

LIST OF TABLES

Table	Page
1. The Lanthanide Elements and Their Atomic Numbers	1
2. Summary of Crystal Forms of Known Rare Earth Diantimonides	18
3. Densities of Rare Earth Diantimonides	38
4. Summary of Crystal Forms of Rare Earth Sesquisulfides	43
5. Lattice Parameters of Rare Earth Diantimonides	48
6. Cell Parameters of Rare Earth Sesquisulfides	49
7. Sb-Sb Bond Lengths	52
8. Pressure Calibration Data	58
9. Temperature Calibration Data	69
10. X Ray Diffraction Data and Indexing of LaSb ₂ Type Rare Earth Diantimonides	78
11. X Ray Diffraction Data and Indexing of High Pressure Orthorhombic Rare Earth Diantimonides	80
12. X Ray Diffraction Data and Indexing of Cubic Rare Earth Sesquisulfides	84