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Overview for Spectroscopic estigation of Lambda hypernuclei in the wide mass region using the (e,e'K) reaction CHUNHUA CHEN, Hampton University — The third-generation hypernuclear experiment in Hall C Jefferson Lab, E05-115, has successfully finished data taking at the end of October 2009. The HKS-HES experiment aims to obtain high resolution hypernuclear spectroscopy from light to heavy mass region using the $(e,e'K^+)$ reaction. The HKS spectrometer system used as kaon arm in 2005 E01-011 experiment gave us a large kinematics coverage which allows the experiment to obtain high precision information about the absolute binding energy of the hypernuclear ground states, in addition to the excitation energy of the hypernuclear excited states. The HES spectrometer system for electrom arm and a new splitter are used in Hall C to explore hypernuclei in wide mass region (upto A=89), and investigate high excitation states upto d shell with the resolution as best as $400 \ KeV$.

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