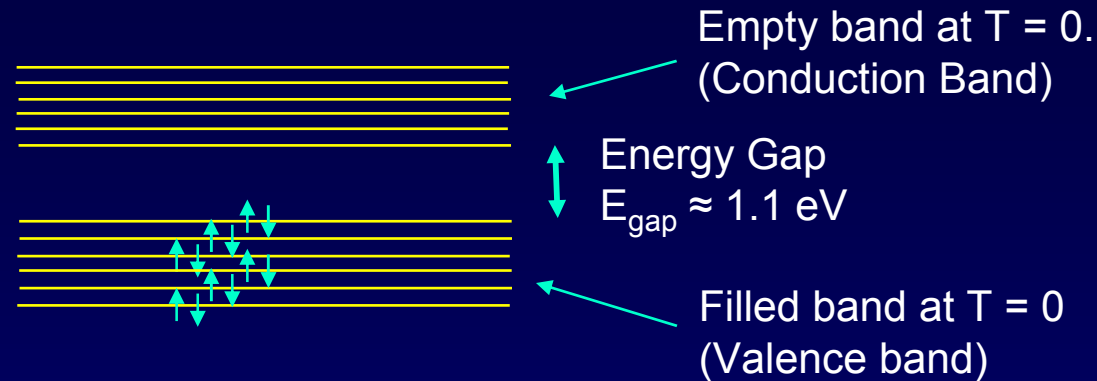


Semiconductors



The electrons in a filled band cannot contribute to conduction, because with reasonable E fields they cannot be promoted to a higher kinetic energy. Therefore, at $T = 0$, pure semiconductors are actually insulators.