

Abstract Submitted
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Positron Direct Annihilation in Positron-Hydrogen Colliding Systems¹ CHI YU HU, Department of Physics, California State University at Long Beach, SERGEY YAKOVLEV, Department of Computational Physics, St. Petersburg University, St. Petersburg, Russia 198504 — Recent advances in theory enables the calculation of positron direct annihilation uniformly both above and below the positronium formation threshold. The direct annihilation cross section is separated out analytically in terms of various scattering amplitudes. We report and compare our new results with numerous existing calculations below the PS formation threshold. The agreement is within 1%. Above the PS formation threshold, the annihilation cross sections are relatively smooth except at the onset of the Feshbach resonances. Resonant-like annihilation peaks are found near all the Feshbach resonances studied so far.

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