

Abstract: The high brightness light source of synchrotron radiation provides a variety of experimental techniques for probing the solids. Some techniques such as x-ray photoelectron spectroscopy (XPS) and angleresolved photoemission spectroscopy (ARPES) are widely used for the investigation of the electronic structure of occupied electronic states of solids. While the details of the unoccupied electronic states can be obtained by the x-ray absorption spectroscopy (XAS). Furthermore, near ambient pressure x-ray photoelectron spectroscopy (NAP-XPS) is used for a variety of material such as catalyst due to the much technological application. In my talk, these spectroscopy techniques as well as spectroelectrochemistry with some examples are explained.