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Development of LACES and MUSES Conversion Electron Spectrometers at LSU* SERGIO LOPEZ, S. T. MARLEY, LSU, J. M. ALLMOND, ORNL, M. CARPENTER, ANL, B. CRIDER, Mississippi State University, J. A. CLARK, P. COPP, F. KONDEV, ANL, G. E. MORGAN, LSU, K. RYKACZEWSKI, ORNL, G. SAVARD, ANL, U.Chicago, B. SUDARSAN, LSU — At rare-isotope beam facilities, a wealth of nuclear data is being accumulated. However, in almost all cases, the crucial spin and parity assignments, the primary goal of many nuclear spectroscopy studies, are based on theoretical and/or systematic arguments and lack experimental verification. Conversion Electron (CE) spectroscopy can be used to directly determine gamma-ray transition multipolarities, and in turn provide experimental information about the states in the daughter nucleus, and indirectly, for the properties of the parent. I will present details of two CE spectrometers under development at LSU. The LSU-Argonne Conversion Electron Spectrometer (LACES) will be integrated with the X-Array High-Purity Germanium detectors and Scintillator and Tape Using Radioactive Nuclei (SATURN) moving tape collector system at ANL. The Multi-Segment Electron Spectrometer (MUSES) is a nine-segment Si(Li) detector that will be used in conjunction with the Clover Array for Radioactive ION beams (CLARION) to study activated samples at ORNL. Spectrometer designs, preliminary performance, and plans for commissioning will be presented. *Supported by Louisiana State Board of Regents RCS LEQSF(2016-19)-RD-A-09. Work at ANL and ORNL funded by the U.S. Department of Energy, Office of Nuclear Physics, under Award No. DE-AC02-06CH11357 and DE-AC05-00OR22725, respectively.

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