



独立行政法人理化学研究所 仁科加速器研究センター  
第91回RIBF核物理セミナー

RIKEN Nishina Center for Accelerator Based Science  
The 91st RIBF Nuclear Physics Seminar

## Spectroscopy of $^{32}\text{Ne}$ and the "Island of Inversion"

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The first excited state of  $^{32}\text{Ne}$  was recently identified at the RIBF during the DayOne experimental campaign in December 2008. A single gamma-ray transition with an energy of 722(9) keV was observed in inelastic scattering of  $^{32}\text{Ne}$  on a Carbon target as well after single-neutron removal from  $^{33}\text{Na}$ , both at beam energies near 230 MeV/u. We assign this gamma-ray to the transition from the first excited 2+ state of  $^{32}\text{Ne}$  to its ground state. A comparison of the rather low transition energy to state-of-the-art shell model calculations demonstrates that the "Island of Inversion" extends to at east N=22 for the Ne isotopes.

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Nishina Hall, RIKEN

*The seminar will be given in English.*

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