

Contents

<i>Preface to Third Edition</i>	v	Serpentine	216
<i>Preface to Second Edition</i>	vii	Clay Minerals	224–227
<i>Preface to First Edition</i>	viii	<i>Kaolinite group, Illite group,</i>	
<i>Acknowledgements</i>	ix	<i>Smectite group, Vermiculite</i>	226
<i>Abbreviations and Symbols</i>	x	Prehnite	244
Key to optical sketches and data	1		
Ortho-, Di- and Ring Silicates			
Olivine	4	Silicate minerals	
Zircon	12	<i>Quartz, Tridymite, Cristobalite</i>	311
Titanite (sphene)	15	Feldspathoids	325–354
Garnet group	18	<i>Nepheline and Kalsilite, Leucite,</i>	
Vesuvianite (idocrase)	28	<i>Sodalite Group, Cancrinite–Vishnevite,</i>	
Sillimanite	30	<i>Scapolite</i>	325
Andalusite	33	Zeolite group	355–379
Kyanite	36	<i>Analcime, Natrolite, Phillipsite–</i>	
Staurolite	39	<i>Harmotome series, Laumontite,</i>	
Topaz	44	<i>Heulandite series, Chabazite series,</i>	
Chloritoid	47	<i>Mordenite</i>	363
Epidote group	52–64		
<i>Zoisite, Clinzozoisite, Epidote, Piemontite,</i>			
<i>Allanite</i>	53		
Lawsonite	65	Non-silicates	
Pumpellyite	68	Oxides	382
Melilite group	72–75	<i>Periclase, Cassiterite, Corundum,</i>	
<i>Gehlenite, Melilite, Åkermanite</i>	72	<i>Hematite, Ilmenite, Rutile, Anatase,</i>	
Beryl	76	<i>Brookite, Perovskite</i>	382
Cordierite	80	<i>Spinel group</i>	402
Tourmaline group	86–92	Al hydroxides and oxyhydroxides	409
<i>Dravite–Fluor-dravite, Schorl–Fluor-schorl,</i>		<i>Brucite, Gibbsite, Diaspore, Boehmite</i>	409
<i>Elbaite–Fluor-elbaite, Olenite–Fluor-olenite,</i>		Fe oxyhydroxides	417
<i>Uvite–Fluor-uvite</i>	86	<i>Goethite, Lepidocrocite, Ferrihydrite</i>	418
		Sulphides	423
Chain Silicates			
Pyroxene group	94–131	<i>Pyrite, Pyrrhotite, Chalcopyrite, Sphalerite,</i>	
<i>Enstatite–Ferrosilite, Pigeonite,</i>		<i>Galena</i>	424
<i>Diopside–Hedenbergite, Johannsenite,</i>		Sulphates	441
<i>Augite–Ferroaugite, Omphacite, Jadeite,</i>		<i>Baryte, Celestine, Gypsum, Anhydrite</i>	441
<i>Kosmochlor, Aegirine, Aegirine-augite,</i>		Carbonates	451
<i>Spodumene</i>	102	<i>Calcite, Magnesite, Siderite, Dolomite,</i>	
Wollastonite	132	<i>Aragonite, Strontianite</i>	453
Amphibole group	137–171	Phosphates	473
<i>Anthophyllite–Gedrite, Cummingtonite–</i>		<i>Apatite, Monazite</i>	473
<i>Grunerite, Tremolite–Ferro-actinolite,</i>		Halides	480
<i>Hornblendes, Kaersutite, Glaucomphane,</i>		<i>Fluorite, Halite</i>	480
<i>Riebeckite, Richterite–Ferrrichterite,</i>			
<i>Magnesiokatophorite–Katophorite,</i>		Appendix 1: Calculation of a chemical formula	
<i>Eckermannite–Arfvedsonite</i>	144	from a mineral analysis	485
Layered Silicates			
Mica group	174–180	Appendix 2: Atomic and molecular weights for	
<i>Muscovite, Paragonite, Glauconite,</i>		use in calculations of mineral formulae from	
<i>Phlogopite–Biotite, Lepidolite, Zinnwaldite</i>	181	chemical analyses	487
Stilpnomelane	199	Appendix 3: End-member (Mol%) calculations	488
Pyrophyllite	202	Appendix 4: Use of optical identification	
Talc	204	tables	490
Chlorite Group	208–215	<i>Table 4A: Birefringences and</i>	
<i>Clinochlore, chamosite</i>	208	<i>Michel-Levy colours</i>	491
		<i>Table 4B: Optical properties of</i>	
		<i>common minerals</i>	492
		Index	495