**Can we do better with in-situ photoelectron spectroscopy?**

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Abstract

The introduction of In-situ and operational conditions has changed the way that we do material characterization. Probing materials at their working condition not only allows us to truly understand an electrochemical system, but it also changes how synchrotron beamline and endstations are designed and operated. In photoelectron spectroscopy Many groups have tried to use different in-situ techniques to address this challenge. Particularly, several significant advances have been made recently to probe the electrochemical interface under in situ and operando conditions using synchrotron radiation based characterization tools. Ambient pressure X-ray photoelectron spectroscopy (APXPS) is one of them [1]. In this talk, I will give a brief history how our group developed APXPS techniques [2] using several in-situ studies on gas/solid and liquid/solid interfaces[3,4]. At the end, I will share the R&D progress that we have made in this area for future DLSR and X-ray free electron laser.

References

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