

**Appendix A** Cyclosilicate sample information

Sample	Mineral	Locality	Rock type and/or facies and/or mineral assemblage and/or P–T estimates	(References) [Donor]
80192	Beryl	Buckfield, Maine	Var. morganite; Pegmatite; Brl-ms-kfs-qtz	[AMNH]
23215	Beryl		Var. morganite; Pegmatite; Brl-ms	[AMNH]
40597	Beryl	Minas Gerais, Brazil	Var. emerald; Pegmatite; Brl-ms	[AMNH]
1	Beryl	Kunar, Afghanistan	Var. aquamarine; Pegmatite; Brl-ms	[KL]
80145	Beryl	Salzburg, Austria	Var. emerald; Schist; Brl-ms	[AMNH]
WYO-2	Cordierite	Laramie Range, Albany Co., WY, USA	Metasomatic deposit in a metanorite; Crd	(1, 2, 3, 4, 5); [CG]
CL-177-1	Cordierite	Pikwitonei Granulite Domain, MB, Canada	Granulite; Qtz(rt)-plag-kfs-bt-crd-grt-ilm-po-py-sp-zrn; 6.1-6.8 Kb, 648°C	(1, 6); [CG]
Wards	Cordierite	Manitouwadge, ON, Canada	Upper amphibolite; Ged-col-bt-plag-qtz; 6±1 Kb, 650±30°C	(1, 7); [CG]
25 Geco Mine	Cordierite	Geco Mine, Manitouwadge, ON, Canada	Amphibolite; Crd-po-ccp-py-qtz-bt-fsp; 6±1 Kb, 650±30°C	(1, 7, 8, 9); [CG]
NE86A-24b	Cordierite	Sturbridge, MA, USA	Granulite (probably lower temp, in pocket); Qtz-plag-kfs-bt-crd-grt-ged-sill-rt-zrn-opaques; 6.3 Kb, 675-730°C	(1, 10); [CG]
118171	Cordierite	Richmond, NH, USA	Crystals in a quartz matrix from a mica schist; Crd-qtz-tur-rt-(ky)-crn-st-ath	(1, 11); [CG]
80537	Cordierite	Haddam, CT, USA	Crystals in pegmatite “dike” in bt-gneiss; Bt; 580-650°C	(4, 8, 12, 13, 14, 15, 16, 17); [AMNH]
88593	Cordierite	Haddam, CT, USA	Crystals in pegmatite “dike” in bt-gneiss; Crd-qtz-mic-ab-tur-grt-zrn-col-bt-cbrl; 580-650°C	(4, 8, 12, 13, 14, 15, 16, 17); [CG]

**Appendix A** (continued)

26230	Cordierite	Haddam, CT, USA	Crystals in pegmatite "dike" in bt-gneiss; Crd-qtz-mic-ab-tur-grt-zrn-col-bt-cbrl; 580-650°C	(4, 8, 12, 13, 14, 15, 16, 17); [AMNH]
84-264-1	Cordierite	Guilford, CT, USA	Pegmatite vein cutting Schist; Crd-qtz-feld-bt-gneiss	(1, 4); [CG]
H06	Cordierite	El Hoyazo Volcano, SE Spain	Crd xenocryst found as loose material from weathered lava; 5-7 Kb, 850±50°C	(18, 19, 20); [CG]
VS-1	Cordierite	Chiaravalle, Calabria, Italy	Granulite facies; Grt-crd-sill-bt-plag-qtz; 5-6 Kb, 730±20°C	(21); [CG]
10398	Cordierite	Bavaria, Germany	Bt	[AMNH]
TUB-1	Cordierite	Dolní Bory, Czech Republic	Pegmatite; Kfs-ab-qtz-tur-ms-ap-grt	(8, 22, 23, 24, 25); [CG]
43090	Cordierite	Telemark, Norway	Bt	[AMNH]
33294	Cordierite	Telemark, Norway	Bt	[AMNH]
106886	Cordierite	Telemark, Norway	Bjordammen Pegmatite	(14); [CG]
C004	Cordierite	Søndeled, Norway	Quartz pegmatite; Qtz-crd (pinnitized); 3-4 Kb, 500±50°C	(13); [CG]
7114	Cordierite	Sopparjok, Finnmark, Norway	Crd-grt-gneiss	[CG]
26539	Cordierite	Aust-agder, Norway	Crd-grt-bt-gneiss	[CG]
TA-5	Cordierite	Orijärvi, Finland	Orthoamphibole-Gneiss; Qtz-plag-crd-bt-ilm-ath±ged±cum±alm; 3Kb, 550-600°C	(3, 26, 27); [CG]
89 V	Cordierite	Ivalojoki-Inarijärvi, Finland	Antexite; Qtz-kfs-plag-grt-crd-bt-sill-ilm-py-po-zrn-sp; 8.1 Kb, 855-861°C	(28); [CG]
I3	Cordierite	Airport Ivalo, Finland	Kfs-qtz-crd-grt-plag-bt-sill-rut-zrn; 6.2-7.2 Kb, 760-830°C	(28); [CG]

**Appendix A** (continued)

G-155a	Cordierite	Muzkol Complex, East Pamir, Tajikistan	Pegmatoid isolations in epidote-amphibolite facies	(29); [CG]
S. India 1	Cordierite	Kerala; Khondatite belt, India	Amphibolite-Granulite Trans; Plag-crd-grt-sill-spl; 5-6 Kbar, 750°C	(1, 30); [CG]
42/IA	Cordierite	Kiranur, South India	Granulite facies; Sapp-ged-crd-sill-sp-crn-bt-plag; 7±.4 Kb, 740±40°C	(25, 31); [CG]
129875	Cordierite	Manik Ganga, Sri Lanka	Single crystal, granulite facies; Grt-crd-bt-kfs-plag-qtz; 5.2-5.9 Kb, 730°C	(32, 33); [CG]
CTSiM	Cordierite	Tsihombe, South Madagascar		[CG]
C006	Cordierite	Madagascar	Gemstone, single crystal peg; Crd	[CG]
X-1	Cordierite	Reynolds Range, Australia	Quartz-cordierite granofels; Qtz-crd; 4-5 Kb, 750-800°C	(1); [CG]

Mineral abbreviations: albite (ab), almandine (alm), andalusite (and), anthophyllite (anth), apatite (ap), beryl (brl), biotite (bt), chalcopyrite (ccp), chrysoberyl (cbrl), columbite (col), cordierite (crd), corundum (crn), cummingtonite (cum), garnet (grt), feldspar (fds), gedrite (ged), ilmenite (ilm), K-feldspar (kfs), kyanite (ky), microcline (mic), muscovite (ms), plagioclase (plag), pyrite (py), pyrrhotite (po), quartz (qtz), rutile (rt), sapphirine (sapp), sillimanite (sill), spinel (sp), staurolite (st), tourmaline (tur), zircon (zrn).

Literature: (1) Vry et al. (1990), (2) Newhouse and Hagener (1949), (3) Iiyima (1960), (4) Leake (1960), (5) Barker (1962), (6) Mezger et al. (unpublished manuscript), (7) Pan and Fleet (1995), (8) Goldman et al. (1977), (9) James et al. (1978), (10) Robinson et al. (1986), (11) Robinson and Jaffe (1969), (12) Heinrich (1950), (13) Miyashiro (1957), (14) Newton (1966), (15) Povondra and Cech (1978), (16) Armbruster and Irouschek (1983), (17) Armbruster (1986), (18) Cesare et al. (1997), (19) Cesare (2000), (20) Cesare et al. (2007), (21) Schenk (1989), (22) Cerny et al. (1997), (23) Stanek and Miskovsky (1964), (24) Hochella et al. (1979), (25) Geiger et al. (2000), (26) Visser and Senior (1991), (27) Schneiderman and Tracy (1991), (28) Hörmann et al. (1980), (29) Stolpovskaya et al. (1998), (30) Chacko et al. (1987), (31) Lal et al. (1984), (32) Dahanayake (1980), (33) Malcherek et al., (2001)

Donors: [AMNH] – American Museum of Natural History, [KL] – Kristin Lazzeri [CG] – Charles Geiger

## APPENDIX A REFERENCES CITED

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