Contribution ID: **16** Type: **not specified**

Coulomb Excitation of Neutron-rich Isotopes around A˜140

Wednesday 14 February 2007 10:10 (20 minutes)

Recent studies on isotopes around the shell closure at N=82 have shown that despite decreasing excitation energy $E(2_1^+)$ the B(E2;$0_1^+ \rightarrow 2_1^+$) = B(E2↑) values for Te and Sn isotopes above N=82 are lower than
expected from a general systematics established as “Grodzins’ rule”. The aim of the experiment IS411 is to measure
the B(E2↑) values of neutron-rich even-even nuclei in the mass region of $A \approx 140$.
As a continuation of our experimental campaigns in 2004 and 2005, where the $2_1^+ \rightarrow 0_{g.s.}^+$ gamma transitions following Coulomb excitation of ^{122,124}Cd and ^{138,140,142}Xe beams have been measured with the gamma detector array MINIBALL, in 2006 we measured the respective transitions in ^{144}Xe and ^{124,126}Cd.
We show preliminary results on B(E2↑) values of ^{144}Xe and ^{126}Cd for the first time. Perspectives for future
experiments will be discussed.
This work was supported by BMBF 06MT238 and RII3-EURONS (506065).

Author: Mr BEHRENS, Thomas (Physics Department E12, TU München)

Presenter: Mr BEHRENS, Thomas (Physics Department E12, TU München)

Session Classification: Physics 3