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(21) International Application Number: PCT/EP99/03805 (22) International Filing Date: 2 June 1999 (02.06.99) (30) Priority Data: 09/096,036 11 June 1998 (11.06.98) US (71) Applicant: CLARIANT INTERNATIONAL, LTD. [CH/CH]; Rothausstrasse 81, CH-4132 Muttenz (CH). (72) Inventors: MCCULLOCH, Iain; 18 Hampton Court, Basking Ridge, NJ 07920 (US); EAST, Anthony, J.; 62 Niles Avenue, Madison, NJ 07940 (US); KANG, Ming; 285 McFarlane Road, Colonia, NJ 07067 (US); KEOSIAN, Richard; 554 Roundtable Drive, Nazareth, PA 18064 (US). YOON, Hyun-Nam; 88 Colchester Road, New Providence, NJ 07947 (US). (74) Agent: HÜTTER, Klaus; Clariant GmbH, Patente, Marken, Lizenzen, Am Unisys-Park 1, D-65843 Sulzbach (DE).		(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.
(54) Title: 193 NM POSITIVE-WORKING PHOTORESIST COMPOSITION (57) Abstract A polymer that when used with a suitable photoacid generator (PAG) forms a positive working photoresist. The polymer comprises of a tartaric polyanhydride backbone, an acetal protected 1,2 diol group; and a fused ring acetal group pendant to the backbone. The acetal protected α-hydroxy anhydride backbone structure, undergoes a efficient photoacid catalyzed cleavage, which gives rise to small molecular weight fragments which are readily dissolved in an aqueous base developer. This high contrast in solubility allows high resolution images to be produced. The fused rings offer etch resistance and can be comprised of either an adamantone or norcamphor ring structure. With the addition of a commercially available photo acid generator, the polymer formulation forms a positive working photoresist that offers high contrast and resolution.		