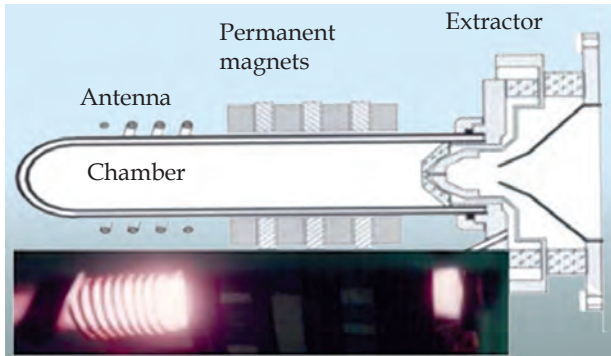
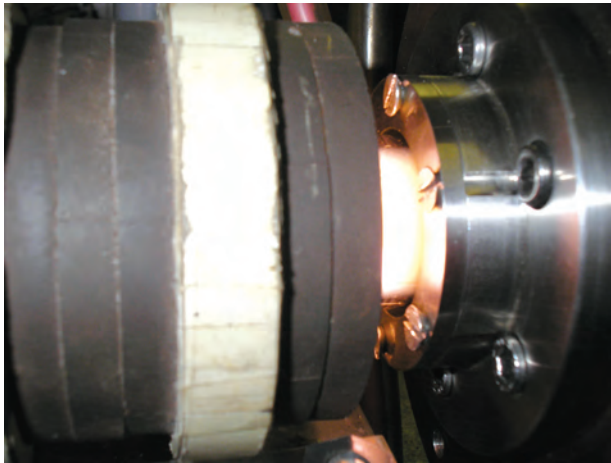


HELICON ION SOURCE



Helicon ion source configuration scheme



Helicon ion source

Areas of Application

The product is to be used in plasma technology for nano- and micro-analytical analyzers, and mass spectrometers with inductively coupled plasma

Specification

Compact plasma generators with magnetic systems on permanent magnets have been developed.

Type of beam ions:	H ⁺ , He ⁺ , Ar ⁺
Beam brightness, A/m ² · rad ² · eV	300
Plasma concentration, cm ⁻³	n ~ 10 ¹³
Operating gas pressure, mTorr	10
RF power consumption, W	<300

Advantages

The ion sources consume ten times less power under the same parameters of ion current, as compared with the existing analogs. High plasma density in the source is reached due to the creation of effective RF discharge enhanced by external magnetic field

IPR Protection

IPR3

Stage of Development.

Suggestions for Commercialization

IRL5, TRL4

Single-piece manufacture and maintenance, upon request

Contact Information

Oleksii I. Voroshilo, Institute of Applied Physics of the NAS of Ukraine;
+38 054 222 46 08, +38 054 222 27 94, e-mail: voroshilo@ipfcentr.sumy.ua