TABLE S3: Tentative assignments of the major Raman bands for monazite-(Ce) samples.

|  |  |  |  |
| --- | --- | --- | --- |
| Bands (cm-1) | | Symmetry | Assignment |
| regular monazite-(Ce) | S-rich monazite-(Ce) |  |  |
| 968, 991 | 973, 1009 | Ag/Bg | PO4-symmetric stretching |
| 1056 | 1074 | Ag/Bg | PO4-antisymmetric stretching |