

N-TYPE SEMICONDUCTOR

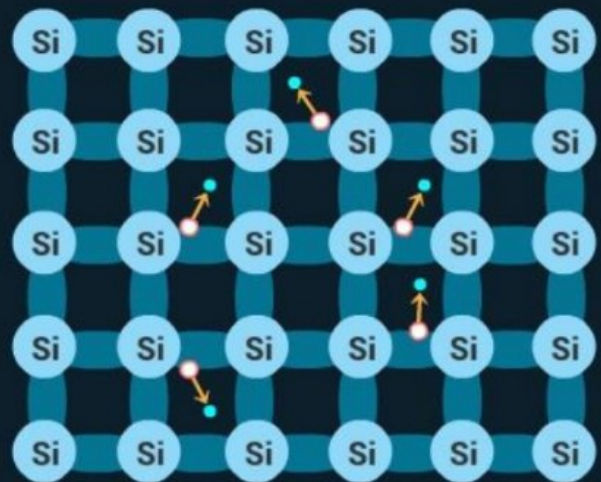
P-TYPE

SEMICONDUCTOR

A periodic table with the elements of the 4th group (IVA) highlighted in pink. The groups are labeled IIIA, IVA, VA, VIA, VIIA, and VIIIA. The elements in the 4th group are: B, C, N, O, F, He (top row); Al, Si, P, S, Cl, Ar (second row); Ga, Ge, As, Se, Br, Kr (third row); In, Sn, Sb, Te, I, Xe (fourth row); and Tl, Pb, Bi, Po, At, Rn (bottom row).

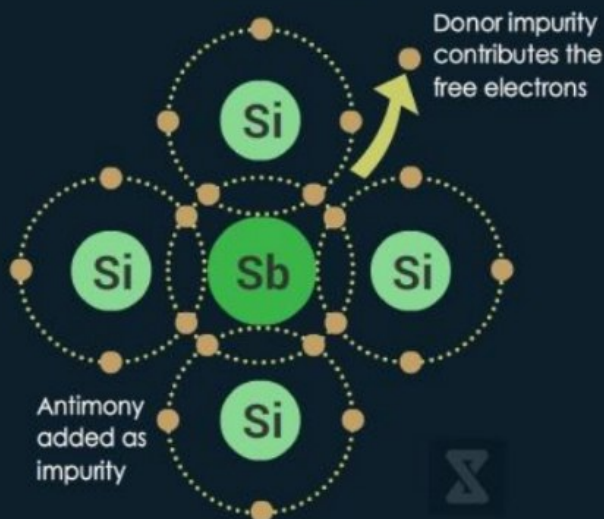
The elements of 4th group of the periodic table are called semiconductors.
Eg: Germanium, Silicon, etc.

INTRINSIC SEMICONDUCTOR



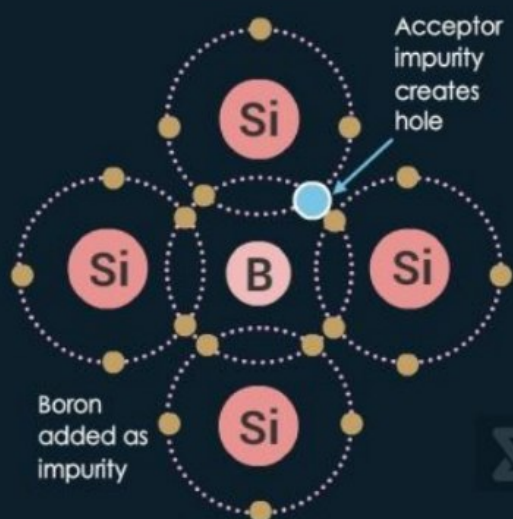
Pure semiconductor is called intrinsic semiconductor.

N-Type



When impurity of 5th group is added in an intrinsic semiconductor, then N-type semiconductor is formed.

P-Type



When impurity of 3rd group is added in an intrinsic semiconductor, then P-type semiconductor is formed.