

国立研究開発法人理化学研究所 に科加速器科学研究センター 第303回 RIBF核物理セミナー RIKEN Nishina Center for Accelerator Based Science The 303rd RIBF Nuclear Physics Seminar

Erosion of N = 28 shell gap, shape coexistence and monopole transitions in the vicinity of 44S

Prof. Masaaki Kimura (Chief Scientist, Nuclear Many-body Theory Lab. RNC)

In this study, we discuss the disappearance of the neutron magic number 28 and the subsequent shape coexistence in neutron-rich isotones, 40Mg, 42Si and 44S.

Numerical calculations by antisymmetrized molecular dynamics have shown that the O+ states with different nuclear shapes coexist within small excitation energies. It has been found for the first time that the mixing ratios differ among the isotones, and that it is strongly reflected in the monopole transition strengths.

Jan. 18th(Tue), 2022 13:30 ~ via Zoom Meeting System



* The talk will be given in English language. *Contact: Nuclear Physics Seminar Organizing Committee npsoc@ribf.riken.jp http://ribf.riken.jp/~seminar/*