

Abstract Submitted  
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**Positron Scattering from the Noble Gases**<sup>1</sup> C. MAKOCHEKANWA, J. MACHACEK, A. JONES, P. CARADONNA, R. MCEACHRAN, J. SULLIVAN, S. BUCKMAN, CAMS, Australian National University, Canberra — Studies of low energy (0.5 - 60 eV), high resolution (60 meV), positron scattering from atoms have been carried out at the Australian National University. A series of measurements of positron scattering from noble gas targets has been made as part of a program to establish benchmark cross section values for positron scattering. Here we present some recent measurements of positron scattering from the rare gas atoms, including benchmark total scattering, positronium formation and elastic differential cross sections, and measurements of Wigner cusps in the elastic channel at the Ps threshold. We will present examples of trends observed in a number of these scattering processes in He, Ne, Ar, Kr and Xe. Comparison of the present results with the best available theoretical calculations, and other experimental data from the literature will also be made.

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