## Nuclei in the Cosmos - IX



Contribution ID: 116 Type: Oral contribution

## Neutron capture measurements on the s-process termination isotopes lead and bismuth

Friday 30 June 2006 10:15 (20 minutes)

Resonance cross sections relevant for the termination of the s-process reaction path have been determined for 204,206,207Pb and 209Bi at the CERN neutron time-of-flight spectrometer n\_TOF. The measurements were carried out in the neutron energy range from 1 eV up to 500 keV. By using a system of C6D6-detectors with optimized neutron sensitivity, the main corrections of previous measurements related to neutron scattered backgrounds could be practically eliminated. Other corrections were thoroughly treated by control measurements with additional samples for determination of the ambient background and of background from in-beam g-rays as well as by detailed analyses via Monte Carlo simulations. The final resonance parameters of the four isotopes and the Maxwellian averaged cross sections will be reported and their implications for the s-process abundance contributions in the Pb/Bi region will be discussed.

• This work has been partially supported by the EC (contract FIKW-CT-200000107) and by the National Institutions partners in the n\_TOF Collaboration.

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**Session Classification:** 14 Experiments in nuclear astrophysics IV

**Track Classification:** Experiments in nuclear astrophysics