

Abstract Submitted  
for the MAR13 Meeting of  
The American Physical Society

**Design study of the Low Energy Beam Transport system at RISP<sup>1</sup>**  
JUNGBAE BAHNG, EUNSAN KIM, YONGHWAN KIM, IN-SEOK HONG,  
Kyungpook Nat'l Univ. — We present the design status of LEBT for the RISP  
that consists of two 90 degree dipoles, a multi-harmonic buncher, pair solenoids,  
electrostatic quadrupoles and a high voltage platform. After ECR-IS with an en-  
ergy of 10 keV/u, heavy-ion beams are selected by achromatic bending systems and  
then be bunched in the LEBT. A multi-harmonic buncher is used to achieve a small  
longitudinal emittance in the RFQ. We show the results on the optics design by  
using the TRANSPORT code and the beam tracking of two-charge beams by using  
the code IMPACT. We present the results and issues on beam dynamics simulaitons  
in the designed LEBT system.

<sup>1</sup>For heavy ion beams in the low energy system, we have to separate and select desire  
beam. we also transport beam from ECR to RFQ with high transmission.

Jungbae Bahng  
Kyungpook Nat'l Univ.

Date submitted: 12 Dec 2012

Electronic form version 1.4