

Development of High Current Polarized H- Ion Sources at TRIUMF, G. DUTTO, C.D.P. LEVY, G.W. WIGHT, *A.N. ZELENSKI, TRIUMF; V. KLENOV, INR Moscow; V.I. DAVYDENKO, I.I. MOROZOV, BINP Novosibirsk - The KEK optically pumped polarized H- ion source (OPPIS) has been transferred to TRIUMF, where it is being upgraded in current and polarization for eventual use at RHIC. The goal of the upgrade is to provide a 1.5 mA DC beam of H- ions with a pulsed polarization of ~80% in 100 microsec pulses at a repetition rate of up to 10 Hz. In parallel, a very high intensity pulsed source is being developed for use at HERA. The goal in that case is peak currents of at least 10 mA with 80% polarization. Peak current of 30 mA unpolarized has been demonstrated. In both projects, polarization will be provided by pulsed laser optical pumping. We describe the mode of operation of both sources and report on the latest progress.

* And INR Moscow