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(21) International Application Number: PCT/US99/07065 (22) International Filing Date: 31 March 1999 (31.03.99) (30) Priority Data: 09/076,165 12 May 1998 (12.05.98) US (71) Applicant: MINNESOTA MINING AND MANUFACTURING COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (72) Inventors: MOSHREFZADEH, Robert, S.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). PADIYATH, Raghunath; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (74) Agent: GWIN, H., Sanders, Jr.; 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, 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>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: DISPLAY SUBSTRATE ELECTRODES WITH AUXILIARY METAL LAYERS FOR ENHANCED CONDUCTIVITY		
(57) Abstract		
A method for enhancing the conductivity of transparent conductive electrodes on display substrates by providing patterned auxiliary metallic layers adjacent to the transparent conductive material. The method of the present invention eliminates the need for aligning the auxiliary metal layers (26) with transparent conductive electrodes (22) a) by using an inclined collimated beam of metallic material (28) for depositing a metal coating (26) or resist strips (24), or b) by providing resist residuals at the corner of the metal coating, or by forming a contiguous metallic coating with a periodic array of holes therein which can be etched simultaneously with the underlying transparent conductive layer.		