

Abstract Submitted  
for the GEC10 Meeting of  
The American Physical Society

**Positron Interactions with Atoms and Molecules**<sup>1</sup> J. SULLIVAN, C. MAKOCHEKANWA, A. JONES, J. MACHACEK, P. CARADONNA, W. TATTERSALL, S. BUCKMAN, CAMS, Australian National University, Canberra — We present a range of new experimental results for low energy positron interactions with a number of different atomic and molecular systems. These experimental studies involve the rare gases He-Xe and H<sub>2</sub>O and include measurements of total scattering, total elastic scattering, electronic excitation, ionization and positronium formation. In addition to absolute cross section measurements for these processes we have investigated several interesting features that emerge in the cross sections and which appear to be Wigner cusps which arise as a result of strong channel coupling. The experimental techniques that are used will be discussed, along with the measured cross sections.

<sup>1</sup>Supported by the Australian Research Council.

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Date submitted: 10 Jun 2010

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