

**The Hollow Cathode Gun for an Electron Cooling Device**\*, G. CIULLO, INFN-LNL; N.S. DIKANSKY, V.V. PARKHOMCHUCK, A.N. SHARAPA, A.V. SHEMYAKIN, BINP; L. TECCHIO, INFN-LNL

- Characteristics of an electron beam, generated by a hollow cathode gun in a cusp magnetic field are investigated. Measurements are carried out at a prototype of an electron cooling device without toroids, elaborated in a framework of CRYSTAL Storage Ring project. It is shown, that properties of such a beam are appropriate for an electron cooling purpose. Also technical solution of different parts of the prototype and its electric scheme are described.

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