

Observation of the VUV signal from the ^{229}Th isomer in a Th doped CaF_2 crystal toward realizing the nuclear clock (#10)

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“The first excited state of the Th-229 nucleus has an exceptionally low energy of 8 eV, with laser excitability, and is an isomer state with a lifetime of about 10^3 seconds. As such, it is expected to be the only level that can be applied to nuclear clocks. Nuclear clocks are considered to achieve higher accuracy than atomic clocks and are expected to be used to explore physics beyond the Standard Model. This poster presents our work on deexcitation light observations of Th-229 isomers using high-brilliance synchrotron radiation X-rays.”

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Session Classification: Poster