
LIST OF TABLES

Table No.	Title	Page No.
Table 3.1	Structural parameters of $\text{Fe}_{0.05}(\text{Te})_{1-x}\text{Sb}_x$ calculated from XRD data.	48
Table 3.2	Band gap values of $\text{Fe}_{0.05}(\text{Te})_{1-x}\text{Sb}_x$ samples along with the corresponding error.	51
Table 3.3	Values of Activation energy (E_a) in the high temperature region from SPH model fitting.	58
Table 3.4	Values of Mott's temperature (T_0) in the corresponding temperature ranges.	63
Table 4.1	Lattice parameter and Crystallite size values of $\text{Fe}_{0.05}(\text{SnSe})_{1-x}\text{Sb}_x$ from the XRD data.	89
Table 4.2	Direct and indirect band gap values of $\text{Fe}_{0.05}(\text{SnSe})_{1-x}\text{Sb}_x$ samples.	90
Table 4.3	Fitting parameters for $\text{Fe}_{0.05}(\text{SnSe})_{1-x}\text{Sb}_x$; $x = 0.03$ sample.	96
Table 4.4	Fitting parameters for $\text{Fe}_{0.05}(\text{SnSe})_{1-x}\text{Sb}_x$; $x = 0.05$ sample.	96
Table 4.5	Coercivity and Magnetization Saturation values of $\text{Fe}_{0.05}(\text{SnSe})_{1-x}\text{Sb}_x$ samples.	103
Table 5.1	Structural parameters calculated from XRD data.	114
Table 5.2	Direct band gap values deduced from FTIR spectrum.	118
Table 5.3	Fitting parameters for $\text{Fe}_{0.05}(\text{SnTe})_{1-x}\text{Sb}_x$; $x = 0$ sample.	124
Table 5.4	Fitting parameters for $\text{Fe}_{0.05}(\text{SnTe})_{1-x}\text{Sb}_x$; $x = 0.01$ sample.	126

Table 5.5	Activation energy (E_a) values from SPH model fitting to the high temperature region.	129
Table 5.6	Mott's temperature (T_0) derived from VRH model fitting to the low temperature region.	131
Table 5.7	Comparison of coercivity values of samples measured at different temperatures.	141