

LIST OF TABLES

- 2.1 Lattice parameter data for $x = 0.3$ and $t = 0$
- 2.2 Lattice parameter data for $x = 0.3$ and $t = 0.05$
- 2.3 Lattice parameter data for $x = 0.3$ and $t = 0.1$
- 2.4 Lattice parameter data for $x = 0.3$ and $t = 0.2$
- 2.5 Lattice parameter data for $x = 0.2$ and $t = 0.05$
- 2.6 Lattice parameter data for $x = 0.3$ and $t = 0.05$
- 2.7 Lattice parameter data for $x = 0.4$ and $t = 0.05$
- 2.8 Lattice parameter data for $x = 0.6$ and $t = 0.05$
- 2.9 Data on bond length and site radii for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 2.10 Data on bond length and site radii for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 2.11 Data on x-ray density, actual density and porosity for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 2.12 Data on x-ray density, actual density and porosity for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 2.13 Data on lattice vibration frequencies for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 2.14 Data on lattice vibration frequencies for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 3.1 Data on activation energy and Curie temperature for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 3.2 Data on activation energy and Curie temperature for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 4.1 Data on saturation magnetization and magnetic moment at room temperature for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 4.2 Data on saturation magnetization and magnetic moment at room temperature for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 4.3 Data on anisotropy constant K_1 and temperature factor T_F for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$

- 4.3 Data on anisotropy constant K_1 and temperature factor T_F for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$
- 4.5 Data on Curie temperature for $x = 0.3$ and $t = 0.0, 0.05, 0.1, 0.2$
- 4.6 Data on Curie temperature for $t = 0.05$ and $x = 0.2, 0.3, 0.4, 0.6$