



独立行政法人理化学研究所 原子核グループ
第12回RIBF核物理セミナー
RIKEN Nuclear Physics Group
The 12th RIBF Nuclear Physics Seminar

Spectroscopy and nucleon correlation studies using intermediate energy one- and two- nucleon removal reactions

Prof. Jeffrey A. Tostevin
(Univ. of Surrey, U.K.)

Abstract

Both one-nucleon and two-proton (neutron) removal reactions from fast, secondary neutron-rich (deficient) nuclear beams are expected to proceed as sudden, direct reactions. This talk will review the methodology, approximations, sensitivities, and status of single-nucleon knockout calculations. The results that are now emerging from analyses on a wide range of symmetric and very asymmetric (A , Z) systems with different nucleon separation energies will be discussed.

Both the stripping (absorption) and diffractive (breakup) contributions to two-nucleon removal cross sections can also be calculated, taking full account of the two-nucleon configurations and correlations included within the shell-model calculations, by using eikonal reaction theory. Recent applications to data will be discussed together with the deduced two-nucleon spectroscopic strengths emerging from the data that are available so far.

Feb. 14 (Tue), 2006 13:30-
Conference Hall, RIBF Bldg. 2F

The seminar will be given in English

Contact: seminar@rarf.riken.jp
<http://rarfexp.riken.jp/~seminar>