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The electronic structure of CeNiSb3 probed with XAS and XES

PER-ANDERS GLANS, Department of Physics, Boston University, KEVIN E. SMITH, Department of Physics, Boston University, JINGHUA GUO, Advanced Light Source, Lawrence Berkeley National Laboratory, ROBIN T. MACALUSO, Department of Chemistry, Louisiana State University, EVAN L. THOMAS, Department of Chemistry, Louisiana State University, JULIA Y. CHAN, Department of Chemistry, Louisiana State University — Rare earth antimonides have drawn interest because of their important physical properties and bonding. A relatively new member of this family of materials is $CeNiSb_3$. Previous dependent resistivity measurements exhibit a behavior typical for magnetically Kondo lattices with a localized f moment weakly coupled with the conduction band. X-ray absorption (XAS) and emission spectroscopy (XES) measurements of the Ce $3d$ and Ce $4d$ have been performed. These measurements probe the p to d and f to d transitions and the density of states from these measurements will be presented. The BU program is supported by the Department of Energy under DE-FG02-98ER45680 and the program is supported by the NSF (DMR-0237664).

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