α,γ) **Reaction Experiments**

Abstract Submitted
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Modification of the Microchannel Plate (MCP) Detectors for the Recoil Mass Separator St. George for the Improvement of Particle Identification in ([1] E-LEXUS THORNTON, A.P HANNER, JERRY HINNEFELD, Indiana University South Bend, LUIS MORALES, University of Notre Dame, R.T SOUZA, Indiana University Bloomington, MANOEL COUDER, University of Notre Dame — The Recoil Mass Separator St George in Notre Dame's Nuclear Science Laboratory (NSL) is being used for the study of low energy (α,γ) reactions using inverse kinematics to better understand the helium burning processes in stars. The St. George detector system uses two MCP detectors and a silicon strip detector to measure time of flight and energy, respectively, of ions reaching the end of the device. To improve the time resolution of the MCP detectors and to add position sensitivity, we modified the circuitry of both MCP detectors and added a segmented anode with readout via two delay lines. Details of the modifications and initial results showing the effects on time resolution and the added position information will be presented.

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