

Abstract for an Invited Paper  
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**Gaseous Positronics – Positron interactions with atoms and molecules and their applications<sup>1</sup>**

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The advent of new technologies for accumulating, trapping and cooling positrons has led to a range of new experimental measurements of low energy positron interactions, and also prompted new, state-of-the-art theoretical advances in describing such interactions. This talk will present some of the recent experimental highlights of our program including the observation of threshold Wigner cusps, a search for quasi-bound positronic complexes or “resonances,” and measurements of positron interactions with biologically relevant molecules. The latter are an important precursor to the development of models of positron transport in soft matter and, ultimately, a positron dosimetry for techniques such as Positron Emission Tomography.

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