

令和4年度発表論文一覧 | Publications of FY2022

Category : 1: peer reviewed, 2: non peer reviewed journals/books, 3: others

ID	Title	IERAuthor	Author	Journal	Category	Month/Year	DOI
	タイトル	IER著者	著者	雑誌名			
IER-2022-059	Fukushima and Chernobyl: Similarities and Differences of Radiocesium Behavior in the Soil–Water Environment.	Konoplev A.	Aleksei Konoplev	Toxics	1	2022	10.3390/toxics10100578
IER-2022-058	Application of a tuning-free burned area detection algorithm to the Chernobyl wildfires in 2022	Y.Igarashi	Hu, J., Igarashi, Y., Kotsuki, S	SciRep	1	2023	10.1038/s41598-023-32300-5
IER-2022-057	Radiocesium accumulation and germline mutations in chronically exposed wild boar from Fukushima, with radiation doses to human consumers of contaminated meat	H. Ishiniwa, S. Kaneko, K. Nanba, T. G. Hinton	A. Anderson, S. Kaneko, A. Harshman, K. Okuda, T. Takagi, S. Chinn, J. C. Beasley, K. Nanba, H. Ishiniwa, T. G. Hinton	Environmental Pollution	1	2022	10.1016/j.envpol.2022.119359
IER-2022-056	Environmental recovery from 137Cs contamination in Japanese coastal waters shown by comparison of temporal distributions with European seas.	H. Takata	H. Takata	Journal of Environmental Radioactivity	1	2022	10.1016/j.jenvrad.2022.106961
IER-2022-055	「福島沖における海洋環境中の放射性セシウムの濃度変動について」	H. Takata	T. Aono, J. Nishikawa, S. Otosaka, H. Takata, T. Misonou, T. Nakanishi, H. Miura, M. Fukuda, S. Kambayashi, M. Sakurada, H. Takahashi, S. Yamazaki	Proceedings of the 23rd Workshop on Environmental Radioactivity, 88-91 (In Japanese with English abstract)	1	2022	
IER-2022-054	「福島沖の動物プランクトンにおけるCs-137濃度の変動は群衆構造や栄養段階構造から説明できるのか？：2018年および2020年の結果より」	H. Takata	M. Yamada, K. Furuhashi, Y. Tateda, T. Aono, H. Takata, Y. Hamajima, M. Aoyama, T. Kobayashi, S. Otosaka, J. Nishikawa	Proceedings of the 23rd Workshop on Environmental Radioactivity, 92-96 (In Japanese with English abstract)	1	2022	
IER-2022-053	「動物プランクトンにおける放射性核種の動態」(Dynamics of radiocesium in marine zooplankton)	H. Takata	M. Kitamura, H. Kaeriyama, T. Ikenoue, H. Takata, T. Ishimaru	月刊海洋	1	2022	
IER-2022-052	「大型台風による河川氾濫が福島沿岸海水の放射性セシウム濃度を上昇させた」(Rapid increase in radio cesium concentration in the coastal water off Fukushima due to river flood following to a large typhoon)	H. Takata	H. Takata, Y. Wakayama, T. Niida, Y. Igarashi, A. Konoplev, N. Inatomi	月刊海洋	1	2022	
IER-2022-051	Temporal variability of 137Cs concentrations in coastal sediments off Fukushima." Science of the Total Environment	H. Takata	S. Suzuki, Y. Amano, M. Enomoto, A. Matsumoto, Y. Morioka, K. Sakuma, T. Tsuruta, H. Kaeriyama, H. Miura, D. Tsumune, K. Kamiyama, T. Wada, H. Takata	Science of the Total Environment	1	2022	10.1016/j.scitotenv.2022.154670
IER-2022-050	Fukushima-derived radio cesium in the western subarctic area of the North Pacific Ocean, Bering Sea, and Arctic Ocean in 2019 and 2020	M. Aoyama	Y. Kumamoto, M. Aoyama, Y. Hamajima, M. Inoue, S. Nishino, T. Kikuchi, A. Murata, K. Sato	Journal of Environmental Radioactivity, 251-252,106949	1	2022	10.1016/j.jenvrad.2022.106949
IER-2022-049	Estimation of rooting depth of 137Cs uptake by plants	H. Tsukada, V. Yoschenko	N. P. Thoa, T. Kurosawa, M. Kikuchi, V. Yoschenko and H. Tsukada	Journal of Environmental Radioactivity	1	2022	10.1016/j.jenvrad.2022.106847
IER-2022-048	Activity concentrations of radio cesium in self-consumed crops collected in Namie, Fukushima from 2019 to 2020 with associated internal radiation doses to humans	H. Tsukada	M. Kikuchi, K. Nishi, N. Takamura and H. Tsukada	Radioisotopes	1	2022	
IER-2022-047	Soil-soil solution distribution coefficient of radioiodine in surface soils around spent nuclear fuel reprocessing plant in Rokkasho, Japan	H. Tsukada	A. Takeda, Y. Unno, H. Tsukada, Y. Takaku and S. Hisamatsu	Radiation Protection Dosimetry	1	2022	10.1093/rpd/ncac051
IER-2022-046	Activity concentrations of radio cesium, 90Sr and 129I in agricultural crops collected from Fukushima and reference areas, and internal radiation dose	H. Tsukada	H. Tsukada, T. Takahashi and S. Fukutani	Radiation Protection Dosimetry	1	2022	10.1093/rpd/ncac066
IER-2022-045	Spatial distribution and temporal change of 137Cs activity concentration in dissolved and suspended fractions of irrigation waters collected from Fukushima	H. Tsukada	H. Tsukada	Behavior of radionuclides in the Environment. Volume III – Fukushima	2	2022	
IER-2022-044	Measurement technology for radiation distribution visualization: Imaging and mapping of radiation distribution after the Fukushima Daiichi Nuclear Power Plant accident	T. Torii	T. Torii and S. Sanada	Keisoku Gijitu (Measurement Technology)	1	2022	
IER-2022-043	Characterization of atmospheric tritiated water concentration in the vicinity of the Fukushima Daiichi nuclear power plant	S. Hirao	S. Hirao, H. Kakiuchi, N. Akata, T. Tamari, S. Sugihara, N. Shima, S. Yokoyama, M. Tanaka	Journal of Radioanalytical and Nuclear Chemistry	1	08-Jun-22	
IER-2022-042	Assessment of localized and resuspended 137Cs due to decontamination and demolition in the difficult-to-return zone of Tomioka town, Fukushima Prefecture	S. Hirao	Y. Taira, M. Matsuo, M. Orita, H. Matsunaga, N. Takamura, S. Hirao	Integrated Environmental Assessment and Management	1	2022	10.1002/ieam.4625
IER-2022-041	Performance evaluation of commercial scintillation cocktails for low-level tritium counting by high-capacity liquid scintillation counter	S. Hirao	H. Kuwata, H. Tazoe, C. Kranrod, K. Fujiwara, M. Terashima, M. Matsueda, S. Hirao, N. Akata	Radiation Protection Dosimetry	1	9-Sep-22	
IER-2022-040	Regional Case Studies: Environmental Radioactivity Levels and Estimated Radiation Exposure Doses of Residents and Workers in Areas Affected by the Fukushima Daiichi Nuclear Power Plant Accident	S. Hirao	Yasuyuki Taira, Masahiko Matsuo, Makiko Orita, Hitomi Matsunaga, Yuya Kashiwazaki, Xu Xiao, Shigekazu Hirao, Noboru Takamura	Radiation Environment and Medicine	1	27-Feb-23	10.51083/radiat.environmed.12.1_37
IER-2022-039	Late phase radio cesium dynamics in Fukushima forests post deposition	V. Yoschenko	V. Yoschenko, K. Nanba, T. Wada, T.E. Johnson, J. Zhang, D. Workman, H. Nagata	Journal of Environmental Radioactivity	1	2022	10.1016/j.jenvrad.2022.106947
IER-2022-038	Dependency of radioiodine root uptake by crops on soil characteristics.	V. Yoschenko	S. Levchuk, V. Yoschenko, P. Hurtevent, Y. Khomutinin, S. Zvarych, V. Kashparov	Journal of Environmental Radioactivity	1	2022	10.1016/j.jenvrad.2022.107104
IER-2022-037	Behavior of Fukushima-Derived Radio cesium in Forest Ecosystems	V. Yoschenko	V. Yoschenko, K. Nanba, T. Ohkubo, H. Kato	Behavior of radionuclides in the Environment. Volume III – Fukushima		2022	10.1007/978-981-16-6799-2_19
IER-2022-036	Study on Separation of Rhenium, a Surrogate Element of Fissionogenic Technetium, from Aqueous Matrices Using Ion-Selective Extraction Chromatographic Resins	H. Takata, I. M. M. Rahman	M. F. Alam, Z. A. Begum, Y. Furusho, H. Takata, I. M. M. Rahman			2023	10.3390/separations10030216
IER-2022-035	Synthesis and characterization of porous metal oxides nanoparticles (多孔性金属酸化物ナノ粒子の合成及び特性評価に関する研究)	Z.A. Begum, I.M.M. Rahman	H. Tomita, Z.A. Begum, I.M.M. Rahman, B.A. Arima	IEICE Technical Report	1	2022	

IER-2022-034	Studies on cobalt (III) complexes of a cyanoethyl derivative of an isomeric hexamethyl tetraazamacrocyclic ligand	Z.A. Begum, I.M.M. Rahman	M.A. Sayed, S. Rabi, P. Paul, L. Dey, B.K. Dey, Z.A. Begum, I.M.M. Rahman, T.G. Roy	Journal of Inclusion Phenomena and Macrocyclic Chemistry	1	2022	10.1007/s10847-021-01110-5
IER-2022-033	Enhanced remediation of arsenic-contaminated excavated soil using a binary blend of biodegradable surfactant and chelator	Z.A. Begum, I.M.M. Rahman	S. Rahman, I.M.M. Rahman, N. Shengbin, Y. Harada, S. Kasai, K. Nakakubo, Z.A. Begum, K.H. Wong, A.S. Mashio, A. Ohta, H. Hasegawa	Journal of Hazardous Materials	1	2022	10.1016/j.hazmat.2022.128562
IER-2022-032	Biodegradable chelator-assisted washing and stabilization of arsenic-contaminated excavated soils	Z.A. Begum, I.M.M. Rahman	S. Rahman, N. Jii, S. Ni, Y. Harada, A.S. Mashio, Z.A. Begum, I.M.M. Rahman, H. Hasegawa	Water, Air, & Soil Pollution	1	2022	10.1007/s11270-022-05664-z
IER-2022-031	Rhodium(III) and platinum(II) complexes of azamacrocycles: Synthesis, characterization and antimicrobial evaluation	I.M.M. Rahman	S. Rabi, P. Paul, S.K.S. Hazari, B.K. Dey, D. Palit, I.M.M. Rahman, T.G. Roy	Asian Journal of Chemistry	1	2022	10.14233/ajchem.2022.23893
IER-2022-030	Selective separation of radionuclides from environmental matrices using proprietary solid-phase extraction systems	Z.A. Begum, I.M.M. Rahman	M.F. Alam, Z.A. Begum, Y. Furusho, H. Hasegawa, I.M.M. Rahman	Microchemical Journal	1	2022	10.1016/j.microc.2022.107637
IER-2022-029	Nickel(II) complexes of an octamethyl tetraazamacrocycle and its *N*-pendent derivative: Syntheses, characterization, electrolytic behavior, and antimicrobial activities	I.M.M. Rahman	R. Amin, S. Rabi, L. Barua, M.N. Uddin, M.I. Morshed, I.M.M. Rahman, T.G. Roy	Asian Journal of Chemistry	1	2023	10.14233/ajchem.2023.26929
IER-2022-028	Isolation and identification of naturally occurring textile effluent-degrading bacteria and evaluation of their ability to inhibit potentially toxic elements	I.M.M. Rahman	S. Barua, S. Miah, M.N. Mahmud, *I.M.M. Rahman*	Results in Engineering	1	2023	10.1016/j.rineng.2023.100967
IER-2022-027	An overview of Fukushima-derived strontium radioisotopes	I.M.M. Rahman, Z.A. Begum, K. Nanba, A. Konoplev, T. Wada	I.M.M. Rahman, H. Sawai, M.F. Alam, Z.A. Begum, K. Nanba, A. Konoplev, T. Wada	Behavior of Radionuclides in the Environment III: Fukushima	1	2023	10.1007/978-981-16-6799-2_6
IER-2022-026	Increased abundance of a common scavenger affects allocation of carrion but not efficiency of carcass removal in the Fukushima Exclusion Zone.	T. G. Hinton	H. C. Gerke, T. G. Hinton, K. Okuda, J. Beasley	Scientific Reports 12, 8903	1	26-May-22	
IER-2022-025	Acoustic zone monitoring to quantify fine-scale movements of aquatic animals in a narrow water body.	T. Wada	H. Mitamura, T. Wada, J. Takagi, T. Noda, T. Hori, K. Takasaki, G. Kawata, N. Arai	Environmental Biology of Fishes	1	2022	
IER-2022-024	Radiocesium-bearing microparticles cause a large variation in ¹³⁷Cs activity concentration in the aquatic insect <i>Stenopsyche marmorata</i> (Tricoptera: Stenopsychidae) in the Ota River, Fukushima, Japan	T. Wada	Y. Ishii, H. Miura, J. Jo, H. Tsuji, R. Saito, K. Korai, H. Hagiwara, T. Urushidate, T. Nishikiori, T. Wada, Y. Takahashi, S. Hayashi	PLoS ONE	1	2022	
IER-2022-023	Otolith isotopic characterization as a nursery habitat indicator for stone flounder <i>Platichthys bicoloratus</i>.	T. Wada	Y. Amano, T. Otake, H. Togashi, T. Wada, A. Kasai, Y. Kato, C. Yoshimizu, I. Tayasu, Y. Kurita, K. Shirai	Estuarine, Coastal and Shelf Science	1	2022	10.1016/j.ecss.2022.108028
IER-2022-022	Factors affecting ¹³⁷Cs radioactivity and water-to-body concentration ratios of fish in river and pond environments near the Fukushima Dai-ichi Nuclear Power Plan	T. Wada, A. Konoplev, K. Nanba	T. Wada, A. Hinata, Y. Furuta, K. Sasaki, A. Konoplev, K. Nanba	Journal of Environmental Radioactivity	1	2023	10.1016/j.jenvrad.2022.107103
IER-2022-021	10 year after the Great East Japan Earthquake: Marine Ecosystem, Fisheries, and Coastal Communities	T. Wada	S. Katayama, T. Wada, T. Kawamura	Kouseisakouseikaku	2	2022	
IER-2022-020	Preparation of Highly Concentrated Uniform-Sized Silver Nanoparticles via Use of Thermoresponsive Zwitterionic Surfactants	Y. Takagai	Y. Takagai, M. Nagasaku, T. Nakagawa, T. Takase, W. L. Hinze	Langmuir	1	2022	10.1021/acs.langmuir.2c02322
IER-2022-019	Mass-spectrometric determination of iodine-129 using O₂-CO₂ mixed-gas reaction in inductively coupled plasma tandem quadrupole mass spectrometry	Y. Takagai	M. Matsueda, J. Aoki, K. Koarai, M. Terashima, Y. Takagai	Analytical Sciences	1	2022	10.1007/s44211-022-00180-w
IER-2022-018	Sensitivity enhancement in inductively coupled plasma mass spectrometry using nebulization methods via nitrogen mixed gas effect	Y. Takagai	K. Yanagisawa, M. Matsueda, M. Furukawa, Y. Takagai	Analytical Sciences	1	2022	10.1007/s44211-022-00140-4
IER-2022-017	Using CO₂ Reactions to Achieve Mass-Spectrometric Discrimination in Simultaneous Plutonium-Isotope Speciation with Inductively Coupled Plasma-Tandem Mass Spectrometry	Y. Takagai	M. Matsueda, T. Kawakami, K. Koarai, M. Terashima, K. Fujiwara, K. Iijima, M. Furukawa, Y. Takagai	Chemistry Letters		2022	10.1246/cl.220160
IER-2022-016	Online solid-phase extraction-Inductively coupled plasma-quadrupole mass spectrometric quantification of ⁹⁰Sr using 88Sr/86Sr isotope dilution method	Y. Takagai	K. Yanagisawa, M. Odashima, M. Matsueda, M. Furukawa, Y. Takagai	Talanta	1	2022	10.1016/j.talanta.2022.123442
IER-2022-015	Analysis of Groundwater Flows under the Fukushima Daiichi Nuclear Power Plant Reactors Using Contaminated Water from 42 Subdrain-Pits	N. Shibasaki, Y. Takagai	T. Tanji, M. Furukawa, S. Taguma, K. Fujimoto, H. Sato, N. Shibasaki, Y. Takagai	ACS ES&T Water	1	2022	10.1021/acsestwater.2c00455
IER-2022-014	Mutational effects of chronic gamma radiation throughout the life cycle of <i>Arabidopsis thaliana</i>: Insight into radiosensitivity in the reproductive stage	S. Kaneko	A. S. Hirao, Y. Watanabe, Y. Hasegawa, T. Takagi, S. Ueno, S. Kaneko	Science of The Total Environment	1	2022	10.1016/j.scitotenv.2022.156224
IER-2022-013	[福島第一・第二原発およびその周辺の放射性廃棄物問題と地層処分に関する問題提起](Raising the issue of radioactive waste in and around the Fukushima Daiichi and Daini Nuclear Power Stations and its geological disposal)]	N. Shibasaki	N. Shibasaki	地学教育と科学運動	1	2022	
IER-2022-012	Seasonal Variation in Groundwater Quality Revealed by the Multi-tracer near the Coastal Area of Sendai, Japan	N. Shibasaki	S. YABUSAKI, R. YAMAMOTO, N. Shibasaki	The Japan Society of Hydrology and Water Resources	1	2022	
IER-2022-011	Cesium-rich microparticles runoff during rainfall: A case study in the Takase River	T. Tatsuno, T. Wada	T. Tatsuno, H. Waki, M. Kakuma, N. Nihei, T. Wada, K. Yoshimura, T. Nakanishi, N. Ohte	Radiation Protection Dosimetry	1	2022	
IER-2022-010	Effect of radioactive cesium-rich microparticles on radioactive cesium concentration and distribution coefficient in rivers flowing through the watersheds with different contaminated condition in Fukushima	T. Tatsuno, T. Wada	T. Tatsuno, H. Waki, M. Kakuma, N. Nihei, T. Takase, T. Wada, K. Yoshimura, T. Nakanishi, N. Ohte	Journal of Environmental Management	1	2023	10.1016/j.jenvman.2022.116983
IER-2022-009	Effect of soil organic matters on Cs migration in soils	T. Tatsuno	T. Tatsuno, S. Hamamoto, N. Nihei, T. Nishimura	Journal of the Japanese Society of Soil Physics	1	2022	10.1016/j.ecoenv.2023.115177
IER-2022-008	Persistent impact of Fukushima decontamination on soil erosion and suspended sediment.	Y. Wakiyama	Feng, B., Onda, Y., Wakiyama, Y., Taniguchi, K., Hashimoto, A., Zhang, Y	Nature Sustainability	1	2022	
IER-2022-007	Impact of Bottom-Sediment Removal on ¹³⁷Cs Contamination in an Urban Pond.	Y. Wakiyama, T. Wada, K. Nanba	Kurosawa H., Wakiyama Y., Wada T., Nanba K	Land	1	2023	
IER-2022-006	Better understand past, present and future climate variability by linking water isotopes and conventional hydrometeorology: summary and recommendations from the International Atomic Energy Agency and World Meteorological Organization	M. Gusyev	Vystavna Y., Cullmann J., Hipel K., Miller J., Soto D., Harjung A., Watson A., Mattei A., Kebede S., and Gusyev M	Isotopes in Environmental and Health Studies	1	2022	10.1080/10256016.2022.2108418

IER-2022-005	Comprehensive evaluation of parameter importance and optimization based on the integrated sensitivity analysis system: A case study of the BTOP model in the upper Min River Basin, China	M.Gusyev	Liu L., Ao T., Zhou, L., Takeuchi K., Gusyev M. , Zhang X., Wang W., and Renhi Y	Journal of Hydrology	1	2022	10.1016/j.jhydrol.2022.127819
IER-2022-004	Evaluating changes in radionuclide concentrations and groundwater levels before and after the cooling pond drawdown in the Chornobyl Nuclear Power Plant vicinity	M.Gusyev,N. Shibusaki,M.Zheleznyak, K. Nanba	Sato, H., Gusyev, M. , Veremenko, D., Laptev, G., Shibusaki, N. , Onda, Y., Zheleznyak, M. , Kirieiev, S. and Nanba, K.	Science of The Total Environment	1	2023	10.1016/j.scitotenv.2023.161997
IER-2022-003	Modelling of the Fate of ^{137}Cs and ^{90}Sr in the Chornobyl Nuclear Power Plant Cooling Pond before and after the Water Level Drawdown	M.Zheleznyak,M.Gusyev, T. Wada	Bezhenar R; Zheleznyak M. ; Kanivets V.; Protsak V.; Gudkov D.; Kaglyan A.; Kirieiev S.; Gusyev M. ; Wada T , Udovenko O.; Nasvit O.		1	2023	10.5194/egusphere-egu21-13038
IER-2022-002	Ecological footprint of Russia's Ukraine invasion	M.Zheleznyak	Zheleznyak, M. , Donchyts, G., Maderich, V., Dronova, I., Tkalich, P., Trybushnyi, D., Faybischenko, B. and Dvorzhak	Science	1	2022	10.1126/science.adc6869
IER-2022-001	Application of the hydrological model chain of the RODOS decision support system for nuclear emergencies to the analysis of possible consequences of severe accident	M.Zheleznyak	Pylypenko, O., Bezhenar, R., Kivva, S., Kopka, P., Potempski, S., Wojciechowicz, H. and Zheleznyak, M.	Annals of Nuclear Energy	1	2023	10.1016/j.anucene.2023.109823