PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G02B 6/24, F21V 8/00, G02B 23/24, 5/02 — A1

(11) International Publication Number: WO 99/50697

(43) International Publication Date: 7 October 1999 (07.10.99)

(21) International Application Number: PCT/US99/06205

(22) International Filing Date: 22 March 1999 (22.03.99)

(30) Priority Data:
10/81394 27 March 1998 (27.03.98) JP

(71) Applicant *(for all designated States except US)*: MINNESOTA MINING AND MANUFACTURING COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint-Paul, MN 55133-3427 (US).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: HATA, Michiru [JP/JP]; 16-8-401, Yabe 4-chome, Sagamihara-city, Kanagawa pref. 229-0032 (JP).

(74) Agents: BUCKINGHAM, Stephen, W. et al.; Minnesota Mining and Manufacturing Company, Office of Intellectual Property Counsel, P.O. Box 33427, Saint Paul, MN 55133-3427 (US).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: SPOT LIGHT FIBER AND ILLUMINATING APPARATUS

(57) Abstract

A spot light fiber (100) which comprises a core (101) which can transmit the light entered from an incident end towards an output end (102) and output the light from the output end, and a light leaking means (103) positioned along the peripheral direction on the external peripheral face near the output end of the core; characterized in that the light leaking means is formed by using a light diffusive-transmissive light leaking film.

