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【73】 Dichroic Light Polarizers from Tourmaline to Polaroid and Bernotar Filters

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The surprising optical properties of tourmaline were studied soon after the discovery of the polarization of light. Thin slices worked as polarizers, enabling the construction of simple, handheld polariscopes. The tourmaline tongs described by Karl Michael Marx in 1828 were a great success, especially after Nörrenberg simplified their construction. The fortuitous discovery in 1852 of almost colourless herapathite aroused great interest. However, efforts to produce crystals exceeding about one square centimetre remained unsuccessful until the early 1930s, when Edwin Land in the USA and Ferdinand Bernauer in Jena succeeded in manufacturing large sheets, thus extending the field of applications beyond mineralogy. sheets, thus extending the field of applications beyond mineralogy.

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