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An instrument for the investigation of actinides with spin resolved photoelectron spectroscopy and bremsstrahlung isochromat spectroscopy

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A new system [1] for spin resolved photoelectron spectroscopy [2,3] and bremsstrahlung isochromat spectroscopy [4] has been built and commissioned at Lawrence Livermore National Laboratory for the investigation of the electronic structure of the actinides. Actinide materials are very toxic and radioactive and therefore cannot be brought to most general user facilities for spectroscopic studies. The technical details of the new system and preliminary data obtained therein will be presented and discussed. Lawrence Livermore National Laboratory is operated by Lawrence Livermore National Security, LLC, for the U.S. Department of Energy (DOE), National Nuclear Security Administration under Contract DE-AC52-07NA27344. This work was supported by the U.S. Department of Energy, Office of Basic Energy Science, Division of Materials Sciences and Engineering.

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