

Title (en)
SCATTEROMETRY ALIGNMENT FOR IMPRINT LITHOGRAPHY

Title (de)
STREUUNGSMESSAUSRICHTUNG FÜR DIE DRUCKLITHOGRAPHIE

Title (fr)
ALIGNEMENT PAR DIFFUSIOMETRIE POUR LITHOGRAPHIE PAR EMPREINTE

Publication
EP 1573395 A4 20100929 (EN)

Application
EP 03767009 A 20030731

Priority

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- US 21078002 A 20020801
- US 21089402 A 20020801

Abstract (en)
[origin: WO2004013693A2] Described are methods for patterning a substrate by imprint lithography. Imprint lithography is a process in which a liquid is dispensed onto a substrate. A template is brought into contact with the liquid and the liquid is cured. The cured liquid includes an imprint of any patterns formed in the template. Alignment of the template with a previously formed layer on a substrate, in one embodiment, is accomplished by using scatterometry.

IPC 8 full level
G01B 11/00 (2006.01); **G01N 21/86** (2006.01); **G03F 1/00** (2006.01); **G03F 7/00** (2006.01); **G03F 7/20** (2006.01); **G03F 9/00** (2006.01)

IPC 8 main group level
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CPC (source: EP KR)
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Citation (search report)

- [XY] US 2002098426 A1 20020725 - SREENIVASAN S V [US], et al
- [XY] US 2002093122 A1 20020718 - CHOI BYUNG J [US], et al
- [XY] US 2002062204 A1 20020523 - NAKAJIMA SHINICHI [JP]
- [X] US 6153886 A 20001128 - HAGIWARA SHIGERU [JP], et al
- [XY] JP H02152220 A 19900612 - CANON KK
- [XY] WHITE D L ET AL: "Novel alignment system for imprint lithography", JOURNAL OF VACUUM SCIENCE AND TECHNOLOGY: PART B, AVS / AIP, MELVILLE, NEW YORK, NY, US LNKD- DOI:10.1116/1.1319706, vol. 18, no. 6, 1 November 2000 (2000-11-01), pages 3552 - 3556, XP002204287, ISSN: 1071-1023
- [IY] CHOI B J ET AL: "Layer-to-layer alignment for step and flash imprint lithography", PROCEEDINGS OF THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING (SPIE), SPIE, USA LNKD- DOI:10.1117/12.436662, vol. 4343, 1 January 2001 (2001-01-01), pages 436 - 442, XP002275988, ISSN: 0277-786X
- See references of WO 2004013693A2

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