



Institut de recherche sur les lois fondamentales de l'univers
Département de Physique Nucléaire

Séminaire

Mercredi 15/02/2023 11-12h

Bât 703, p.135, DPhN, CEA Saclay, Orme des Merisiers

Kyo TSUKADA

Institute of Chemical Research, Kyoto University

Present status and future prospects of the SCRIT project

The SCRIT (Self-Confining RI Ion Target) electron scattering facility was constructed to realize electron scattering off short-lived unstable nuclei at RIKEN in Japan.

Electron scattering is one of the most powerful and reliable methods for structure studies of atomic nuclei because of the well-understood interaction mechanism with the electromagnetic interaction. However, it has never been applied to short-lived unstable nuclei because of difficulties in preparing thick target, although it has been long-desired to investigate exotic features of unstable nuclei by electron scattering.

In this seminar, I will talk about the present status and future prospects of the SCRIT facility.

This seminar (~30') will be followed by a short presentation (~15') about recent results:

Hikari WAUKE

Department of Physics, Graduate School of Science, Tohoku University

Recent results of electron scattering at SCRIT facility

Recently, we succeeded in realizing the world's first electron scattering from online-produced unstable ^{137}Cs nuclei at the SCRIT facility. The ^{137}Cs beam was produced via photo-fission of uranium by irradiating uranium carbide disks with a 150 MeV electron beam.

In this talk, I will report details of the experiment and obtained spectra.

Furthermore, experiments aiming N=82 isotone and Xe isotope dependences will also be presented.

This seminar is given in the framework of the ESNT [<https://esnt.cea.fr>]



Contact ESNT: valerie.lapoux@cea.fr - +33 1 69 08 40 83