

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/095519 A3

(51) International Patent Classification⁷: **G02B 6/30**

[US/US]; Princeton Junction, NJ (US). **YANG, Liyou**
[US/US]; Plainsboro, NJ (US).

(21) International Application Number:

PCT/US2004/012634

(74) Agent: **DARCY, Jonathan, M.**; Reed Smith LLP, 2500
One Liberty Place, 1650 Market Street, Philadelphia, PA
19103 (US).

(22) International Filing Date: 23 April 2004 (23.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/464,763 23 April 2003 (23.04.2003) US

(71) Applicant (for all designated States except US):
DEWELL CORP. [KR/KR]; Nova Bldg., 3F 641-3,
Yuksam-Dong, Kangnam-ku-Seoul 135-081 (KR).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
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, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

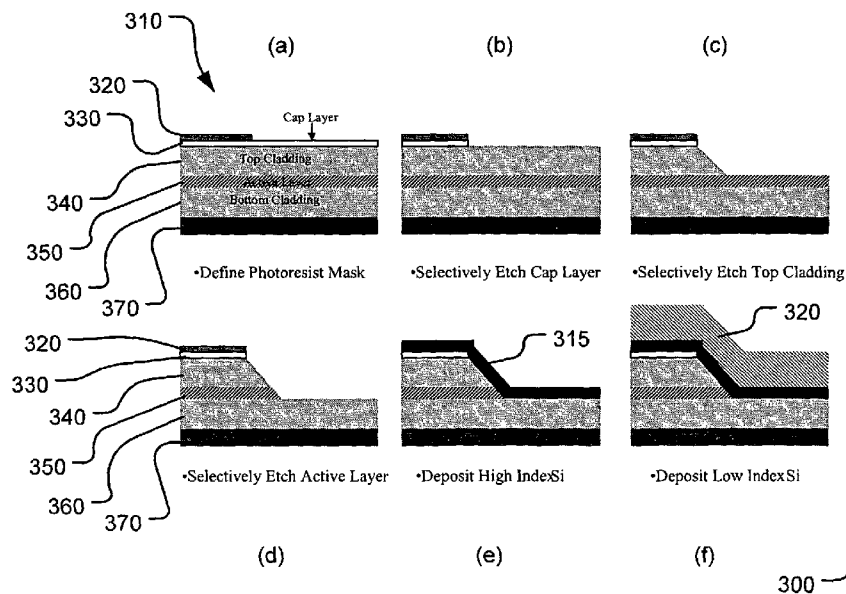
(72) Inventors; and

(75) Inventors/Applicants (for US only): **ABELES, Joseph**
[RU/RU]; East Brunswick, NJ (US). **CAPEWELL, David**
[US/US]; Brown Mills, NJ (US). **DIMARCO, Lou**
[US/US]; Mercer County, NJ (US). **KWAKERNAAK, Martin**
[US/US]; New Brunswick, NJ (US). **MALEY, Nagendranath**
[US/US]; Exton, PA (US). **MOHSENI, Hooman** [US/US]; Princeton, NJ (US). **WHALEY, Ralph**

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR COUPLING WAVEGUIDES



(57) Abstract: A method for photonic coupling to at least one active photonic device structure formed on a substrate, the method including: etching the active device structure (310) with a high selectivity towards a crystallographic plane to form a sloped terminus with respect to the substrate (370); and, depositing at least one waveguide (315) over the etched terminus and at least a portion of the substrate (370); wherein, the waveguide (315) is photonic coupled to the etched active device structure (310) to provide photonic interconnectivity for the etched active device structure.

WO 2004/095519 A3



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:

6 May 2005

Published:

— with international search report

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