**High Intensity Heavy Ion Injector**, V. GOLUBEV, S. NIKIFOROV, M. SVININ, G. VORONIN, NIIEFA - The newly developed 10 mA, 50 keV heavy ion injector is intended for use in isotope separators, ion implanters as well as autonomously for researches in the physics and technology of ion sources. The injector includes modified Freeman ion source with four-electrode metal-ceramic accel/decel system, vacuum chamber with movable Faraday cup, and also power supply, control, vacuum and cooling systems. Design of the ion source allows use both gases, liquid and solid working substances. The discharge chamber is made from molybdenum. Four-electrode accel/decel system provides a possibility for extracting voltage control at a fixed ion energy at the injector output. The extracting electrode configuration provides compensation of the ion source magnetic field effect on beam deflection. The power supply system is based on use of 20 kHz inverters. Optical/electronic converters with fibre optic cables are used in control system for ion source power supply system control. Brief description of the injector and its performance when extracting of various ion species are given.