

Abstract Submitted
for the DAMOP08 Meeting of
The American Physical Society

Fine structure measurements of high-L Rydberg states of H₂.
ETERI SVANIDZE, SPENCER JOHNSON, ERICA SNOW, SUNY Fredonia —
Measurement of the fine structure pattern of high-angular momentum Rydberg states provides information about the basic properties of the ion core, such as the polarizability. Recently a resonant excitation Stark ionization spectroscopy (RESIS) apparatus has been constructed at the SUNY Fredonia campus. A Doppler-tuned CO₂ laser resonantly excites transitions in a fast molecular beam, which are detected by Stark ionization. We report here our experimental progress in the fine structure measurements of high-L Rydberg states of the ground vibrational state of molecular hydrogen.

Erica Snow
SUNY Fredonia

Date submitted: 01 Feb 2008

Electronic form version 1.4