

## Strangeness Physics Programs by S-2S at J-PARC

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A new magnetic spectrometer S-2S is being installed at the K1.8 beam line of J-PARC, Japan. The installation is planned to be completed this year. The first experimental attempt is to measure the binding energy of a  $\Xi$  hypernucleus  ${}^{12}_{\Xi}\text{Be}$  by a missing-mass method through the  $(K^-, K^+)$  reaction. An expected binding-energy resolution is about 2 MeV (FWHM) which is the best among existing data. In addition, we are planning a systematic investigation of double-strangeness nuclei following the  ${}^{12}_{\Xi}\text{Be}$  measurement. In the talk, experimental programs for the strangeness nuclear physics by using the new spectrometer S-2S at J-PARC will be introduced.

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