

Production of light Ξ -hypernuclei, $7\Xi\text{H}$

Thursday, 30 June 2022 11:15 (15 minutes)

Intense K^- beam at J-PARC will enable us to investigate strangeness -2 systems, namely Ξ -hypernuclei and double- Λ hypernuclei. In particular, the high-resolution S-2S spectrometer will be a key ingredient for a systematic study of these systems by means of (K^-, K^+) reactions.

The J-PARC E75 experiment plans to produce ${}^5_{\Lambda\Lambda}\text{H}$ as a decay product of ${}^7_{\Xi}\text{H}$. In the first phase, we will investigate the formation of ${}^7_{\Xi}\text{H}$ by the ${}^7\text{Li}(K^-, K^+)$ reaction.

We will report the outline of the E75 experiment.

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Session Classification: 4; Thu-IIb