

Figure 1: Tauc plot for Fe-doped [100]  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>, E//b

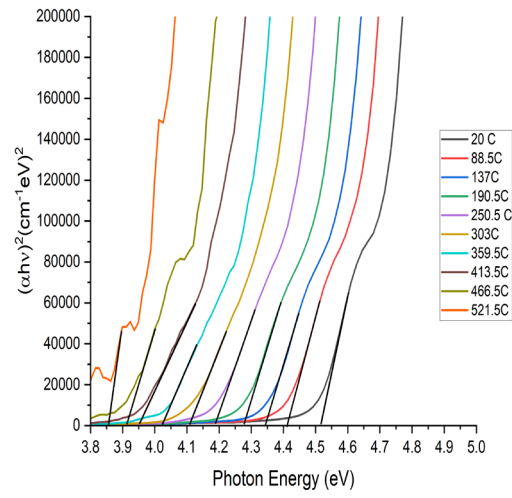


Figure 2: Tauc plot for Fe-doped [100]  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>, E//c

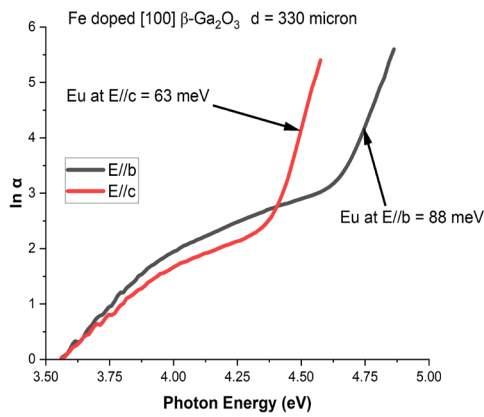


Figure 3: Urbach Energy for Fe-doped [100]  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>

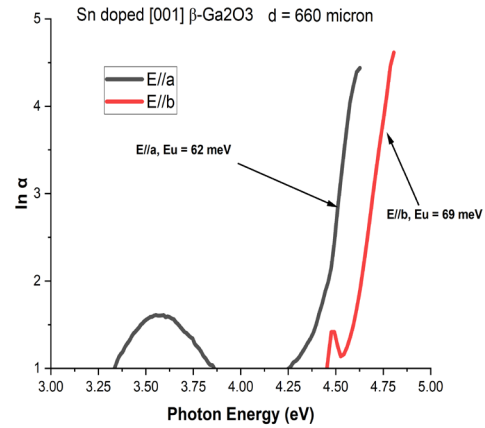


Figure 4: Urbach Energy for Sn-doped [001]  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>

Table 1: Urbach Energy for different doping and crystallographic direction in  $\beta$ -Ga<sub>2</sub>O<sub>3</sub>

Crystal Orientation	Urbach Energy ( $E_u$ )
Fe-doped [100], E//b	88 meV
Fe-doped [100], E//c	63 meV
Sn doped [001], E//a	62 meV
Sn doped [001], E//b	69 meV