

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 June 2001 (14.06.2001)

PCT

(10) International Publication Number
WO 01/42858 A1

(51) International Patent Classification⁷: **G03F 7/00**,
B41M 1/06, B82B 1/00, 3/00

(21) International Application Number: PCT/SE00/02417

(22) International Filing Date: 4 December 2000 (04.12.2000)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:
9904517-1 10 December 1999 (10.12.1999) SE

(71) Applicant and

(72) Inventor: **HEIDARI, Babak** [SE/SE]; Södra Ljungvägen
10, S-244 65 Furulund (SE).

(74) Agents: **HYNELL, Magnus** et al.; Hynell Patenttjänst
AB, Patron Carls väg 2, S-683 40 Hagfors/Uddeholm (SE).

(81) Designated States (national): AE, AG, AL, AM, AT, AT
(utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA,

CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility
model), DK, DK (utility model), DM, DZ, EE, EE (utility
model), ES, FI, FI (utility model), 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, MX,
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK
(utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW.

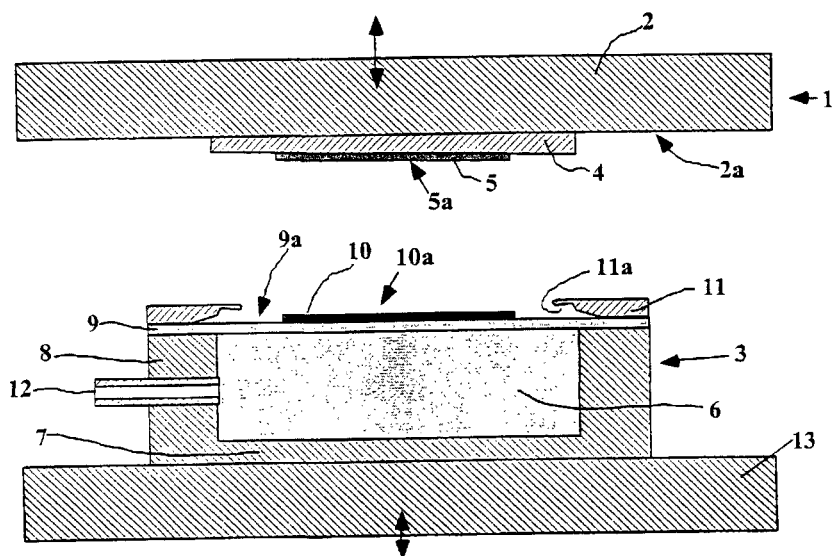
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR,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

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: DEVICE AND METHOD IN CONNECTION WITH THE PRODUCTION OF STRUCTURES



(57) Abstract: Device in connection with the lithography of structures of nanometre size, which device comprises a first main part (1) with a first principally plane surface (2a) and a second main part (3) with a second principally plane surface (9a), said first surface and second surface being opposite to one another and being arranged in principle parallel in relation to one another, with an adjustable interval between them, and said first and second surface being arranged to form a support for a substrate (5) and a template (10) respectively, or vice-versa. According to the invention, said second main part (3) also comprises a cavity (6) for a medium, and means for adjusting a pressure of said medium, a wall of said cavity consisting of a flexible membrane (9), of which one side, which side faces away from the cavity (6), forms said second surface (9a). The invention also relates to a method that utilizes the device.