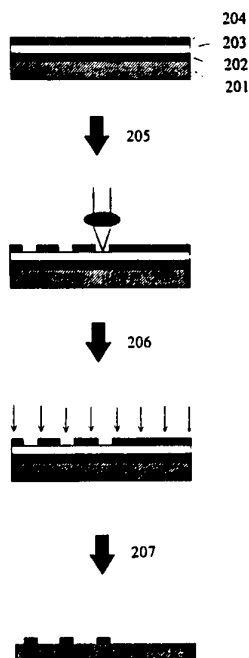




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : G03F 7/075, 7/095, 7/11</p>	<p>A3</p>	<p>(11) International Publication Number: WO 97/00777 (43) International Publication Date: 9 January 1997 (09.01.97)</p>
<p>(21) International Application Number: PCT/US96/10734 (22) International Filing Date: 21 June 1996 (21.06.96) (30) Priority Data: 08/494,617 23 June 1995 (23.06.95) US (71) Applicant: SUN CHEMICAL CORPORATION [US/US]; 222 Bridge Plaza South, Fort Lee, NJ 07024 (US). (72) Inventors: NGUYEN, My, T.; 345 Claremont Avenue, Montclair, NJ 07042 (US). ZHU, Hui; 80 Crotty Avenue, Yonkers, NY 10704 (US). PAPPAS, S., Peter; 10 Rockspring Road, West Orange, NJ 07052 (US). SHIMAZU, Ken-ichi; 494 Chappaqua Road, Briarcliff Manor, NY 10510 (US). HALLMAN, Robert, W.; 588 Windsor Drive, Palisades Park, NJ 07650 (US). (74) Agent: PERSLEY, Sidney; 222 Bridge Plaza South, Fort Lee, NJ 07024 (US).</p>	<p>(81) Designated States: CA, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 30 January 1997 (30.01.97)</p>	

(54) Title: DIGITAL LASER IMAGABLE LITHOGRAPHIC PRINTING PLATES



(57) Abstract

Lithographic printing plates for wet or waterless offset printing are disclosed which can be imagewise exposed using a digitally controlled IR laser. The invention comprises a laser imageable lithographic printing plate comprising a substrate (201), a photosensitive coating (202) on the substrate, and a water soluble laser ablatable top coating (264) containing dyes or polymers that absorb infra-red, ultraviolet and visible light. Laminated transparent polymer films and/or peelable polymeric coatings films (203) can be interposed between the coated substrate and a water soluble and/or organic solvent soluble laser ablatable top layer to augment plate production or image inscription on the plate.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/10734

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :G03F 7/075, 7/095, 7/11
US CL :430/156,273.1, 272.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 430/156,273.1, 272.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US,A, 4,132,168 (PETERSON) 02 January 1979, col. 1, lines 14-22, 58-66, col. 2, lines 3-8, 14-24.	1-2,4-7, 9-10
Y	US,A, 5,262,275 (FAN) 16 November 1993, col. 4, lines 11-68, col. 5, lines 1-3, col. 6, lines 3-18, 24-33, 45-68, col. 7, lines 46-56, col. 9, lines 4-19.	1-2, 4-7, 9-10
A	US,A, 4,755,445 (HASEGAWA) 05 July 1988, col. 3-4, Abstract.	none
A,P	US,A, 5,512,420 (HALLMAN ET AL) 30 April 1996, Abstract.	none
A,P	US,A, 5,478,695 (LEENDERS) 26 December 1995, Abstract.	none

Further documents are listed in the continuation of Box C. See patent family annex.

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