^{72}Ge in the form of Germanium Tetrafluoride Gas GeF4

Description

Enriched Germanium Tetrafluoride gas is used as preamorphic implant to prevent silicon wafer from implant dopant channeling. Furthermore, it is used to strain silicon wafer which optimizes the performance and speed of the device.

Isotopic Abundance:

Item		70Ge	72Ge	73Ge	74Ge	76Ge
Abundance (%)	GC-MS (±0.5)	8.78	65.02	12.81	13.37	0.02

RGA Analysis

Component Analysis	Specification	Detect Limit	Units	Analysis Method
GeF4 Purity	≥99.99	/	% by Volume	GC-MS
72Ge	≥55%	0.0001	AT%	GC-MS
O2	≤25	0.1	ppmv	GC-MS
N2	≤25	0.1	ppmv	GC-MS
CO2	≤25	0.1	ppmv	GC-MS
SO2	≤25	0.1	ppmv	GC-MS
HF	≤25	0.1	ppmv	GC-MS
Ar	≤25	0.1	ppmv	GC-MS

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