HAW14-2014-000637

Abstract for an Invited Paper for the HAW14 Meeting of the American Physical Society

Particle-gamma measurements around the Coulomb barrier

STEVEN PAIN, Oak Ridge National Laboratory

Reactions performed around Coulomb barrier energies have contributed significantly to our foundation of nuclear structure knowledge over the decades, being highly selective probes of specific components of the nuclear wave function. In particular, such reactions can be used as probes of single-particle structure, pairing and collective structure, etc. Many of these reactions are more recently being revisited, but employed in inverse kinematics to study reactions using radioactive beams. In this effort, the addition of gamma-ray detection is becoming increasingly recognized as crucial to fully exploiting such measurements, and in some cases is critical to the experimental approach. An brief overview of techniques and some state of the art measurements will be presented. Work supported in part by the US Department of Energy.