Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Medium to high spin spectroscopy of A = 30 - 40 neutron-rich nuclei at JAEA TSUNEYASU MORIKAWA, Kyushu University, EIJI IDEGUCHI, SHINSUKE OTA, CNS, University of Tokyo, MASUMI OSHIMA, MITSUO KOIZUMI, YOSUKE TOH, ATSUSHI KIMURA, HIDEO HARADA, KAZUYOSHI FURUTAKA, SHOJI NAKAMURA, FUMITO KITATANI, YUICHI HATSUKAWA, TOSHIYUKI SHIZUMA, Japan Atomic Energy Agency, MASAHIKO SUGAWARA, Chiba Institute of Technology, HIROARI MIYATAKE, YUTAKA WATANABE, YOSHIKAZU HIRAYAMA, KEK, HIDESHIGE KUSAKARI, Chiba University — Motivated by the recent progress in the RI-beam physics and the discovery of the island of inversion, a systematic investigation of the medium to high spin excited states in neutron-rich A = 30 $\sim$ 40 region has been underway as a cooperative study at the JAEA tandem accelerator facility. Since the evolution of shell structure is a function of nuclear deformation and rotation as well as the isospin, systematic understanding of the levels in this neutron-rich region is of great interest. Especially, the systematic identification of the high-spin levels involving the sd to fp cross-shell excitation could be a key to clarify the evolution of N = 20 neutron shell gap. We will present recent results on some neutron rich nuclei in this mass region and disscuss their shell structure.

Tsuneyasu Morikawa
Kyushu University

Date submitted: 01 Jul 2009 Electronic form version 1.4