

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
6 March 2003 (06.03.2003)

PCT

(10) International Publication Number
WO 2003/019256 A3(51) International Patent Classification:
G02B 6/16 (2006.01)

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(21) International Application Number:
PCT/US2002/022880

(22) International Filing Date: 18 July 2002 (18.07.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/314,216 22 August 2001 (22.08.2001) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

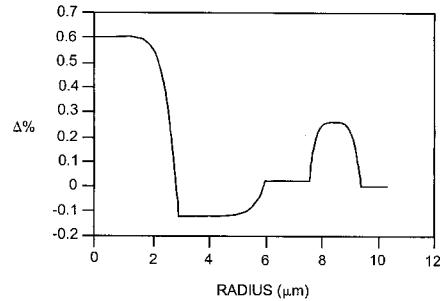
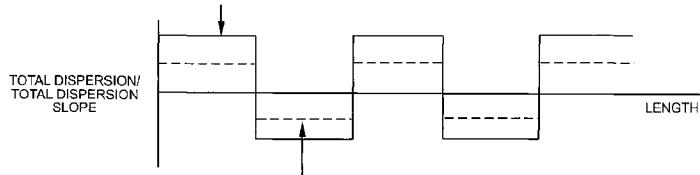
(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR).

Published:

— with international search report

(88) Date of publication of the international search report:
28 February 2008

(54) Title: CONTROLLED DISPERSION OPTICAL FIBER



WO 2003/019256 A3

(57) Abstract: Disclosed is a dispersion controlled optical waveguide fiber, and telecommunication systems using such a waveguide fiber, in which the end to end total dispersion and total dispersion slope is controlled by varying the refractive index profile along the fiber length. The waveguide fiber includes length portions each of which is characterized by total dispersion having a magnitude and sign and total dispersion slope having a magnitude and sign. The magnitudes and signs of total dispersion and total dispersion slope of respective length portions are chosen to provide for the optical waveguide fiber a desired end to end total dispersion and total dispersion slope. An advantage is achieved in the present invention by designing the refractive index profiles of the length portions to have total dispersion and total dispersion slope of opposite sign.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 02/22880

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G02B6/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>PATENT ABSTRACTS OF JAPAN vol. 1997, no. 05, 30 May 1997 (1997-05-30) & JP 09 023187 A (FUJITSU LTD), 21 January 1997 (1997-01-21) abstract paragraph [0041]; figures 2-4 paragraph [0048] - paragraph [0049] paragraph [0061] - paragraph [0062]; figures 6,7</p> <p>---</p> <p>PATENT ABSTRACTS OF JAPAN vol. 1998, no. 04, 31 March 1998 (1998-03-31) & JP 09 318833 A (FURUKAWA ELECTRIC CO LTD:THE), 12 December 1997 (1997-12-12) abstract; figures 1,4</p> <p>---</p> <p style="text-align: center;">-/-</p>	1,19-21, 26
X		1,10-12, 26

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

30 September 2003

Date of mailing of the international search report

16/10/2003

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/22880

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	AINSLIE B J ET AL: "A review of single-mode fibers with modified dispersion characteristics" JOURNAL OF LIGHTWAVE TECHNOLOGY, AUG. 1986, USA, vol. LT-4, no. 8, pages 967-979, XP002256150 ISSN: 0733-8724 page 970 -page 971; figure 6 ---	11,12, 20,21
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PCT/US 02/22880	

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