ION IMPLANTATION GASES

Many materials have been used in the ion implantation process. Gases shown below are those which have developed routine usage as this technology evolved.

Specifications

GAS or MIXTURE/ SPECIFICATIONS	CYLINDER SIZE	CONTENT	PRESSURE	CGA
Arsenic Pentafluoride Electronic, 98% min	7X	50g	228 psig	660
Arsine VLSI, 99.9999% min	7X 4X	30g 800g	205 psig 205 psig	350 350
10% or 15% Arsine balance Hydrogen	7X 4X	24L 120L	800 psig 800 psig	350 350
Boron Trichloride VLSI, 99.999% min	7X 4X	454g 800g	4.4 psig 4.4 psig	660 660
Boron Trifluoride ULSI, 99.999% min	7X 4X	200g 800g	1300 psig 1200 psig	330 330
Boron-11 Trifluoride B-11 (wt% > 99.8%)	7X	70g	800 psig	330
Phopshine ULSI, 99.9999% min	7X 4X	30g 400g	593 psig 593 psig	350 350
10% or 15% Phosphine balance Hydrogen	7X 4X	24L 120L	800 psig 800 psig	350 350
Phosphorous Pentafluoride Electronic, 99% min	7X	47g	290 psig	330
Silicon Tetrafluoride Electronic, 99.99% min	7X	105g	800 psig	330