



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Contribution ID: 44

Type: **Oral Presentation**

Linking nuclear masses with nucleon separation energies

Friday, 13 July 2012 08:00 (20 minutes)

Abstract content
 (Max 300 words)

With the growing interest in masses of nuclei near the drip lines, and especially for those beyond the drip lines, we take a survey of mirror systems near the drip lines, where one of the mirror pair is unbound. Two methods are followed by which their masses may be determined: investigating the separation energies of the mirror nuclei, as well as considering trends in the relative energies of the isobaric ground states. As an example, we use both methods to estimate the mass of the nucleus ^{17}Na , and its energy relative to the $p+^{16}\text{Ne}$ threshold.

Apply to be
 consider for a student
 award (Yes / No)?

No

Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?

Yes

Primary author: Prof. KARATAGLIDIS, Steven (University of Johannesburg)

Co-authors: Mr VAN DER KNIJFF, Dirk (University of Melbourne, Australia); Prof. SVENNE, Juris (University of Manitoba, Canada); Prof. AMOS, Ken (University of Melbourne, Australia); Prof. CANTON, Luciano (University of Padova, Italy); Dr FRASER, Paul (University of Padova, Italy)

Presenter: Prof. KARATAGLIDIS, Steven (University of Johannesburg)

Session Classification: NPRP

Track Classification: Track B - Nuclear, Particle and Radiation Physics