

[RIBF-ULIC-Symposium-003] Further understanding of 'Island of Inversion'  
via nuclear moments and inelastic reactions.

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## Shape coexistence/mixing in Mg isotopes

*Monday, 20 December 2010 15:00 (30 minutes)*

Properties of the low-lying states in magnesium isotopes around the island of inversion are studied using the five-dimensional quadrupole collective Hamiltonian constructed with the microscopic theory of large-amplitude collective motion.

Shape dynamics with changing the neutron number and angular momentum in the yrast bands are discussed.

The properties of the experimental observables such as the  $0_2^+$  states,  $2_2^+$  states, excited rotational bands, electric transitions between yrast and excited bands, and quadrupole moments are also discussed in relation with the shape coexistence/mixing dynamics.

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