

Division of Material Chemistry	Research field	Nuclear Geochemistry	Lab. ID
Laboratory web site	<a href="http://lrl.w3.kanazawa-u.ac.jp/">http://lrl.w3.kanazawa-u.ac.jp/</a>		
Research subjects			
<p>Our laboratory has been investigating the dispersion and transport behavior of radionuclides (Cs-134, 137, Pu-239, 240 etc.) released from the Fukushima Dai-ichi Nuclear Power Plant accident after the Great East Japan Earthquake on 11 March 2011. We also have been studying migration behavior of chemical compounds by using radionuclides (C-14, Ra-226, 228, Th-228 etc.) as tracers in aquatic environment. Our laboratory has ultra-low background radioactivity laboratory, the Ogoya Underground Laboratory, and has been applied the analytical system to very rare environmental samples such as meteorites and deep-sea waters to obtain new findings.</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>The staff and students go to the research fields after making sampling plan on the basis of basic environmental background, monitoring data and preliminary results. Now our laboratory has several research fields such as terrestrial environments (Lake Kiba, Nanao Bay in the Noto Peninsula, river systems in Fukushima, Miyagi and Gunma prefectures, etc.) and marine environments (the Sea of Japan and Okhotsk, etc.). Master students take a seminar and lectures using English books and published papers. Doctor students are encouraged to go to outer activities, participating research workshops/ meetings, international conferences.</p>			
Daily life in the laboratory, etc.			
<p>In April, the students introduce the background of their studies and research plan. The second grade of master students and doctor students make presentation at the trans-boundary environmental science seminar "Environmental Chemistry" held once a month by four research groups. The students also attend to the conferences related to geochemical and environmental radiochemical scientific fields in September and attend to the winter workshop with radiochemical sciences in December.</p>			
Message or comments by the laboratory faculty staffs			
<p>Our laboratory, the Low Level Radioactivity Laboratory is located in Nomi City, about 23 km from the Kakuma Campus and is very good environmental situation. Master and doctor students have each environmental field so that they go to field research to identify factors controlling transport behavior of trace elements and organic matter by using radionuclides. After the sampling, they perform the pretreatment of samples, and determine the physicochemical properties and radioactivity of radionuclides. Nuclear geochemistry is applied chemistry and will be a basic literacy or skill for any careers after graduation.</p>			
Recent Master theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2017.3	Lateral profiles and seasonal variations of $^{228}\text{Th}/^{228}\text{Ra}$ radioactivity ratio at the surface seawater in Sea of Japan		
2017.3	Study of sedimentation processes in Nanao Bay using Pb-210		
2016.3	Spatial variation of the FDNPP-derived $^{134}\text{Cs}$ in coastal/offshore areas of Niigata		
2016.3	Dispersion of radioactive cesium released from the Fukushima Dai-ichi NPP in coastal area off Fukushima Prefecture		
2014.3	Analysis of sedimentation rate and deposition in the Mutsu Bay using Pb-210 method		
2014.3	Study on water mass movement in the surface East China Sea and Japan Sea by using radionuclide tracers		
2013.3	Geochemical behavior of Ra isotopes in high saline groundwaters		
2013.3	Study on transport behavior of radiocesium in the Fukuhsima river systems		
Recent Doctoral theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2017.3	Factors controlling organic pollution in Lake Kiba with shallow and semi-closed environment		
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