

Piero Pianetta Quals Questions 2015

Consider two semiconductors with different band gaps. What happens to their respective band diagrams when you put them together? What properties are you considering in your analysis?

Now put a metal contact on the side with the larger band gap. What happens? Now apply a voltage, what happens?

What is the difference between the case of an undoped large band gap semiconductor and the case where the larger bandgap semiconductor is replaced by an insulator?