACIDS



(57) Abstract: New oxime sulfonate compounds of formula (I, II, III, IV, V, VI and VII) wherein R₁ is for example C₁-C₁₈ alkyl-sulfonyl, R₂ is halogen or C₁-C₁₀ haloalkyl; R₃ is for example unsubstituted or substituted phenylenedisulfonyl, diphenylenedisulfonyl, or oxydiphenylenedisulfonyl, Ar₁ is for example a direct bond, C₁-C₁₂ alkylene, -O-C-bond or a O-Si-bond which cleaves upon the action of an acid, A₁, A₂, A₃, A₄, A₅, A₆, A₇, A₈, A₉, A₁₀, A₁₁ and A₁₂ are for example a direct bond, -O-, or S-, or are C₁-C₁₂ alkylene or phenylene unsubstituted or substituted, Y₁ is C₁-C₁₂ alkylene which is for example substituted by OR₄, or SR₇; Y₂ is e.g. a trivalent radical of C₁-C₁₂ alkylene, Y₃ is e.g. a tetravalent radical of C₁-C₁₂ alkylene; X is halogen, Ar'₁ is for example C₁-C₁₂ alkyl which is unsubstituted or substituted, Ar''₁ is for example phenylene; provided that at least one of the radicals Ar'₁, Ar''₁, is substituted by 1 to 3 groups of (VIII), (IX), (X), (XI), (XII) and/or (XIII); M⁺ is e.g. (XIV), L⁻ is for example halogen, R₁₅, R₁₆, R₁₇ and R₁₈ are e.g. hydrogen or phenyl; R₁₉, R₂₀, R₂₁, R₂₂ and R₂₃ are e.g. phenyl, are especially suitable for the preparation of photoresists

WO 02/025376 A3



MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

(88) Date of publication of the international search report:

13 March 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette