

E459

**PROPOSAL FOR EXPERIMENT AT RCNP**25<sup>th</sup> February 2015**TITLE:**

Development of imaging nuclear spectroscopy with Electron Tracking Compton Camera for nuclear physics, astronomy, and beam therapy

**SPOKESPERSON:**

Full Name: Toru Tanimori

Institution: Physics Department, Kyoto University

Title of Position: Professor

Address: Kitashirakawa-oiwake-cho, Sakyo-ku, Kyoto, 606-8502 Japan

Phone number: +81-75-753-3858

FAX number : +81-75-753-3799

E-mail: [tanimori@cr.scphys.kyoto-u.ac.jp](mailto:tanimori@cr.scphys.kyoto-u.ac.jp)**EXPERIMENTAL GROUP:**

Full Name	Institution ,	Title or Position
Atsushi Takada,	Department of Physics, Kyoto University	Assistant P
Dai Tomono	Department of Physics, Kyoto University	PD
Tatsuya Mizumoto,	Department of Physics, Kyoto University	PD
Yoshitaka Mizumura,	Department of Physics, Kyoto University	PD
Shinya Sonoda	Department of Physics, Kyoto University	PD
Shotaro Komura	Department of Physics, Kyoto University	D3
Tetsuro Kishimoto	Department of Physics, Kyoto University	D1
Taito Takemura	Department of Physics, Kyoto University	M2
Shohei Miyamoto	Department of Physics, Kyoto University	M2

**RUNNING TIME:** Total 3days

Installation time without beam a half days

Development of device a half day

Data runs 2 days

**BEAM LINE:** H beam line in AVF cyclotron

<b>BEAM REQUIREMENTS:</b> Type of particle	H+
Beam Energy	80MeV
Beam Intensity	$1 \times 10^{9-11}$ pps

**BUDGET:**

Stand for the ETCC (when new stand for the ETCC is needed in H beam line)

¥500,000

Travel and lodging fee ¥150,000

Logistics fee ¥200,000

Total ¥850,000

**SAFETY CONTROLLED ITEMS:**

- a flammable gas Ne-CF<sub>4</sub>-C<sub>4</sub>H<sub>10</sub>, (2% C<sub>4</sub>H<sub>10</sub>) and gas is filled in the hermetic vessels (30x30x30cm<sup>3</sup>, 10x10x15cm<sup>3</sup> and it will never be opened in RCNP)
- sealed radio isotopes (checking sources)