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Principles of Photoelectron Spectroscopy and a Few Key Applications

June 1Bldg. 101WED 14:00P.M.Seminar room on the 1st floor

Photoelectron Spectroscopy (PES: XPS and UPS) is the most wide-spread surface analysis tool developed by Siegbahn in 1960s based on famous photoelectric effect of Einstein. Such wide use of PES is because XPS has a broad capability from elemental analysis to studies on sophisticated physical phenomena. In this review, I will give the audience brief history, basic principles, and various uses of PES. Among wide applications, I want to introduce some of my studies on energy level alignment and chemical reaction at metal/semiconductor or semiconductor/semiconductor interfaces. This information is closely related to the efficiency enhancement of real devices such as organic LEDs and photovoltaics.

You are cordially invited to attend!