

# RIBF ULIC Symposium/mini-WS Report

\* English only

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|--|---|----------------|--|
| Title                                    | [RIBF-ULIC-miniWS015] Alpha cluster structure on unstable nuclei revealed by newly constructed SAMURAI spectrometer                       |                |  |
| Date                                     | April 19, 2012  |                |  |
| Place                                    | Nishina Center RIBF Building Room 203   |                |  |
| Language                                 | [ v ] English   | [ v ] Japanese |  |
| HP address                               | <a href="http://indico.riken.jp/indico/conferenceDisplay.py?confId=749">http://indico.riken.jp/indico/conferenceDisplay.py?confId=749</a> |                |  |
| Contact Person(s)<br>(Name, Affiliation) | Makoto Ito(Kansai Univ.), Masaaki Kimura (Hokkaido Univ.), Yasutaka Taniguchi (RNC) , and Hideaki Otsu (RNC)                              |                |  |

|   |         |        |     |
|---|---------|--------|-----|
|   | Total : | 87,231 | JPY |
| [Breakdown] Travel expense and Accommodation fee              |         |        |     |
| Ito Masatoshi: 20,860JPY                                      |         |        |     |
| Kawabata Takahiro: 30,460JPY                                  |         |        |     |
| Suhara Tadahiro: 3,480JPY                                     |         |        |     |
| Kimura Masaaki: 32,431JPY                                     |         |        |     |
| Co-hosting / any financial support from other organization(s) |         |        |     |

## Summary of discussions and its (expected) results:

Various cluster structures represented by alpha cluster are known to reveal on the excitation state of the p-shell nuclei around light stable nuclei.

Recently, research of the unstable p-shell nuclei progresses, and it becomes clear that combination of the alpha core cluster and excess neutrons forms a molecular orbital or an atomic orbital. In the unstable nuclei around the sd shell, it is expected that more various cluster structure is revealed since the flexibility and combination of a cluster and excess neutrons increases. Such efforts are now on-going and experimental results are expected.

Completion of a SAMURAI spectrometer construction enables us to measure the cluster decay of an excitation state over a broad momentum range.

Based on such a situation, this workshop was performed aiming at discussing perspective of the cluster structure studies made until now to near future and scoping research direction especially on collaborative work between experimental and theoretical efforts on unstable nuclei beyond the sd shell region.

Discussions on this workshop were very fruitful for sharing the theoretical works until now and possible experimental work done in near future.

Participants list(Name, Affiliation):

(Attached as a PDF file)

Please attach other documents as needed.

## Participant List