

The 1st Workshop for Future Science in Next Generation Synchrotron



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Recent advances in ambient pressure XPS

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The emergence of ambient pressure XPS (AP-XPS) clearly put a new road map on the world of surface science. The combination of differential pumps and electrostatic lens system enables the operation of XPS measurements possible under elevated pressure condition, even at the pressure of 1 Bar and beyond. Since its first demonstration at ALS in 2001, the community of AP-XPS rapidly grew and all major synchrotron facilities around the world run AP-XPS endstations. At the same time, the application of AP-XPS has expanded to the fields of surface catalysis, environmental science, energy material researches, and beyond.

In this talk, I will discuss the latest developments in AP-XPS techniques, along with the challenges and prospects for the future. Also, I will share our recent results of ferroelectric materials using hard X-ray AP-XPS.

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