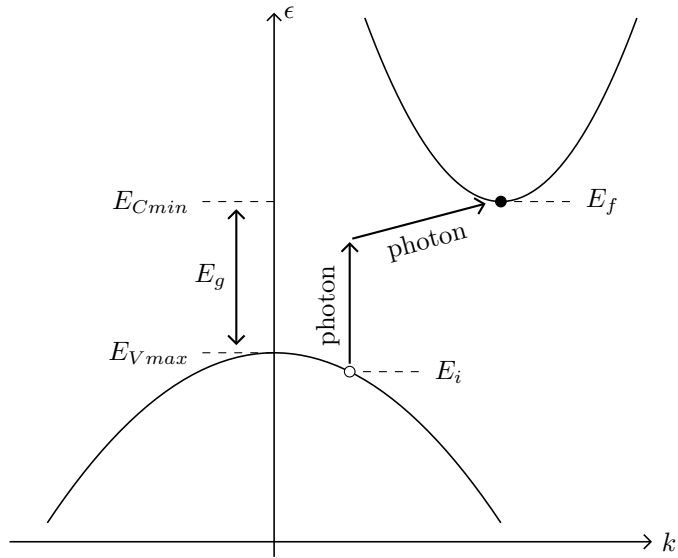
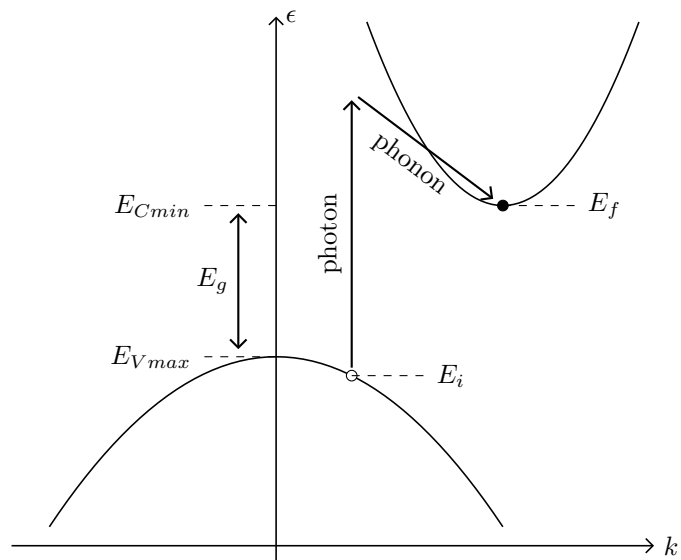


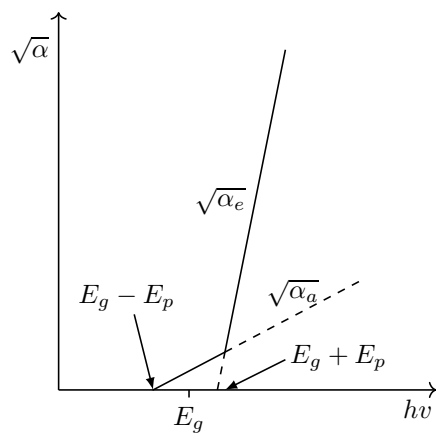
**Figure 1:** Direct Bandgap Complete



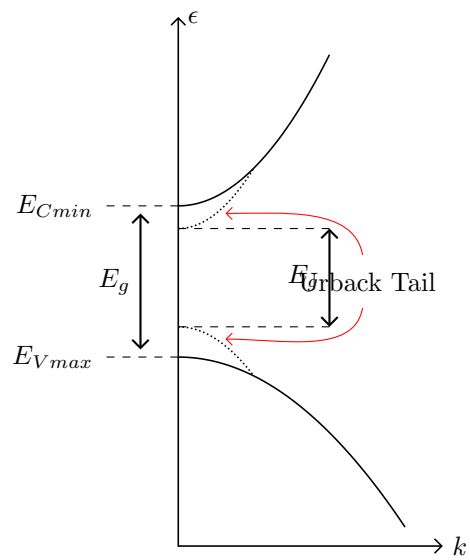
**Figure 2:** Indirect Bandgap Phonon Absorption



**Figure 3:** Indirect Bandgap Phonon Absorption



**Figure 4:** Axis



**Figure 5:** Urbach Tail