Contribution ID: **848** Type: **Poster Presentation**

The process of Coulomb dissociation of weakly bound relativistic hypernuclei within the two-cluster model

Using the analogy with the problem of ionization and
excitation of atoms at the propagation of relativistic charged particles through matter, the process of Coulomb dissociation
of weakly bound relativistic nuclei and hypernuclei is theoretically investigated in the framework of the two-cluster deuteron-like model. Explicit expressions for the total cross-section of Coulomb disintegration of weakly bound systems are derived, taking into account the corrections connected with
the finite size of the target nucleus; numerical estimates for the Coulomb dissociation of relativistic hypernuclei $^{3}H_{\Lambda}$ and $^{6}He_{\Lambda}$ are performed. It is
shown that, due to the sharp dependence of the cross-section of Coulomb dissociation upon the binding energy, the experimental
measurement of this cross-section in the case of weakly bound relativistic nuclei and hypernuclei allows one to determine the values of binding energy for these systems.

Experimental Collaboration

Authors: Dr LYUBOSHITZ, Valery (Joint Institute for Nuclear Research, Dubna); Dr LYUBOSHITZ, Vladimir (Joint Institute for Nuclear Research, Dubna)

Presenter: Dr LYUBOSHITZ, Valery (Joint Institute for Nuclear Research, Dubna)

Session Classification: Poster session

Track Classification: QCD and Hadronic Physics