Abstract Submitted for the GEC12 Meeting of The American Physical Society

Positron scattering from helium¹ ROISIN BOADLE, JOSHUA MACHACEK, EMMA ANDERSON, PETER CARADONNA, CASTEN MAKOCHEKANWA, ADRIC JONES, JAMES SULLIVAN, STEPHEN BUCKMAN, CAMS, Australian National University, Canberra — We present new measurements of positron scattering cross sections for helium, including total scattering, total elastic and total inelastic cross sections, which have been extended up to energies of 180eV. We also present a range of low energy elastic differential cross sections. The measurements were performed using our high-resolution, Surko trapbased positron beamline with a typical energy resolution of ~50meV. Comparisons will be made with previous experimental results and with up to date theoretical predictions.

¹This work is supported by the ARC.

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Date submitted: 15 Jun 2012

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