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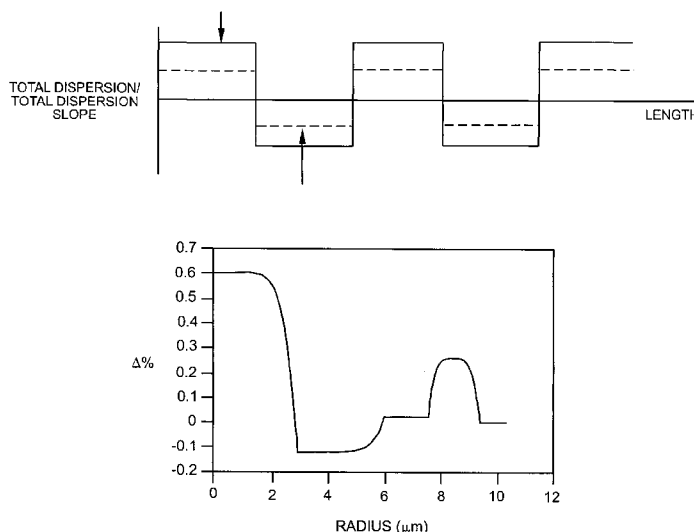
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(54) Title: CONTROLLED DISPERSION OPTICAL FIBER



(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.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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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	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 ---	1,19-21, 26
X	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 ---	1,10-12, 26
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category ^o	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

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