

Kaonic atom experiments at J-PARC

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Two kaonic atom experiments are on-going in the J-PARC hadron experimental facility. One is E62, a precision measurement of kaonic helium-3 and helium-4 X-rays to investigate the K^- -nucleus potential. In June 2018, we conducted data taking of the kaonic helium experiment using transition-edge-sensor microcalorimeters. The other one, E57, aims at the first measurement of X-rays from kaonic deuterium to extract the iso-spin dependent K^-N scattering amplitude. We performed a pilot experiment in 2019 to study our experimental approach using silicon drift detector arrays. In this contribution, we will present the latest status of the two experiment, focusing on the results of the kaonic helium experiment.

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