

Table 1: SUMMARY OF OPTICAL CHARACTERISTICS OF MATERIALS

	<u>Isotropic Materials</u>	<u>Anisotropic Materials</u>	
Crystal System(s):	Isometric	Hexagonal, Tetragonal	Mono., Ortho., Triclinic
Refractive Index:	One	Two	Three
Birefringence:	None	Yes	Yes
Plane Polarization:	No	Yes	Yes
Optic Axes:	No	1 (Uniaxial)	2 (Biaxial)
Optic Sign:	None	(+) or (-)	(+) or (-)
Pleochroism:	None	Max. 2 colors	Max. 3 colors
Dispersion:	Yes	Yes	Yes
Fluorescence:	Yes	Yes	Yes

Table 2. NON-DESTRUCTIVE INSTRUMENT TESTS

<u>Instrument</u>	<u>Tests for</u>
Polariscope	Anisotropic vs. Isotropic; locate Optic Axis
Dichroscope	Pleochroism (Isotropic vs. Anisotropic, Uniaxial vs. Biaxial for some materials)
Refractometer	Refractive Indices, Dispersion, Birefringence, Optic Sign, Isotropic vs. Anisotropic
Hydrostatic Weighing, Heavy Liquids	Specific Gravity