

Landolt-Börnstein
Group III: Condensed Matter

Volume 27
Magnetic Properties of Non-Metallic Inorganic Compounds Based on Transition Elements

Subvolume I3
Cyclosilicates

	Introductory material	
8	Magnetic and related properties of silicates and phosphates	1
8.1	Silicates	1
8.1.3	Cyclosilicates	1
8.1.3.1	Wadeite, walstromite, eudialyte and related silicates (Text)	1
8.1.3.1.1	Crystal structures. Lattice parameters	1
8.1.3.1.2	Nuclear gamma resonance (NGR) data	8
8.1.3.1.3	Nuclear magnetic resonance (NMR) data	9
8.1.3.1.4	Heat capacity	10
8.1.3.1.5	Optical properties	11
8.1.3.1	Wadeite, walstromite, eudialyte and related silicates (Tables)	16
8.1.3.1	Wadeite, walstromite, eudialyte and related silicates (Figures)	25
8.1.3.1	Wadeite, walstromite, eudialyte and related silicates (References)	50
8.1.3.2	Axinite-, ioaquinite-groups and related silicates (Text)	53
8.1.3.2.1	Crystal structures. Lattice parameters	53
8.1.3.2.2	Hyperfine parameters determined by ⁵⁷ Fe NGR method	56
8.1.3.2.3	Optical properties	56
8.1.3.2	Axinite-, ioaquinite-groups and related silicates (Tables)	57
8.1.3.2	Axinite-, ioaquinite-groups and related silicates (Figures)	63
8.1.3.2	Axinite-, ioaquinite-groups and related silicates (References)	70
8.1.3.3	Cordierite- and beryl-types silicates (Text)	72
8.1.3.3.1	Crystal structures. Lattice parameters	72
8.1.3.3.2	Magnetic properties	79
8.1.3.3.3	Neutron spectroscopy data	79
8.1.3.3.4	Nuclear gamma resonance (NGR) data	80
8.1.3.3.5	Nuclear magnetic resonance (NMR) data	82
8.1.3.3.6	Electron paramagnetic resonance (EPR) data	83
8.1.3.3.7	Heat capacity	85
8.1.3.3.8	XANES data	86
8.1.3.3.9	Optical properties	86
8.1.3.3	Cordierite- and beryl-types silicates (Tables)	91
8.1.3.3	Cordierite- and beryl-types silicates (Figures)	98
8.1.3.3	Cordierite- and beryl-types silicates (References)	119

8.1.3.4	Lovozerites and related silicates (Text)	123
8.1.3.4.1	Crystal structures. Lattice parameters	123
8.1.3.4.2	Optical properties	128
8.1.3.4	Lovozerites and related silicates (Tables)	129
8.1.3.4	Lovozerites and related silicates (Figures)	135
8.1.3.4	Lovozerites and related silicates (References)	142
8.1.3.5	Tourmaline family of silicates (Text)	144
8.1.3.5.1	Crystal structures. Lattice parameters	144
8.1.3.5.2	Magnetic properties	148
8.1.3.5.3	Neutron diffraction data	150
8.1.3.5.4	Nuclear magnetic resonance (NMR) data	150
8.1.3.5.5	Electron paramagnetic resonance (EPR) data	151
8.1.3.5.6	⁵⁷ Fe Nuclear gamma resonance (NGR) data	152
8.1.3.5.7	Pyroelectric and piezoelectric properties	153
8.1.3.5.8	Electron energy loss spectroscopy (EELS)	154
8.1.3.5.9	Optical properties	154
8.1.3.5	Tourmaline family of silicates (Tables)	159
8.1.3.5	Tourmaline family of silicates (Figures)	167
8.1.3.5	Tourmaline family of silicates (References)	180
8.1.3.6	Dioptase and CuGe _{1-x} Si _x O ₃ system (Text)	184
8.1.3.6.1	Crystal structures. Lattice parameters	184
8.1.3.6.2	Magnetic properties	187
8.1.3.6.3	Neutron diffraction data	190
8.1.3.6.4	Nuclear magnetic resonance (NMR) data	191
8.1.3.6.5	Electron paramagnetic resonance (EPR) and antiferromagnetic resonance (AFMR) data	192
8.1.3.6.6	Heat capacity	192
8.1.3.6.7	Optical properties	193
8.1.3.6	Dioptase and CuGe _{1-x} Si _x O ₃ system (Tables)	195
8.1.3.6	Dioptase and CuGe _{1-x} Si _x O ₃ system (Figures)	199
8.1.3.6	Dioptase and CuGe _{1-x} Si _x O ₃ system (References)	216
8.1.3.7	Milarite group of silicates (Text)	218
8.1.3.7.1	Crystal structures. Lattice parameters	218
8.1.3.7.2	Nuclear gamma resonance (NGR) data	222
8.1.3.7.3	Nuclear magnetic resonance (NMR) data	223
8.1.3.7.4	Heat capacity	223
8.1.3.7.5	Optical properties	223
8.1.3.7	Milarite group of silicates (Tables)	225
8.1.3.7	Milarite group of silicates (Figures)	233
8.1.3.7	Milarite group of silicates (References)	239

8.1.3.8	Hyalotekite, hilairite and phosinaite groups of silicates (Text)	241
8.1.3.8.1	Crystal structures. Lattice parameters	241
8.1.3.8.2	Optical properties	243
8.1.3.8	Hyalotekite, hilairite and phosinaite groups of silicates (Tables)	244
8.1.3.8	Hyalotekite, hilairite and phosinaite groups of silicates (Figures)	248
8.1.3.8	Hyalotekite, hilairite and phosinaite groups of silicates (References)	251
	Index of substances for Volume III/27I3	252
	Contents, editor and authors of further subvolumes of III/27	271