

Lifetime measurements in ^{128}Xe using the Coulex-plunger technique in inverse kinematics.

A. Lagoyannis, T. Konstantinopoulos, S. Harissopoulos
*Institute of Nuclear Physics, National Centre for Scientific Research “Demokritos”,
153.10 Aghia Paraskevi, Athens, Greece.*

A. Dewald, W. Rother, G. Ilie
Institut für Kernphysik, Universität zu Köln, Zùlpicherstr. 77, D-50937 Köln, Germany.

R. Julin, T. Grahn, P. Greenlees, P. Jones, P. Rahkila
Department of Physics, University of Jyväskylä, P.O.Box 35, 40014 Jyväskylä, Finland

D.L. Balabanski
INRNE, Sofia, Bulgaria

The lifetimes of the lowest collective yrast and non-yrast states in ^{128}Xe were measured in a Coulomb excitation experiment using the recoil-distance method (RDM) in inverse kinematics. Hereby, the Cologne plunger apparatus was employed together with the JU-ROGAM spectrometer. Excited states in ^{128}Xe were populated via projectile Coulomb excitation in inverse kinematics, i.e. by using a ^{128}Xe beam impinging on a ^{nat}Fe target with $E(^{128}\text{Xe}) \approx 525$ MeV. Recoils were detected by means of a ring of solar cells placed at forward angles. Recoil-gated γ spectra were measured at different plunger distances. The main goal of this experiment was to check the E(5) dynamical symmetry character of ^{128}Xe . Preliminary results will be presented.