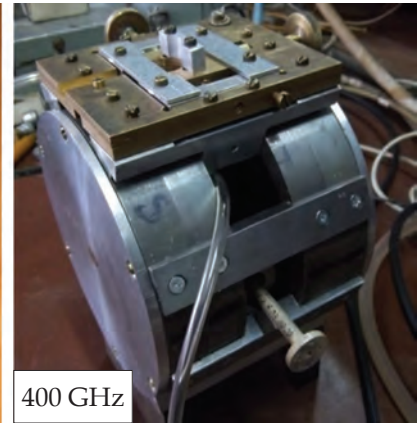
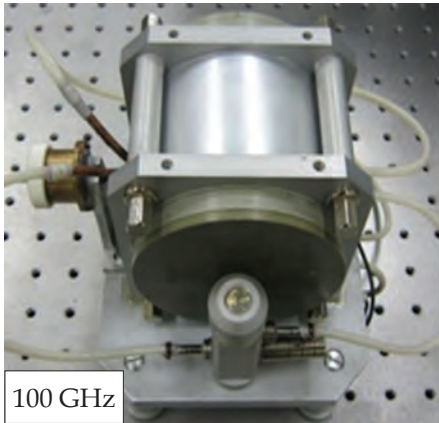


CLYNOTRONS AS SOURCES OF CONTINUOUS ELECTROMAGNETIC RADIATION IN MILLIMETER AND SUBMILLIMETER RANGES



Clynotrons operating on various frequencies

Specification

Operating wave, mm	Anode voltage, kV	Anode current, mA	Operating magnetic field, T	Output power, W
8–9	2–3	120–180	0.35	10–30
2–3	2–4	120–140	0.45	3–10
0.8–0.9	4–5	130	0.85	0.4–0.6
0.5–0.6	5–6	120	1.10	0.1

Areas of Application

Medicine and biology.
Radio and telecommunication

Advantages

As compared with the conventional O-type BWT, the clynotrons provide a significant (by an order) gain in the output power and a wideband frequency tuning – from several per cent to the central frequency. The clynotrons operate in millimeter and submillimeter ranges, reach an output power of about 30 W in the 8-mm range and several ten/hundred milliwatts in the submillimeter range

Stage of Development. Suggestions for Commercialization

IRL6, TRL5
Manufactured and tested in customer operational environment as an integral part of extensive technological infrastructure

IPR Protection

IPR1, IPR2

Contact Information

Yurii F. Logvinov, O.Ya. Usikov Institute for Radiophysics and Electronics of the NAS of Ukraine; +38 057 315 20 09, e-mail: logvinov@ire.kharkov.ua