|  |  |  |  |
| --- | --- | --- | --- |
| **Supplementary Data.** Tourmaline Samples used in this Study. Sample collection of Dutrow (contact for more information). | | | |
| Country | Region | Sample | Number of Spectra |
| Pelitic Metamorphic Rocks (n=18): | |  |  |
| Afghanistan | Badakhshan | AF-BAD-2 | 8 |
| Czech Republic | Nedvědice | CZ-97-2-3 | 1 |
| United States | Maine | D172 | 1 |
| United States | Maine | D179a | 1 |
| United States | Maine | D193 | 1 |
| United States | Maine | D202 | 1 |
| United States | Maine | D217 | 1 |
| United States | Maine | D242a | 2 |
| United States | Maine | D194 | 1 |
| United States | Maine | D245 | 1 |
|  |  |  |  |
| Li-rich Pegmatites (n=35): | |  |  |
| Brazil | Minas Gerais, Chia | BZ-CH-1 | 1 |
| Brazil | Minas Gerais, Chia | BZ-CH-2 | 1 |
| Brazil | Minas Gerais, Cruzeiro | BZ-CRZ-1 | 1 |
| Brazil | Minas Gerais, Cruzeiro | BZ-CRZ-2 | 1 |
| Brazil | Minas Gerais, Intinga | BZ-BA-1 | 1 |
| Brazil | Minas Gerais, Ponto de Prani | BZ-PDP-1 | 1 |
| Brazil | Minas Gerais, Santa Clara | BZ-SC-1 | 1 |
| Brazil | Minas Gerais, Umbuzeiro | BZ-UM-1 | 1 |
| Brazil | Minas Gerais, Umbuzeiro | BZ-UM-2 | 1 |
| Czech Republic | Rožná | CZ-97-1-3a | 1 |
| Czech Republic | Bližná | CZ-97-4-1a | 1 |
| Burma | Malo | BUR-MALO-1 | 1 |
| Burma | Malo | BUR-MALO-2 | 1 |
| Burma | Malo | BUR-MALO-3 | 1 |
| Italy | Elba | ELBA-1 | 1 |
| Italy | Elba | ELBA-2 | 2 |
| Madagascar | Anjanabonoina | MAD-1 (core) | 1 |
| Madagascar | Anjanabonoina | MAD-1 (rim) | 1 |
| Pakistan | Stak Nala | STNL-1 | 2 |
| Pakistan | Stak Nala | STNL-2 | 2 |
| Pakistan | Stak Nala | STNL-3 | 1 |
| Pakistan | Stak Nala | STNL-4 | 2 |
| Pakistan | Stak Nala | STNL-6 | 5 |
| United States | Oceanview, Pala, California | PALA-OC-1 | 2 |
| United States | Oceanview, Pala, California | PALA-OC-2 | 2 |
|  |  |  |  |
| Calcareous Metamorphic Rocks (n=34): | |  |  |
| Brazil | Brumado | BZ-BR-1UV | 4 |
| Brazil | Brumado | BZ-BR-3UV | 10 |
| Brazil | Brumado | BZ-BR-5DV | 1 |
| Brazil | Brumado | BZ-BR-7DV | 13 |
| Brazil | Brumado | BZ-BR-8UR | 4 |
| Brazil | Brumado | BA-BR-9DV | 2 |
|  |  |  |  |
| Li-poor Pegmatites and silicic igneous rocks (n=50): | | | |
| Brazil | Minas Gerais, Escondido | BZ-ES-1 | 1 |
| Brazil | Minas Gerais, Galilea | BZ-GA-1 | 1 |
| Czech Republic | Lavičky (silicic igneous) | CZ-97-6-1 | 1 |
| Czech Republic | Lavičky (silicic igneous) | CA-97-6-3 | 1 |
| Namibia | Erongo | NAM-ERGO-2 | 10 |
| Pakistan | Northern Territories | PAK-NT-1 | 4 |
| United States | Black Hills, South Dakota | BH-10a | 2 |
| United States | Black Hills, South Dakota | BH-10b | 20 |
| United States | Black Hills, South Dakota | DV2-E1 | 10 |
|  |  |  |  |
| Hydrothermal (n=52): | |  |  |
| Australia | Yinnietharra, Western Australia | AUS-1 | 1 |
| Bolivia | Potosi | BOL-POT-1 | 5 |
| Czech Republic | Kníničky | CZ-97-3-2a | 2 |
| United States | Black Mountain, Death Valley, California | CA-K8-B2 | 10 |
| United States | Black Mountain, Death Valley, California | CA-SB-5-87 | 10 |
| United States | Buena Vista Hills, Nevada | NV-BV-1 | 10 |
| United States | Lincoln Hills, Nevada | NV-LH-1 | 10 |
| United States | Manzano Mountains, New Mexico | NM-MM1 | 3 |
| United States | Manzano Mountains, New Mexico | NM-MM2 | 1 |