

Abstract Submitted
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Preliminary results from Jefferson Lab HKS experiment LULIN

YUAN, Hampton University, JLAB HKS COLLABORATION — The HKS experiment at Jefferson Lab aims to obtain high resolution hypernuclear spectroscopy from light to medium-heavy mass region. A nice feature of the experiment is that the HKS spectrometer system has a 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. We have carried out extensive calibration for the optics and kinematics of the spectrometer system to further improve the energy resolution and the precision of the binding energy determination. In this talk, I will present the most updated spectra of ${}_{\Lambda}^{12}\text{B}$, ${}_{\Lambda}^{28}\text{Al}$ and ${}_{\Lambda}^7\text{He}$. The experimental setup and spectrometer calibration procedure will also be described.

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