Investigation of Binding Energies of Hypernuclei

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We consider statistical disintegration of such hypernuclear systems in high energy of nuclear reactions and the connection of fragment production with the binding energies of hyperons. We have demonstrated that the hyperon binding energies can be effectively evaluated from the yields of different isotopes of hypernuclei. We have proposed the double ratio method. The advantage of this procedure is its universality and the possibility to involve many different isotopes. This method can also be applied for multi-strange nuclei, which binding energies were very difficult to measure in previous hypernuclear experiments. We believe that our calculations would be the pioneering for the extraction and analysis of future hyperon experiments such as GSI/FAIR.