

Ambient Pressure Scanning Photoemission Microscopy

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The investigation of chemical reactions at the vapor/solid interface of realistic samples is of great importance for the understanding of fundamental processes in atmospheric and environmental science, heterogeneous catalysis, and electrochemistry. Ambient pressure Scanning Photoemission Microscopy is an excellent tool for the investigation of these phenomena, since it allows the characterization of surfaces under reaction conditions with high surface, chemical, and spatial sensitivity. In this talk we will describe the basic approach and the challenges in the design and construction of a synchrotron-based AP-SPEM instrument.