独立行政法人理化学研究所　仁科加速器研究センター
第74回RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 74th RIBF Nuclear Physics Seminar

Unified studies of structures and reactions in light neutron-rich nuclei ---Present analysis of ^{10,12}Be and future perspectives---

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In light neutron excess systems, various deformed structures are discussed from the viewpoints of the clustering aspects. In particular, much efforts have been devoted to the investigation of molecular structures in Be isotopes. Theoretically, molecular orbital (MO) model with π and σ orbitals around two α cores, which are associated with covalent bonds in molecular physics, succeeded in describing the low-lying states of these isotopes.

In the present seminar, I will show the unified studies of exotic structures in the highly-excited states of ^{10,12}Be and reaction dynamics induced by the α+^{6,8}He slow scattering.

As an introductory talk, I will also show a brief review of some elementary and general aspects of clustering phenomena established in light N=Z systems.

Feb. 17(Tue), 2009　14:45--
RIBF Conf. Hall, RIKEN

The seminar will be given in English.

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