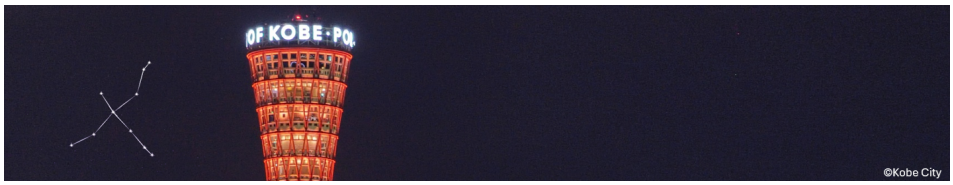

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Ionization yield measurement using gaseous detector for dark matter searches

Tuesday, 24 February 2026 16:21 (1 minute)

Direct dark matter searches using gaseous detectors observe nuclear recoil signals induced by dark matter interactions. However, these detectors measure only the ionization loss, which differs from the actual recoil energy. To evaluate this difference, we conducted an experiment to determine the ionization yield, defined as the ratio of ionization loss to nuclear recoil energy. The measurement was performed using the low energy ion beam facility at Kanagawa University. In this poster, we present an overview of the beam experiment and the final result.

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Session Classification: Poster session