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(21) International Application Number: PCT/US97/06035 (22) International Filing Date: 15 April 1997 (15.04.97) (30) Priority Data: 08/643,656 6 May 1996 (06.05.96) US (71) Applicant: INNOTECH, INC. [US/US]; 5568 Airport Road, Roanoke, VA 24012 (US). (72) Inventors: BLUM, Ronald, D.; 5320 Silver Fox Road, Roanoke, VA 24014 (US). GUPTA, Amitava; 5322 Fox Den Road, Roanoke, VA 24014 (US). (74) Agents: WELLS, William, K., Jr. et al.; Kenyon & Kenyon, 1025 Connecticut Avenue, N.W., Washington, DC 20036 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, 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, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>With amended claims.</i>

(54) Title: REFRACTIVE INDEX GRADIENT LENS**(57) Abstract**

An optical product such as an optical lens, or semi-finished lens blank (10) is provided comprising a composite of at least three different and separately applied layers (40), each layer having a different refractive index which allow for a progressive multifocal lens having a wide and natural progression of vision when looking from far to near. In addition, a method is provided for simply, quickly and inexpensively manufacturing a composite refractive gradient progressive multifocal lens. A transition zone (45) disposed between a base and an outer layer (50) includes a distinct and separately applied transition layer or layers (40) having an effective refractive index which is intermediate between the refractive indices of the base and outer layers, and preferably approximates the geometric mean of the refractive indices of the base and outer layers. This transition zone may include multiple transition layers, with each transition layer having a different and distinct refractive index. The lens is substantially free of unwanted peripheral astigmatism, incorporates a wide reading zone and is easy to fit a patient and possesses a cosmetic appearance which is mostly invisible.

