

Table S3: Full EPMA standard list

Full Standard List								
Ref. Num.	Mineral/ Composition	Manufacturer Information	Ref. Num.	Mineral/ Composition	Manufacturer Information	Ref. Num.	Mineral/ Composition	Manufacturer Information
501	Albite	Astimex	608	Vanadium	Astimex metal	815	Tm metal	Astimex REE block
502	Almandine Garnet	Astimex	616	Niobium	Astimex metal	816	Y metal	Astimex REE block
504	Apatite	Astimex	619	Scandium	Astimex metal	817	Yb metal	Astimex REE block
513	Celestite	Astimex	627	Pb Glass	NIST	1100	Lanthanum Phosphate	Smithsonian REEPO4 std
520	Crocoite	Astimex	628	Rare Earth Glass Standard	Drake and Weill glasses	1101	Cerium Phosphate	Smithsonian REEPO4 std
530	Marcasite	Astimex	629	Huttonite (ThSiO ₄)	DAS	1102	Praseodymium Phosphate	Smithsonian REEPO4 std
535	Plagioclase	Astimex	631	UO ₂	DAS	1103	Neodymium Phosphate	Smithsonian REEPO4 std
541	Sanidine	Astimex	632	La Glass	University Edinburgh	1104	Samarium Phosphate	Smithsonian REEPO4 std
545	45 Tugtupite (Na ₄ BeAlSi ₄ O ₁₂ Cl)	Astimex	633	Ce Glass	University Edinburgh	1105	Europium Phosphate	Smithsonian REEPO4 std
551	51 Yttrium Al Garnet (Y ₃ Al ₅ O ₁₂)	Astimex	634	Gd Glass	University Edinburgh	1106	Gadolinium Phosphate	Smithsonian REEPO4 std
554	Barite	P&H	635	Sm Glass	University Edinburgh	1107	Terbium Phosphate	Smithsonian REEPO4 std
556	Chalcopyrite	P&H	636	Nd Glass	University Edinburgh	1108	Dysprosium Phosphate	Smithsonian REEPO4 std
557	Rhodonite	P&H	637	Pr Glass	University Edinburgh	1109	Holmium Phosphate	Smithsonian REEPO4 std
558	Wollastonite	P&H	638	Y ₂ O ₃	University Edinburgh	1110	Erbium Phosphate	Smithsonian REEPO4 std
559	Rutile	P&H	739	CaWO ₄	Taylor Block	1111	Thulium Phosphate	Smithsonian REEPO4 std
560	Silver Telluride	P&H	740	GaP	Taylor Block	1112	Ytterbium Phosphate	Smithsonian REEPO4 std
562	Gallium Arsenide	P&H	804	Dy metal	Astimex REE block	1115	Yttrium Phosphate	Smithsonian REEPO4 std
568	Guajuvate Bi ₂ Se ₃ Synthetic	P&H	805	Er metal	Astimex REE block	1116	Scandium Phosphate	Smithsonian REEPO4 std
596	Tungsten	Astimex metal	806	EuF ₃	Astimex REE block	2001	Apatite	Astimex Apatite
599	Zirconium	Astimex metal	808	Ho metal	Astimex REE block	2002	Apatite	P&H
601	Tantalum	Astimex metal	814	Tb metal	Astimex REE block			