

Current status of the compact 2.45 GHz ECR Ion Source at FLNR JINR

This paper describes recent results obtained with a compact 2.45 GHz ECR Ion Source at the ECR ion sources test bench. The source was tested for production of helium and hydrogen ions with different configurations of UHF coupler, UHF power and frequency. At the extraction voltage about of 10 kV and UHF power about of 100 W more than 500 μA of He⁺ ions were produced with the extraction hole of 3 mm in diameter, that corresponds to the current density of 7.5 mA/cm². The future possible upgrades of the ion source are also discussed.

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