

Title (en)
ELECTRON BEAM-OPTICAL HYBRID LITHOGRAPHIC RESIST PROCESS.

Title (de)
HYBRIDES ELECTRONENSTRAHLOPTISCHES LITHOGRAPHISCHES PHOTOLACKVERFAHREN.

Title (fr)
PROCEDE DE FORMATION D'UN MATERIAU DE PROTECTION LITHOGRAPHIQUE HYBRIDE A RAYON ELECTRONIQUE/OPTIQUE.

Publication
EP 0104235 A4 19840914 (EN)

Application
EP 83901447 A 19830301

Priority
US 36332482 A 19820329

Abstract (en)
[origin: WO8303485A1] An intra-level, hybrid electron beam/optical lithographic process. A substrate is prepared by applying an adhesion promoter which is compatible with both electron beam and optical processing. To the adhesion promoted substrate surface a layer of positive resist material is applied. A fine pattern (10) is delineated in the resist by writing with an electron beam to leave a fine pattern of unexposed resist. Large areas (12) of the resist material are optically exposed while protecting the fine pattern with an optically opaque mask. Electron beam (10) and optically exposed (12) portions are removed in a developing step to leave a fine geometry pattern of resist adherent to the substrate surface.

IPC 1-7
G03C 5/04; G03C 5/16

IPC 8 full level
G03F 7/00 (2006.01); **G03C 1/91** (2006.01); **G03F 7/075** (2006.01); **G03F 7/20** (2006.01); **H01J 37/317** (2006.01)

CPC (source: EP)
B82Y 10/00 (2013.01); **B82Y 40/00** (2013.01); **G03F 7/0751** (2013.01); **G03F 7/2022** (2013.01); **H01J 37/3174** (2013.01)

Citation (search report)

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- [X] US 4103045 A 19780725 - LESAICHERRE ANDRE, et al
- [X] SOLID STATE TECHNOLOGY, August 1981, Port Washington N.Y. (US);
- [X] ELECTRONICS INTERNATIONAL, vol. 54, no. 24, November 30, 1981, New York (US);
- [A] IBM TECHNICAL DISCLOSURE BULLETIN, vol. 19, no. 7, December 1976, New York (US);
- [XP] PATENTS ABSTRACTS OF JAPAN, vol. 6, no. 147, (E-123)(1025), August 6, 1982; & JP-A-57 072 327 (TOKYO SHIBAURA DENKI K.K.) (06.05.1982)
- [X] IBM TECHNICAL DISCLOSURE BULLETIN, vol. 20, no. 4, September 1977, New York (US);
- [XP] CHEMICAL ABSTRACTS, vol. 97, no. 16, October 1982, abstract no. 136574a, page 629, Columbus Ohio (US);

Designated contracting state (EPC)
CH DE FR LI NL

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DOCDB simple family (application)
US 8300273 W 19830301; EP 83901447 A 19830301; JP 50148583 A 19830301