PLASMA CHEMICAL REACTOR WITH CONTROLLABLE ION ENERGY

Areas of Application

The device is designed
for precision processing
of micro- and nanoelectronics,
UHF and computing appliances

Specification

Controllable ion energy ranges
from 20 to 800 eV. Can process plates
with a diameter up to 200 mm.
Anisotropic etching rate, μ/min:
Si — 0.7; W — 0.2; Au — 0.03; Al — 0.4;
SiO_2 — 0.2; SiC — 0.15; Ti — 1.0;
Pt — 0.015; Ge — 4.0; GaAs — 0.1;
$Si3N_4$ — 0.2; TiN — 0.2; GaN — 0.07.
Isotropic etching rate, μ/min:
GaAs — 0.5; one Si plate — 3.
Operating pressure ranges
from 10^{-3} to 10^{-1} mm Hg.
Etching anisotropy — 10.
Etching unevenness — ±5 %.
Magnetic field strength: 20—200 E

Advantages

The device has no counterparts.
A technology for plasma chemical etching
of the majority of materials used
in various microcircuits and chips,
including silicon carbide and gallium nitride,
and other nano- and microstructures
has been developed

Stage of Development. Suggestions for Commercialization

IRL6, TRL6
Manufactured, delivered,
and serviced within the warranty period,
upon request

IPR Protection

IPR1

Contact Information

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