

Abstract Submitted
for the GEC13 Meeting of
The American Physical Society

Rearrangement processes in low-energy positron scattering on hydrogen and the alkali metals¹ IGOR BRAY, A.V. LUGOVSKOY, A.S. KADYROV, Curtin University — We apply the two-center convergent close-coupling (CCC) method to the calculation of low-energy positron scattering on atomic hydrogen and the alkali metals. Our primary interest is in the near-threshold exothermic rearrangement processes. Examples include positronium (Ps) formation for the alkali metals at near-zero positron energy, and (anti)hydrogen formation in near-threshold Ps-(anti)proton scattering. The cross sections for such processes are infinite at threshold, and we investigate their behavior in the vicinity of threshold.

¹This work is supported by the Australian Research Council.

Igor Bray
Curtin University

Date submitted: 10 Jun 2013

Electronic form version 1.4