

PROTOTYPE OF THE HIGH VOLTAGE SECTION FOR THE 2 MEV ELECTRON COOLER AT COSY

A. D. Goncharov, Ya. G. Kruchkov, V. V. Parkhomchuk, V. B. Reva, D. N. Skorobogatov, BINP SB RAS, Novosibirsk
J. Dietrich, FZJ, Jülich

Abstract

The design, construction and installation of a 2 MeV electron cooling system for COSY-Jülich is proposed to further boost the luminosity even with strong heating effects of high-density internal targets. In addition the 2 MeV electron cooler for COSY is intended to test some new features of the high energy electron cooler for HESR at FAIR/GSI. The design of the 2 MeV electron cooler will be accomplished in cooperation with the Budker Institute of Nuclear Physics in Novosibirsk, Russia. The design and first experiments of a new developed prototype of the high voltage section, consisting of a gas turbine, magnetic coils and high voltage generator with electronics is reported.

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