

Abstract Submitted
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Non-Specular Scattering from Black Chrome in the Extreme Ultraviolet¹ JAMES VATERLAUS, QUINTIN NETHERCOTTE, Brigham Young University — An instrument being developed at the Lawrence Livermore National Laboratory is very sensitive to extreme ultraviolet (EUV) radiation. In order to characterize EUV scattering, we are measuring and comparing non-specular intensity reflected from several black chrome plated samples provided by LLNL. The measurements are challenging because the intensity drops off very quickly for non-specular angles making it difficult to see the signal above the background levels of EUV. Doing photon counting with a very low background detector and measuring for extended periods of time, we were able to see above background signals over a large range of non-specular angles. The analysis of our data involves deconvolutions to reconstruct the original image and determine reflectance as a function of angle. We can then reconstruct the non-specular reflectance as a function of scattering angle.

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