独立行政法人理化学研究所　仁科加速器研究センター
第58回RIBF核物理セミナー
RIKEN Nishina Center for Accelerator Based Science
The 58th RIBF Nuclear Physics Seminar

陽子ー中性子相互作用と高スピンアイソマー

小川 建吾 氏　(重イオンン核物理研究室)

Two-body matrix elements of the residual nucleon-nucleon interaction　can be extracted from the energy spectra of double-magic ± two-nucleon nuclei like Ca-42 or Sc-42. Effective proton-neutron interaction deduced above shows characteristic property such as attractive monopole interaction and strong quadrupole interaction, which is a great contract to the interaction between identical particles. Role of the effective proton-neutron interaction is discussed with emphasis on appearance of high-spin isomers in nuclei.

Seminar includes the following contents

(1) Two-body matrix elements of residual nucleon-nucleon interaction
  (i) Interaction between identical particles
  (ii) proton-neutron interaction
(2) Role of the proton-neutron interaction
  (i) monopole interaction and single-particle energies
  (ii) quadrupole interaction and collective motion
(3) High spin isomers
  (i) classification of isomers
  (ii) proton-neutron interaction and spin gap isomer
(4) High spin isomers in nuclei near drip-line

Mar. 11 (Tue), 2008　13:30-
RIBF Conf. Hall,　RIKEN

The seminar will be given in Japanese

Contact: RIBF Nuclear Physics Seminar Organizer
npsoc@ribf.riken.jp
http://ribf. riken.jp/~seminar