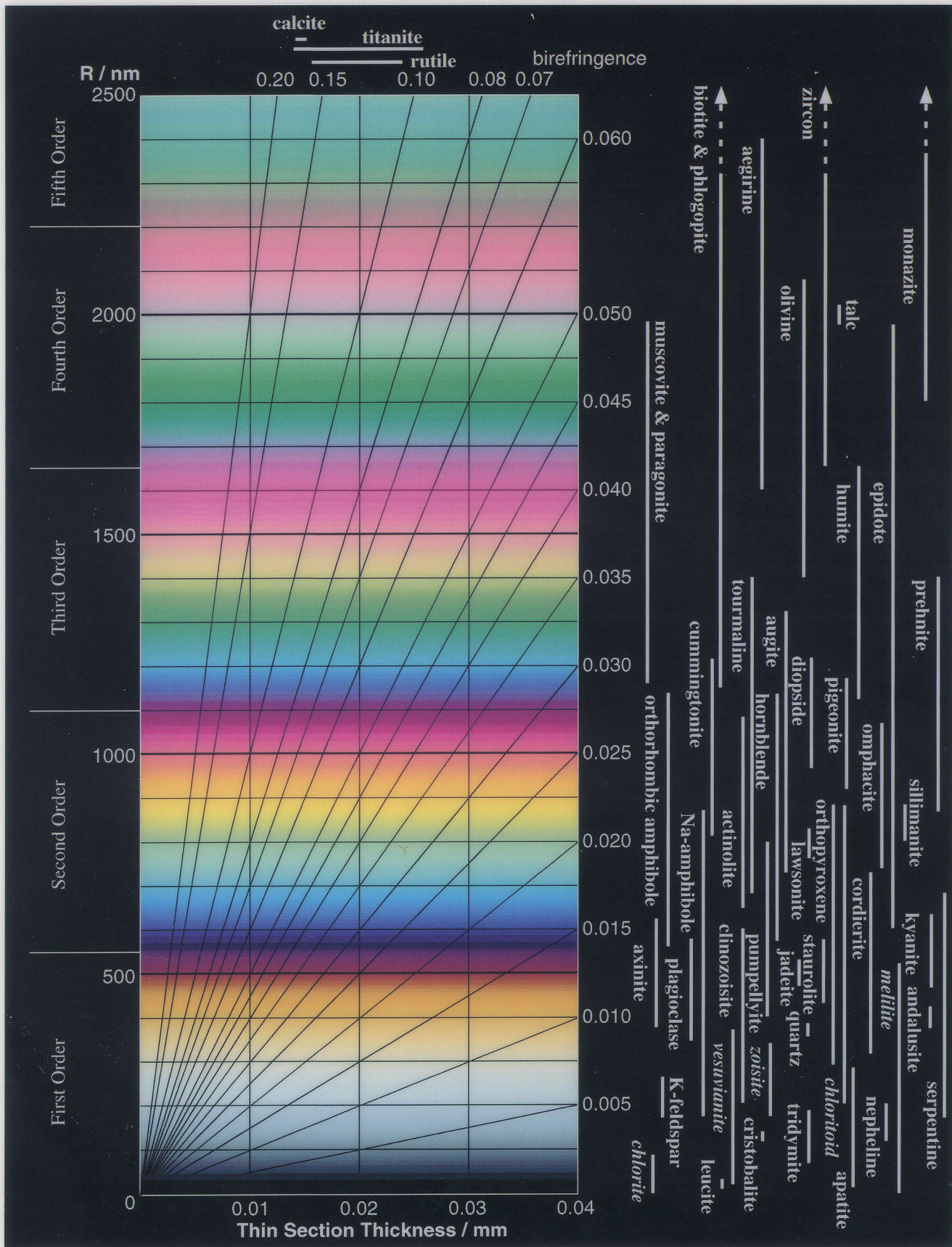


Interference color chart



Compiled by Takenori Kato



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Identification Chart for the Rock-Forming Minerals by Polarizing Microscope

		A	B	C	D	E	F	G	H
Optic Axial Angle 2Vz			0°	20°	60°	90°	-60°	-20°	-0°
Optic Character		Optically	Uniaxial	Biaxial	Optically Anisotropic			Biaxial	Uniaxial
Plane-Polarized Light		Isotropic	Positive	Positive	Conoscopic Observation			Negative	Negative
1 Colorless (*Cleavage Distinct) $n \leq 1.54-1.58$	Refractive Index Low	Fluorite*	Chabazite	Cryolite	Mordenite-*	Wairakite	Stilbite◆*	Chabazite	<div style="border: 1px solid black; padding: 2px;"> Most Important Minerals </div> <div style="border: 1px solid black; padding: 2px;"> Crossed Polarized Light </div> <div style="border: 1px solid black; padding: 2px;"> Elongation Sign + - </div> <div style="border: 1px solid black; padding: 2px;"> Straight Extinction + - </div> <div style="border: 1px solid black; padding: 2px;"> Low-angle Extinct. ▲▼ </div> <div style="border: 1px solid black; padding: 2px;"> High-angle Extinct. × </div> <div style="border: 1px solid black; padding: 2px;"> Elongation both signs ◆ </div> <div style="border: 1px solid black; padding: 2px;"> Twins </div> <div style="border: 1px solid black; padding: 2px;"> Polysynthetic = </div> <div style="border: 1px solid black; padding: 2px;"> Poly. in 2 directions # </div> <div style="border: 1px solid black; padding: 2px;"> Birefringence(Interference) </div> <div style="border: 1px solid black; padding: 2px;"> Small (Low) </div> <div style="border: 1px solid black; padding: 2px;"> Medium (Med) </div> <div style="border: 1px solid black; padding: 2px;"> Large (High) </div> <div style="border: 1px solid black; padding: 2px;"> Abnormal Interference Color </div> <div style="border: 1px solid black; padding: 2px;"> Conoscopic Dispersion Strong % </div> <div style="border: 1px solid black; padding: 2px;"> PPL Color Zoning Distinct ◎ </div>
	Cleavage Obscure	Opal	Heulandite▼*	Clinoptilolite*	Tridymite	Epistilbite▲*	Scolecite▼*	Sepiolite+*	
		Cristobalite	Chalcedony-/+	Thomsonite◆	Natrolite +	Fenaksite	Laumontite▲*	Cristobalite	
		Analcite	Leucite	Gypsum×*	Mesolite◆*	Canasite*	Orthoclase*	Cancrinite*	
		Sodalite	F,OH Apophyllite	Na	Phillipsite▲*	Microcline#*	(Perthite)	KaliophiliteKalsilite	
		Nosean(gray)	Quartz	Catapleite*	Ab,An50-80 Plagioclase=*	Sanidine*	Nepheline		
		Cement Resin	Xonotlite+*	Anhydrite+*	Petalite*	Cordierite -	Anorthoclase#*	Scapolite-*	
2 Colorless	Refractive Index High	Zunyite	Eudialyte	Topaz +	Pectolite	Andalusite-	Boehmite	Beryl-	
		Helvite	Phenakite	Mullite +	Chondrodite	Danburite%	Serpentine▲	Corundum-	
		Garnet	Mellite +	Sillimanite+	(Clino)Humite	Datolite	Kaolinite+	Melilite -	
		MgAl pink CaAl yel.	(Åkermanite)	Pumpellyite◆	Chrysoberyl	Axinite	Smectite 0-30°	(Gehlenite)	
	Cleavage Obscure	FeAl red CaFe brown MnAl red CaCr green	Stishovite	Larnite	Fo Olivine Fo<90	Pyrophyllite+	Apatite-		
3 Colorless	Refractive Index High		Alunite	Coesite 65°	Prehnite▼	Tremolite▲	Margarite+	Talc + 15°	
			Brucite	Barite Celestite	Lawsonite-	Cumingtonite▲	Paragonite+	Sericite Illite	
			(Clino)Zoisite ◆	Anthophyllite+	Gedrite Grunerite	Muscovite+	Phengite+		
	Cleavage Distinct	Periclase	Kotoite 21°	Augite×	En Orthopyroxene+ En<85	Wollastonite◆	Calcite Dolomite		
4 Blue-Purple	Fluorite	Scheelite	Clinoenstatite	Rhodonite(red)	Lazulite	Arfvedsonite▼◎			
	Hauyne	Osumilite	Chloritoid ▼ (Blue Green, Green)	Sapphirine%	Glaucophane▲◎	Crossite◆◎			
	Lazurite	Yoderite Turquoise	Azurite	Riebeckite▼◎	Winchite	Tourmaline-			
5 Brown	Perovskite Melanite◎	Cassiterite◎Thorite Monazite Aenigmatite Perovskite Melanite Allanite◆◎	Barkevikite	(hi.pleochroic)					
	Cr-Spinel Chromite	Brookite ◎%	Titanite(Sphene)%	Pargasite▲	Common	Richterite	Biotite+ Phlog.		
6 Green-Blue Green	Al-Spinel Hercynite		Antlerite	Omphacite×%	Hornblende▲	Barroisite▲	Stilpnomelane		
	Manganosite	Chlorite ▼	Hedenbergite×	Aegirine Aug.◎	Actinolite▲	Malachite	Chlorite ▲		
7 Yellow-Yellow Green	Pyrochlore	Xenotime-Y	Pumpellyite◆	Staurolite▲	Aegirine▼◎	Serpentine▲	Glaucosite▲		
	Limonite Helvite	Rutile	Lamprophyllite	Astrophyllite	Epidote ◆	Pistacite◆◎	Anatase		
8 Red-Red Purple-Pink	Garnet Cuprite	Eudialyte	Titanaugite×◎	Piemontite◆◎	Hypersthene+	Bustamite	Biotite+ Hematite		

Opaque Mins.(Reflection)	
Ilmenite (black, platy, ani)	
Magnetite (bk, bulky, iso)	
Hematite (red transl. ani)	
Pyrite (yellow, bulky, iso)	
Chalcopyrite (yel. bul. ani)	
Pyrrhotite (brown, platy, ani)	
Graphite (black, platy, ani)	

isotropic/anisotropic

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