

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

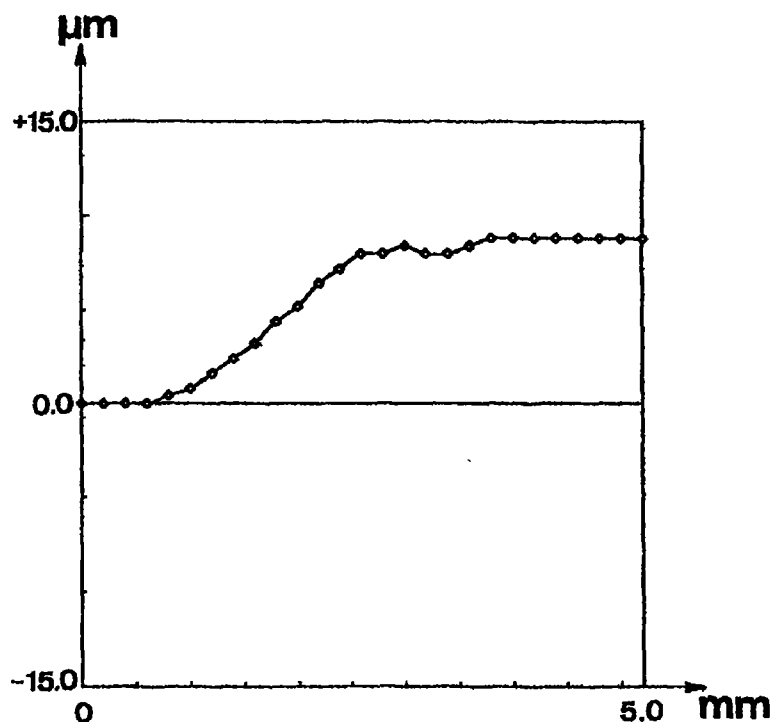
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C01B 33/12, C23C 18/12	A1	(11) International Publication Number: WO 00/14013 (43) International Publication Date: 16 March 2000 (16.03.00)
(21) International Application Number: PCT/IT99/00284 (22) International Filing Date: 6 September 1999 (06.09.99) (30) Priority Data: NO98A000004 9 September 1998 (09.09.98) IT (71) Applicant (for all designated States except US): GEL DESIGN AND ENGINEERING S.R.L. [IT/IT]; Via Fauser, 4, I-28100 Novara (IT). (72) Inventors; and (75) Inventors/Applicants (for US only): COSTA, Lorenzo [IT/IT]; Via Roma, 92, I-27048 Sommo (IT). COSTA, Pier, Paolo [IT/IT]; Via Roma, 92, I-27048 Sommo (IT). GRANDI, Stefania [IT/IT]; Via Verdi, 6, I-28070 Tornaco (IT). (74) Agent: VALENTINI, Giuliano; Marietti E Gislon S.r.l., Via Larga, 16, I-20122 Milano (IT).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, 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 <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <i>In English translation (filed in Italian).</i> *G00002*	

(54) Title: **PROCESS FOR PREPARING SILICA OR SILICA-BASED THICK VITREOUS FILMS ACCORDING TO THE SOL-GEL TECHNIQUE AND THICK FILMS THEREBY OBTAINED**

(57) Abstract

It is described a sol-gel process allowing the preparation, on a substrate, of glassy films of silicon oxide or mixed oxides based on silicon oxide, of thickness above 1 micrometer, generally between 2 and 20 micrometers, and characterised by absence of defects, that turn out to be particularly suitable as waveguides in flat optical devices.



162162