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(21) International Application Number: PCT/US99/00466 (22) International Filing Date: 8 January 1999 (08.01.99) (30) Priority Data: 09/006,458 13 January 1998 (13.01.98) US (71) Applicant: MINNESOTA MINING AND MANUFACTURING COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (72) Inventors: KAUSCH, William, L.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). WILLIAMS, Brian, H.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). MERRILL, William, W.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (74) Agents: GWIN, H., Sanders 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: 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, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, 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>
(54) Title: DICHROIC POLARIZING FILM AND OPTICAL POLARIZER CONTAINING THE FILM (57) Abstract A dichroic polarizing film is made, for example, by first, dissolving polyvinyl alcohol and a second polymer such as polyvinyl pyrrolidone or a sulfonated polyester, in a solvent. The ratio of polyvinyl alcohol to second polymer is between about 5:1 to 100:1 by weight. The film is coated on a substrate, dried, and then stretched to orient at least a portion of the film. The film incorporates a dichroic dye material, such as iodine, to form a dichroic polarizer. This polarizer may be used in conjunction with a multilayer optical film, such as a reflective polarizer, to form an optical polarizer. The multilayer optical film may contain two or more sets of polyester films, where at least one of the sets is birefringent and orientable by stretching. The polyvinyl alcohol/second polymer film and the multilayer optical film may be simultaneously stretched to orient both polymer films.		