

Abstract Submitted
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Simulation and Modeling of Positrons and Electrons in advanced Time-of-Flight Positron Annihilation Induced Auger Electron Spectroscopy Systems¹ PRASAD JOGLEKAR, KARTHIK SHASTRY, SUMAN SATYAL, ALEXANDER WEISS, University of Texas at Arlington — Time of Flight Positron Annihilation Induced Auger Electron Spectroscopy (T-O-F PAES) is a highly surface selective analytical technique in which elemental identification is accomplished through a measurement of the flight time distributions of Auger electrons resulting from the annihilation of core electron by positrons. SIMION charged particle optics simulation software was used to model the trajectories both the incident positrons and outgoing electrons in our existing T-O-F PAES system as well as in a new system currently under construction in our laboratory. The implication of these simulation regarding the instrument design and performance are discussed.

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Prasad Joglekar
University of Texas at Arlington

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