

1.03. PROJECT OF VEPP-2000 ELECTRON-POSITRON COLLIDER

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Budker Institute of Nuclear Physics started a construction of new storage ring VEPP-2000 with the energy of colliding electron- positron beams up to 2 GeV. The paper describes the machine magnetic system which includes four 13 T superconducting solenoids providing so-called round beams optics conditions. Specific requirements of chromaticity corrections and a dynamical aperture of the machine are discussed. Results of computer simulations show, that the luminosity of the collider can reach $1 \cdot 10^{32} \text{ cm}^{-2} \text{ sec}^{-1}$.

1.04. TEST OF 300 MeV LINAC - PREINJECTOR FOR VEPP-5

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300 MeV linac - VEPP-5 preinjector is developed and tested. The linac consists of 5 accelerating sections with 2856 MHz operating frequency that are supplied with two 5045 klystrons via SLED system. Electron energy up to 310 MeV is reached.

ИСПЫТАНИЯ 300 МэВ-го ЛИНАКА - ФОРИНЖЕКТОРА ВЭПП-5

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300МэВ-ый линак - форинжектор ВЭПП-5 собран и испытан. Линак состоит из 5 ускоряющих секций на частоте 2856МГц, запитанных от клистронов 5045 производства SLAC с использованием системы умножения мощности SLED. Достигнута энергия электронов до 310МэВ.

1.05. ACCELERATOR "FAKEL" RNC "KURCHATOV INSTITUTE": APPLIED NUCLEAR-PHYSICS INVESTIGATIONS AND MODERN STATE

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Modern state of nuclear-physics facility of linear electron accelerator "Fakel" is summarized and possible future application is analyzed. The accelerator is the convenient tool for applied investigations based both on photonuclear reactions and on neutron capture reactions. Series of actual experiments were carried out at the facility. Next directions should be accented among others: transmutation doping of semiconductors (silicon, diamond), medical isotope production (iodine-123, USLR of oxygen-15, USLR and SLR of nitrogen, carbon, fluorine, cobalt, strontium), neutron-capture therapy, gamma-activation analysis, radiation polymer modification, sterilization of medical products and agents.

