

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/112206 A3

(51) International Patent Classification⁷: **H01S 3/094**,
G02B 6/42, 6/34

(21) International Application Number:
PCT/IL2004/000512

(22) International Filing Date: 14 June 2004 (14.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/478,355 16 June 2003 (16.06.2003) US

(71) Applicant (for all designated States except US): **SOREQ
NUCLEAR RESEARCH CENTER** [IL/IL]; Nahal
Soreq, 81800 Yavne (IL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SINTOV, Yoav**
[IL/IL]; 32 Degel Reuven Street, 49551 Petah Tikva (IL).

(74) Agent: **KLEIN, David**; Beit HaRo'im, 18 Menuha VeNa-
hala Street, Room 27, 76209 Rehovot (IL).

(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.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

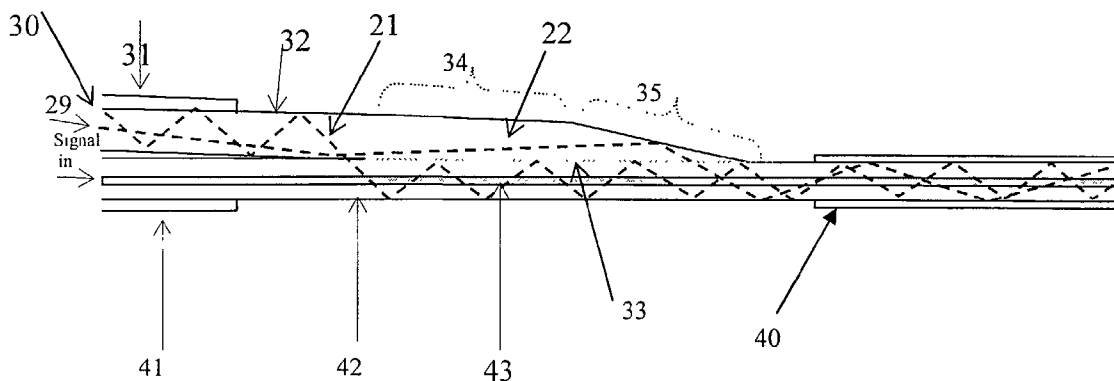
Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
12 May 2005

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: OPTICAL APPARATUS



(57) Abstract: Optical apparatus comprising a pump guiding fiber comprising a fiber cladding, a fiber core and an attachment section, the attachment section comprising a straight core section and a tapered core section, and a receiving fiber comprising an inner clad to which the attachment section is attached.

WO 2004/112206 A3