RIBF ULIC Symposium/Mini-WS Report

Report date	**March 28, 2016**

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Workshop reference number	**RIBF-ULIC Mini-WS034**
Title	**Measurements of Reaction & Charge Changing Cross Sections for Ni Isotopes and Related Topics**
Date	**March 11, 2016**
Venue	**RIBF Building Room 401, RIKEN Nishina Center**
Language	**Japanese**
Workshop website	**https://indico2.riken.jp/event/2171/**
Contact Person(s) (Name, Affiliation)	**Mitsunori Fukuda, Osaka Univ., Daiki Nishimura, Tokyo Univ. of Science**

Summary of discussions and its (expected) results

In connection with the neutron-skin study through reaction cross sections, actual experimental problems and things to be prepared were discussed. Also on the method to deduce neutron skin thickness, several important points were discussed including theoretical points of view as follows.

+ Outline of the Ni experiment (M. Fukuda)
+ Detector and DAQ developments for Ni experiment (D. Nishimura)
+ Charge changing cross sections and proton distribution radii (T. Yamaguchi)
+ New methods to access neutron skin through reaction cross sections (W. Horiuchi)
+ Analysis of Ni exp. data and neutron skin, deformation, and CCCS (M. Fukuda)
+ Reaction cross sections and momentum distributions for 13,14,15B (M. Tanaka)
+ Nuclear structure theories - low energy E1 excitations and neutron skin - (S. Ebata)
+ General conditions for halo formation and nuclear deformations (S. Watanabe)

In these discussions, it was quite valuable that theorists pointed out many interesting points of views that we experimentalists do not usually recognize. We made a confirmation of collaborative researches between experimental and theoretical groups related to reaction cross section measurements.