

Abstract Submitted  
for the Meeting of  
The American Physical Society

Sorting Category: 27 (Theoretical)

**Electron capture in  $\alpha+H_2^+$  collisions** S.C. CHENG, B.D. ESRY, Department of Physics, Kansas State University, Kansas 66506<sup>1</sup>  
— We present results for the ion-molecular ion collision  $\alpha+H_2^+$ . In particular, we obtain the probability for impact dissociation via electron capture at relatively low collision energies. We apply the semi-classical impact parameter approximation with fixed nuclei and solve the resulting three-dimensional time-dependent electronic Schrödinger equation with grid methods. From the calculated capture probability, we derive the angular distribution of protons for comparison with experiment.

<sup>1</sup>Supported by the Chemical Sciences, Geosciences, and Biosciences Division, Office of Basic Energy Sciences, Office of Science, U.S. Department of Energy

Prefer Oral Session  
 Prefer Poster Session

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Date submitted: February 8, 2002

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