INSTITUTE of RADIOPHYSICS and ELECTRONICS NAS of UKRAINE

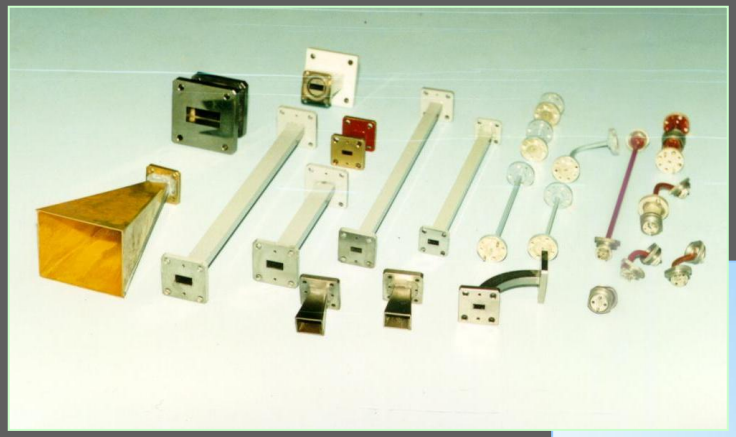
Part 4

Radiospectroscopy Department

2016

Scientific-Technological sector

Waveguide components



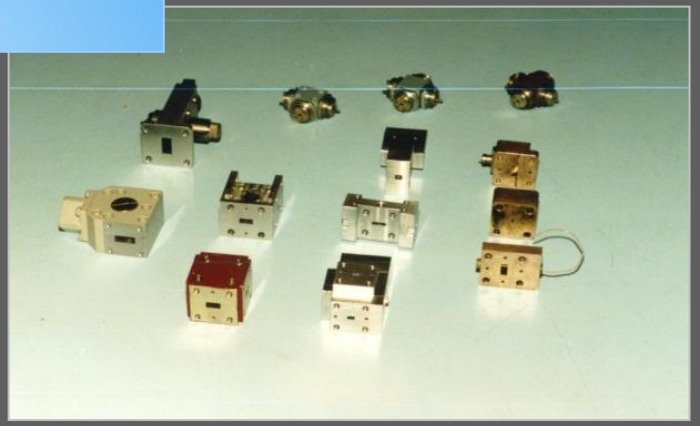
Rigid Waveguide Sections, Horn antennas

Frequency band 37.5 - 178.4 GHz
(mm and Inch standard)

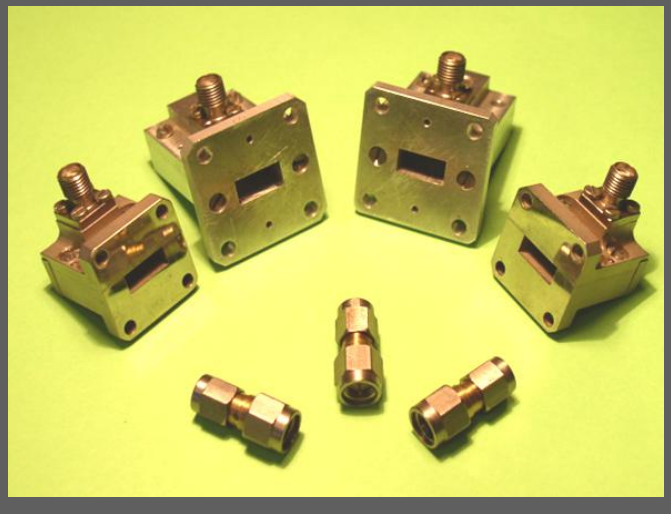
Directional coupler:

Frequency band 26.5 - 118.1 GHz
(mm and Inch standard)

Circulators, Isolators:
Frequency band 26.5 - 37.5GHz
Operating range 2 - 3 GHz
(mm and Inch standard)



Adopters for microwave band

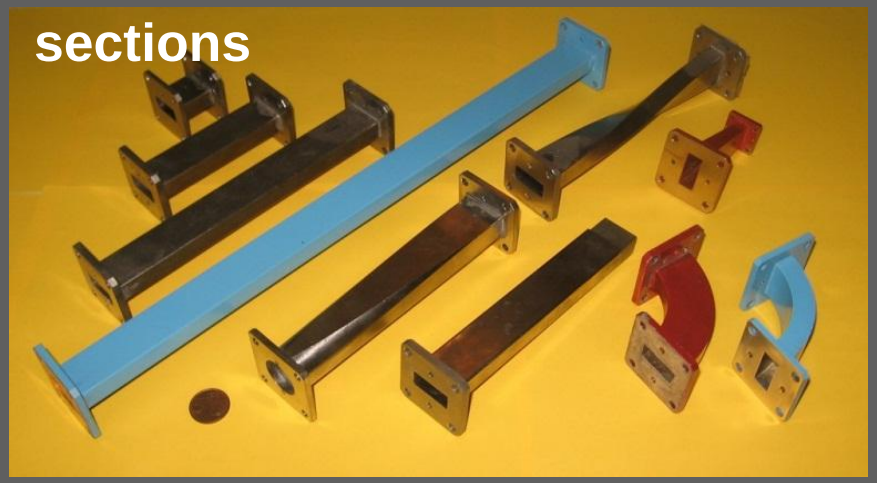


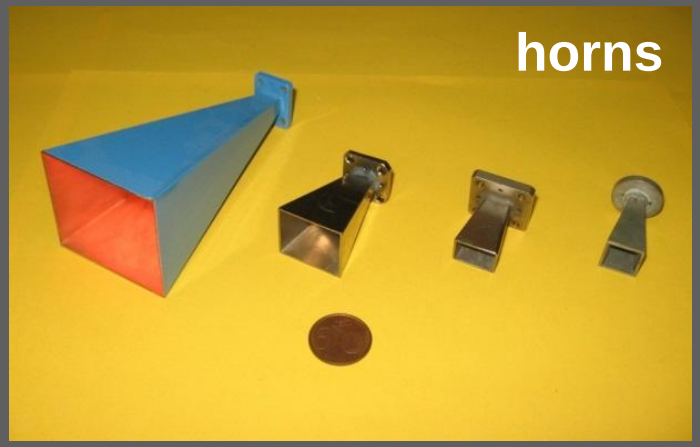
Waveguide-coaxial adopters – 10GHz, 20GHz, 40GHz

Microwave coaxial connectors

Waveguide elements 9-150 GHz. Technology and fabrication

mm and inch standards





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Dielectric resonators and elements 20-150 GHz

Quartz, sapphire, ferrite etc

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Wavemeters, attenuators, circulators, phase shifters 10-150 GHz

mm and inch standard

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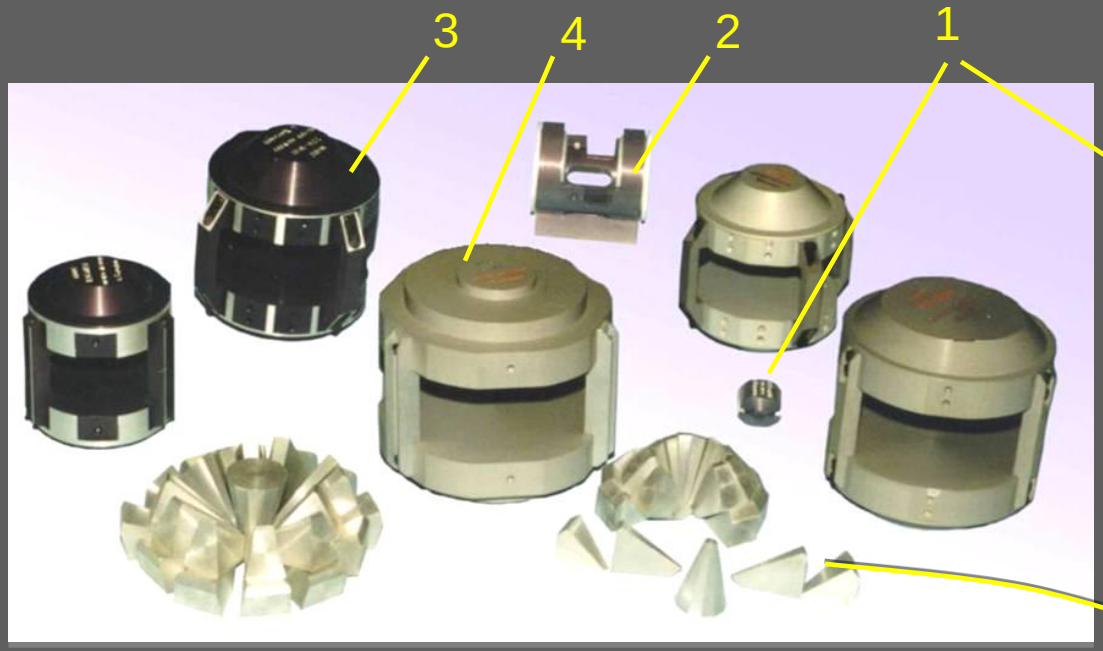
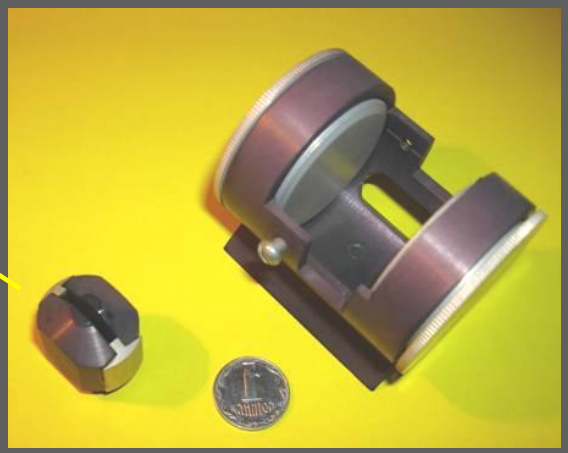
Magnetic Systems





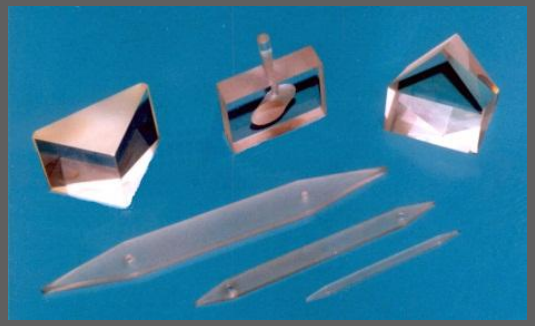
#	Field, T	Mass, kg	Size, mm	Gap between poles, mm
1	0.42	0.02	16 20	4
2	0.42	0.9	66 85	31
3	0.83	5.5	120 124	30
4	1.1	12.0	132 164	30

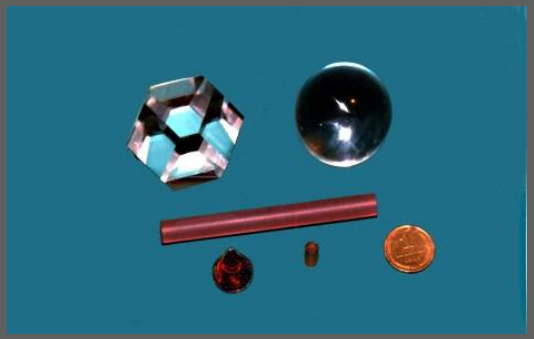
Small-sized magnetic systems (MS). Special spatial configuration of H-field.

Applications: microwave electronic devices, magnetic spectroscopy etc..

Design: SmCo-type magnets.

Microwave optics

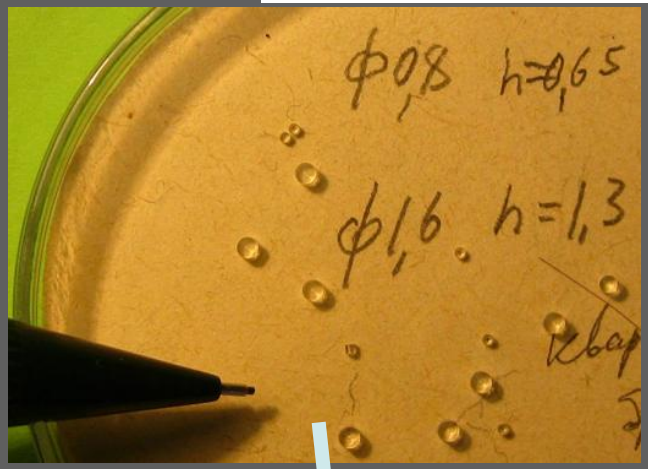




Microwave elements (special):
plates; dielectric disk-, ring-, sphere- shaped resonators;
dielectric waveguides; beamguides; elements for microwave devices.
Materials: sapphire, ruby, quartz, ferrites, ceramics, semiconductors etc..

Dielectric disk-, ring-, sphere- shaped resonators

Quartz ring resonators

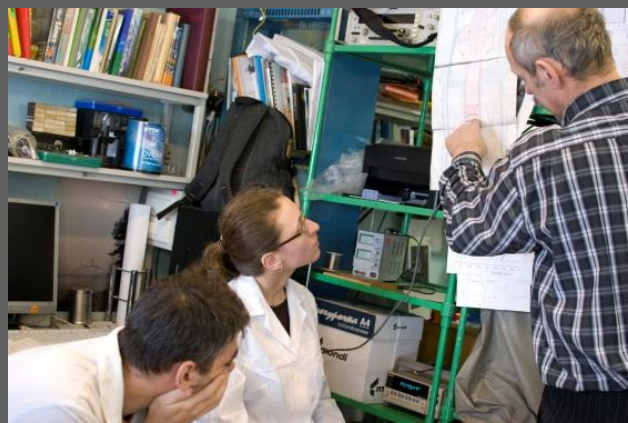


Ferrite disk resonators

You can find some selected papers of our Department

on its website

Experiment: Microwaves. Low temperatures



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