Integrating the topic of radioactivity on Nagoya University Campus into the First Year Seminar

H. MUKUMOTO[1,2], S. TOMIYAMA[1,2], T. KATOH[1,2], K. SAKATA[1,2] AND T. TANAKA[1,*]

[1]Chrono. Res., ISEE, Nagoya Univ., Nagoya 464-8601 Japan (*correspondence: tanakat@nagoya-u.jp)

[2]Graduate School of Environmental Studies, Nagoya Univ., Nagoya 464-8602 Japan

Fukushima Dai-ichi Nuclear Power Plant

A severe accident occurred at the Fukushima Daiichi Nuclear Power Plant in March 2011. Accordingly, basic knowledge of radioactivity should be included in the basic curriculum of general education in universities.

Radiation dose in the student's home and on Campus

As part of a First Year Seminar at Nagoya University, the students measure the dose of natural radiation from various sources in our everyday environment. Also measured is the dose equivalent at the home of each student using a Aloka PDM-111 Pocket dose meter and in and around the Higashiyama Campus of the university using an Aloka Survey Meter TCS-161 [1, 2].

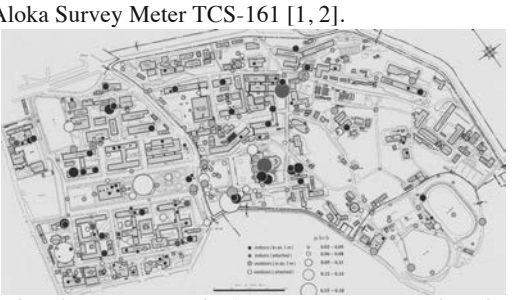

Fig. 1: Dose equivalent on Nagoya University Campus.

The measured values show spatial variations. The does is low (~0.04μSv/h) in a playground upon Tertiary sandy gravel. The dose is higher inside buildings than outside, which is opposite to the case of Fukushima. We go on to study radioactive decay, isotopes, age dating, isotope tracers in geosciences among other topics

This course is attended by students of liberal arts and economics as well as science. We expect the students to remember the experience gained in this course and the approximate dose equivalent received in our daily life.

[1] Tomiyama et. al. (2013) *Bull Nagoya Univ. Museum* **29,** 13-22. [2] Mukumoto and Tanaka (2016) Summaries of Researches using AMS at Nagoya Univ. (XXVII) in press.