

Abstract Submitted
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Dielectric properties and band gap determination of individual nanostructures via valence electron energy loss spectroscopy SHAUL ALONI, Molecular Foundry, MSD, LBNL, Berkeley, California 94720 and Dept. of Physics, UC Berkeley, California, 94720, DAVID OKAWA, Dept. of Physics, UC Berkeley, California, 94720, MICHAEL JOHNSON, Materials Sciences Division, LBNL, Berkeley, California 94720, MICHAEL ROUSSEAS, Dept. of Physics, UC Berkeley, California, 94720, ALEX ZETTL, Dept. of Physics, UC Berkeley, California, 94720 and Molecular Foundry, MSD, LBNL, Berkeley, California 94720 — Recent developments in electron energy loss spectroscopy allow us to measure the dielectric properties near the band gap of the material with resolution better than 0.2 eV. The energy loss spectra in the 0-50 eV range carries information about the dielectric properties of the nanostructures providing information about the plasmon excitations and allows accurate bandgap determination of individual nanostructures.

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