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Oxidation Effects on the Optical Constants of Heavy Metals AMY

GRIGG, STEVE TURLEY, Brigham Young University — Applications for high-energy and extreme ultraviolet light are increasing everywhere in todays technological world. As a result, the need for understanding how light interacts with materials in this energy range of light is also increasing. This study examines a method for determining the optical constants of materials based on reflectance and transmission measurements, taking into account oxidation gradients of the material. The method of x-ray photoelectron spectroscopy rastering is found to be the best method for determining molecular composition gradients.

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