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Surface characterization of vacuum chambers with synchrotron radiation exposure at a beamline

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Exposure of synchrotron radiation on the vacuum chambers induces high yield of photoelectrons and the consequent increase of pressure from stimulated gas desorption. Characterization of the surface quality of vacuum chambers, either after chemical cleaning or with thin film coating, by synchrotron radiation exposure at a beamline is powerful and sensitive. In this study, analysis of photo-desorption and photoelectron yield for various vacuum chambers, metallic tubes with or without NEG-coatings, at the BL19B-beamline of Taiwan Light Source (TLS) with critical photon energy of 2.14 keV will be described and compared.

Footnotes

Paper preparation format

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Region represented

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