



Solid State Electronics – Unit 2: PN Junctions and Diodes

Commonly Used Doping Elements

Trivalent Impurities

- To make p-type
- Aluminum (Al)
- Gallium (Ga)
- Boron (B)
- Indium (In)

Pentavalent Impurities

- To make n-type
- Phosphorus (P)
- Arsenic (As)
- Antimony (Sb)
- Bismuth (Bi)





**Multi-State
Advanced Manufacturing
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US DOL SPONSORED TAACCCT GRANT: TC23767
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RELEASE DATE 3/18/2016
VERSION v 001
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