

**A Lattice Design of NIRS Small-Sized Ring for Heavy Ions,** K. OHTOMO, Y. SASAKI, S. SHIBUYA, SHI; T. MURAKAMI, K. NODA, S. YAMADA, NIRS - A small-sized ring for heavy ions has been proposed and designed a lattice functions in NIRS [1]. The features of the lattice are as follows; 1) The circumference is less than 25 m because available space is restricted. 2) Double bend achromatic lattice is adopted for efficient beam cooling by an electron cooler. 3) A super-periodicity is chosen to 1 while the ring is 2-fold symmetry, because different beta-function is required for the injection/extraction section and the cooling one in the ring. This paper reports an optimization of the lattice parameters, estimations of dynamic aperture and closed orbit distortion.

[1] K. Noda et al., HIMAC-Report, HIMAC-017, 1997.