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Abstract for an Invited Paper
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Efficient production of Ps and progress towards high densities of Ps¹

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In the last two decades, the development of techniques to store and manipulate large numbers of positrons³ has made it possible to study many interesting related phenomena.^{4,5,6} As the number of trapped positrons increases, new experiments are made possible. Recently Cassidy *et al.*⁷ have demonstrated that positronium (Ps) is emitted from clean p- and n-type Si surfaces, with very high efficiency. The discovery of an efficient mechanism for producing Ps (as much as $\sim 70\%$ of the incident positrons are converted to Ps at high sample temperatures) paves the way for studies with high densities of Ps. Here I will discuss recent efforts to better characterize the Ps emitted from both p- and n-type Si surfaces, and describe other experiments that are either planned or have been conducted with such Ps beams.

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⁴C. M. Surko *et al.* (2005) *J. Phys. B* 38, R57

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⁶D. B. Cassidy & A. P. Mills, Jr. (2007) *Nature* 449, 195

⁷D. B. Cassidy *et al.* (2011) *Phys. Rev. Lett.* 106, 133401