Satoshi Utsunomiya

List of Publications by Year
in descending order

122 papers	6,502 citations	71061 41 h-index	66879 78 g-index
123 all docs	123 docs citations	123 times ranked	5602 citing authors

#	Article	IF	Citations
1	Ten years after the NPP accident at Fukushima : review on fuel debris behavior in contact with water. Journal of Nuclear Science and Technology, 2022, 59, 1-24.	0.7	16
2	A review of efforts for volume reduction of contaminated soil in the ten years after the accident at the Fukushima Daiichi Nuclear Power Plant. Journal of Nuclear Science and Technology, 2022, 59, 135-147.	0.7	7
3	Geochemistry of barium ions associated with biogenic manganese oxide nanoparticles generated by a fungus strain: Implications for radium sequestration in uranium mill tailings. Gondwana Research, 2022, 110, 270-282.	3.0	2
4	Chemical species of iodine during sorption by activated carbon -Effects of original chemical species and fulvic acids. Journal of Nuclear Science and Technology, 2022, 59, 580-589.	0.7	3
5	Volatilization of B4C control rods in Fukushima Daiichi nuclear reactors during meltdown: Bâ€“Li isotopic signatures in cesium-rich microparticles. Journal of Hazardous Materials, 2022, 428, 128214.	6.5	8
6	Gravitational separation of 137Cs contaminated soil in Fukushima environment: Density dependence of 137Cs activity and application to volume reduction. Journal of Environmental Radioactivity, 2022, 246, 106846.	0.9	1
7	Occurrence of highly radioactive microparticles in the seafloor sediment from the pacific coast 35Âkm northeast of the Fukushima Daiichi nuclear power plant. Chemosphere, 2021, 267, 128907.	4.2	12
8	Solubility of monoclinic and yttrium stabilized cubic ZrO2: Solution and surface thermodynamics guiding ultra-trace analytics in aqueous phase. Journal of Nuclear Materials, 2021, 545, 152631.	1.3	7
9	The role of nanoscale aggregation of ferrihydrite and amorphous silica in the natural attenuation of contaminant metals at mill tailings sites. Geochimica Et Cosmochimica Acta, 2021, 298, 207-226.	1.6	6
10	New highly radioactive particles derived from Fukushima Daiichi Reactor Unit 1: Properties and environmental impacts. Science of the Total Environment, 2021, 773, 145639.	3.9	18
11	Abundance and distribution of radioactive cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant into the environment. Chemosphere, 2020, 241, 125019.	4.2	36
12	Desorption mechanisms of cesium from illite and vermiculite. Applied Geochemistry, 2020, 123, 104768.	1.4	9
13	Particulate plutonium released from the Fukushima Daiichi meltdowns. Science of the Total Environment, 2020, 743, 140539.	3.9	30
14	Organic complexation of U(VI) in reducing soils at a natural analogue site: Implications for uranium transport. Chemosphere, 2020, 254, 126859.	4.2	36
15	Function of Microbes on Chemical Species Transformation of Radionuclides. , 2020, , 67-92.		1
16	Application of Electron Microscopy to Understanding Colloid-Facilitated Transport of Radionuclides at the Mayak Production Association Facility, Near Lake Karachai, Russia. , 2020, , 177-200.		1
17	Commentary on the Role of Microorgansims and Nanoparticles in Radionuclides Migration through Groundwater. , 2020, , 221-225.		1
18	Metaschoepite Dissolution in Sediment Column Systemsâ€”Implications for Uranium Speciation and Transport. Environmental Science & Technology, 2019, 53, 9915-9925.	4.6	14

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19	Dissolution of radioactive, cesium-rich microparticles released from the Fukushima Daiichi Nuclear Power Plant in simulated lung fluid, pure-water, and seawater. Chemosphere, 2019, 233, 633-644.	4.2	33
20	Formation of radioactive cesium microparticles originating from the Fukushima Daiichi Nuclear Power Plant accident: characteristics and perspectives. Journal of Nuclear Science and Technology, 2019, 56, 790-800.	0.7	8
21	Nano-scaled Calcium Molybdate Particle Formation on Egg Phosphatidylcholine Liposome Surface. Chemistry Letters, 2019, 48, 1480-1483.	0.7	1
22	Editorial for Special Issue â€œMinerals Down to the Nanoscale: A Glimpse at Ore-Forming Processesâ€• Minerals (Basel, Switzerland), 2019, 9, 692.	0.8	2
23	The competing effects of microbially derived polymeric and low molecular-weight substances on the dispersibility of CeO2 nanoparticles. Scientific Reports, 2018, 8, 3648.	1.6	7
24	Uranium Dioxides and Debris Fragments Released to the Environment with Cesium-Rich Microparticles from the Fukushima Daiichi Nuclear Power Plant. Environmental Science & Technology, 2018, 52, 2586-2594.	4.6	63
25	Biomineralization of Middle Rare Earth Element Samarium in Yeast and Bacteria Systems. Geomicrobiology Journal, 2018, 35, 375-384.	1.0	17
26	Effective and efficient desorption of Cs from hydrothermal-treated clay minerals for the decontamination of Fukushima radioactive soil. Chemical Engineering Journal, 2018, 333, 392-401.	6.6	32
27	Novel Method of Quantifying Radioactive Cesium-Rich Microparticles (CsMPs) in the Environment from the Fukushima Daiichi Nuclear Power Plant. Environmental Science & Technology, 2018, 52, 6390-6398.	4.6	54
28	Calcium molybdate nanoparticles formation in egg phosphatidyl choline based liposome caused by liposome fusion. Journal of Colloid and Interface Science, 2018, 530, 473-480.	5.0	2
29	Caesium-rich micro-particles: A window into the meltdown events at the Fukushima Daiichi Nuclear Power Plant. Scientific Reports, 2017, 7, 42731.	1.6	88
30	Removal of Soluble Strontium via Incorporation into Biogenic Carbonate Minerals by Halophilic Bacterium Bacillus sp. Strain TK2d in a Highly Saline Solution. Applied and Environmental Microbiology, 2017, 83, .	1.4	20
31	Isotopic signature and nano-texture of cesium-rich micro-particles: Release of uranium and fission products from the Fukushima Daiichi Nuclear Power Plant. Scientific Reports, 2017, 7, 5409.	1.6	68
32	Effect of Temperature on K⁺ and Mg²⁺ Extracted Desorption of Cs from Vermiculitized Biotite. Chemistry Letters, 2017, 46, 1350-1352.	0.7	9
33	Sorption Behavior of Np(V) on Microbe Pure Culture and Consortia. Chemistry Letters, 2017, 46, 771-774.	0.7	0
34	Crystal Chemistry and Stability of Hydrated Rare-Earth Phosphates Formed at Room Temperature. Minerals (Basel, Switzerland), 2017, 7, 84.	0.8	17
35	Adsorption of Extracellular Polymeric Substances Derived from S. cerevisiae to Ceria Nanoparticles and the Effects on Their Colloidal Stability. Environments - MDPI, 2017, 4, 48.	1.5	15
36	Structure of a Gold(III) Hydroxide and Determination of Its Solubility. Bulletin of the Chemical Society of Japan, 2016, 89, 1385-1390.	2.0	11

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37	Radioactive Cs in the estuary sediments near Fukushima Daiichi Nuclear Power Plant. Science of the Total Environment, 2016, 551-552, 155-162.	3.9	35
38	Radioactive Cs in the Severely Contaminated Soils Near the Fukushima Daiichi Nuclear Power Plant. Frontiers in Energy Research, 2015, 3, .	1.2	38
39	Vapor hydration of a simulated borosilicate nuclear waste glass in unsaturated conditions at 50 Â°C and 90 Â°C. RSC Advances, 2015, 5, 64538-64549.	1.7	23
40	Sorption of trivalent cerium by a mixture of microbial cells and manganese oxides: Effect of microbial cells on the oxidation of trivalent cerium. Geochimica Et Cosmochimica Acta, 2015, 163, 1-13.	1.6	26
41	Effect of minerals on accumulation of Cs by fungus Saccaromyces cerevisiae. Journal of Environmental Radioactivity, 2015, 144, 127-133.	0.9	10
42	Constraints on Hf and Zr mobility in high-sulfidation epithermal systems: formation of kosnarite, KZr2(PO4)3, in the Chaquicocha gold deposit, Yanacocha district, Peru. Mineralium Deposita, 2015, 50, 429-436.	1.7	3
43	Role of vein-phases in nanoscale sequestration of U, Nb, Ti, and Pb during the alteration of pyrochlore. Geochimica Et Cosmochimica Acta, 2015, 150, 226-252.	1.6	14
44	Effects of CeO2 nanoparticles on microbial metabolism. Chemical Geology, 2015, 391, 33-41.	1.4	13
45	Multi-scale analysis of the occurrence of Pb, Cr and Mn in the NIST standards: Urban dust (SRM 1649a) and indoor dust (SRM 2584). Atmospheric Environment, 2014, 82, 364-374.	1.9	12
46	Mechanism of water oxidation by non-heme iron catalysts when driven with sodium periodate. Dalton Transactions, 2014, 43, 12501-12513.	1.6	54
47	The coupled geochemistry of Au and As in pyrite from hydrothermal ore deposits. Geochimica Et Cosmochimica Acta, 2014, 140, 644-670.	1.6	400
48	Adsorption of ytterbium onto Saccharomyces cerevisiae fungal cells: A pH-dependent contribution of phosphoryl functional group. Journal of Radioanalytical and Nuclear Chemistry, 2013, 295, 2283-2287.	0.7	3
49	Nano-scale reaction processes at the interface between apatite and aqueous lead. Chemical Geology, 2013, 340, 121-130.	1.4	24
50	Gold-telluride nanoparticles revealed in arsenic-free pyrite. American Mineralogist, 2012, 97, 1515-1518.	0.9	150
51	Post-adsorption process of Yb phosphate nano-particle formation by Saccharomyces cerevisiae. Geochimica Et Cosmochimica Acta, 2012, 93, 30-46.	1.6	33
52	Lead in zircon at the atomic scale. American Mineralogist, 2012, 97, 1094-1102.	0.9	17
53	Vapor hydration of SON68 glass from 90Â°C to 200Â°C: A kinetic study and corrosion products investigation. Journal of Non-Crystalline Solids, 2012, 358, 2894-2905.	1.5	57
54	Effect of Redox Conditions on Actinide Speciation and Partitioning with Colloidal Matter. , 2011, , 361-375.		8

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55	Scanning Transmission Electron Microscopy and Related Techniques for Research on Actinide and Radionuclide Nanomaterials. , 2011, , 33-62.		3
56	Identification and characterization of nanosized tripuhyite in soil near Sb mine tailings. American Mineralogist, 2011, 96, 1171-1181.	0.9	28
57	Studies of (Cs,Ba)-hollandite dissolution under gamma irradiation at 95Â°C and at pH 2.5, 4.4 and 8.6. Journal of Nuclear Materials, 2011, 419, 281-290.	1.3	19
58	Trace metal nanoparticles in pyrite. Ore Geology Reviews, 2011, 42, 32-46.	1.1	327
59	Nanogeoscience in ore systems research: Principles, methods, and applications. Ore Geology Reviews, 2011, 42, 1-5.	1.1	28
60	Focussed ion beamâ€“transmission electron microscopy applications in ore mineralogy: Bridging micro- and nanoscale observations. Ore Geology Reviews, 2011, 42, 6-31.	1.1	105
61	Early Proterozoic weathering processes under low O2 conditions reconstructed from a 2.45 Ga paleosol in Pronto, Canada. American Mineralogist, 2011, 96, 1613-1623.	0.9	7
62	Precipitation and alteration of coffinite (USiO4nH2O) in the presence of apatite. European Journal of Mineralogy, 2010, 22, 75-88.	0.4	10
63	Biological nano-mineralization of Ce phosphate by Saccharomyces cerevisiae. Chemical Geology, 2010, 277, 61-69.	1.4	48
64	Time-response relationship of nano and micro particle induced lung inflammation. Quartz as reference compound. Human and Experimental Toxicology, 2010, 29, 915-933.	1.1	37
65	Stability of uranium (VI) peroxide hydrates under ionizing radiation. American Mineralogist, 2009, 94, 229-235.	0.9	14
66	Crystal chemistry and radiation-induced amorphization of P-coffinite from the natural fission reactor at Bangombe, Gabon. American Mineralogist, 2009, 94, 827-837.	0.9	18
67	Nanoscale "liquid" inclusions of As-Fe-S in arsenian pyrite. American Mineralogist, 2009, 94, 391-394.	0.9	53
68	Source-to-receptor pathways of anthropogenic PM2.5 in Detroit, Michigan: Comparison of two inhalation exposure studies. Atmospheric Environment, 2009, 43, 1805-1813.	1.9	6
69	Primary haematite formation in an oxygenated sea 3.46â€‰billion years ago. Nature Geoscience, 2009, 2, 301-306.	5.4	94
70	Groundwater Nanoparticles in the Far-Field at the Nevada Test Site: Mechanism for Radionuclide Transport. Environmental Science & Technology, 2009, 43, 1293-1298.	4.6	69
71	Decoupled geochemical behavior of As and Cu in hydrothermal systems. Geology, 2009, 37, 707-710.	2.0	108
72	Chemical and structural characterization of As immobilization by nanoparticles of mackinawite (FeSm). Chemical Geology, 2009, 268, 116-125.	1.4	63

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73	A proposed new type of arsenian pyrite: Composition, nanostructure and geological significance. Geochimica Et Cosmochimica Acta, 2008, 72, 2919-2933.	1.6	278
74	The chemical stability of coffinite, USiO4Â·nH2O; 0<n<2, associated with organic matter: A case study from Grants uranium region, New Mexico, USA. Chemical Geology, 2008, 251, 33-49.	1.4	64
75	Effects of ionizing radiation on the hollandite structure-type: Ba0.85Cs0.26Al1.35Fe0.77Ti5.90O16. American Mineralogist, 2008, 93, 241-247.	0.9	22
76	Spectroscopic ellipsometry characterization of the optical properties and thermal stability of ZrO2 films made by ion-beam assisted deposition. Applied Physics Letters, 2008, 92, .	1.5	67
77	Dissolution of radiation-damaged zircon in lateritic soils. American Mineralogist, 2007, 92, 1978-1989.	0.9	43
78	Radiation damage and alteration of zircon from a 3.3ÂGa porphyritic granite from the Jack Hills, Western Australia. Chemical Geology, 2007, 236, 92-111.	1.4	55
79	Fate of trace elements during alteration of uraninite in a hydrothermal vein-type U-deposit from Marshall Pass, Colorado, USA. Geochimica Et Cosmochimica Acta, 2007, 71, 4954-4973.	1.6	30
80	Alteration of UO2+x under oxidizing conditions, Marshall Pass, Colorado, USA. Journal of Alloys and Compounds, 2007, 444-445, 584-589.	2.8	20
81	Spectroscopic and Chemical Imaging Analysis of Lithium Iron Triphosphate. Journal of Physical Chemistry C, 2007, 111, 1049-1054.	1.5	57
82	Novel Lithium Iron Pyrophosphate (LiFe_{1.5}P₂O₇) as a Positive Electrode for Li-Ion Batteries. Chemistry of Materials, 2007, 19, 5319-5324.	3.2	45
83	Summertime carbonaceous aerosols collected in the marine boundary layer of the Arctic Ocean. Journal of Geophysical Research, 2007, 112, .	3.3	25
84	Colloid Transport of Plutonium in the Far-Field of the Mayak Production Association, Russia. Science, 2006, 314, 638-641.	6.0	395
85	Adsorbed U(VI) Surface Species on Muscovite Identified by Laser Fluorescence Spectroscopy and Transmission Electron Microscopy. Environmental Science & Technology, 2006, 40, 4646-4652.	4.6	55
86	Structural Characteristics of Lithium Nickel Phosphate Studied Using Analytical Electron Microscopy and Raman Spectroscopy. Chemistry of Materials, 2006, 18, 3788-3794.	3.2	74
87	The mechanisms of reduction of hexavalent chromium by green rust sodium sulphate: Formation of Cr-goethite. Geochimica Et Cosmochimica Acta, 2006, 70, 3582-3592.	1.6	110
88	Formation of V2O3 nanocrystals by thermal reduction of V2O5 thin films. Solid State Communications, 2006, 137, 645-649.	0.9	33
89	Structural Stability and Phase Transitions in WO3Thin Films. Journal of Physical Chemistry B, 2006, 110, 10430-10435.	1.2	239
90	Investigation of Temperature Induced Structural Transformations in Tungsten Oxide (WO3) Thin Films. ECS Transactions, 2006, 1, 37-42.	0.3	2

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91	Alteration of Coffinite (USiO₄) Under Reducing and Oxidizing Conditions. Materials Research Society Symposia Proceedings, 2006, 985, 1.	0.1	1
92	Synthesis, Structure, and Electrochemical Properties of Li4Ti5O12. Materials Research Society Symposia Proceedings, 2006, 973, 1.	0.1	0
93	Radiation-induced decomposition of U(VI) alteration phases of UO2. Materials Research Society Symposia Proceedings, 2006, 932, 1.	0.1	4
94	The fate of the epsilon phase (Mo-Ru-Pd-Tc-Rh) in the UO2 of the Oklo natural fission reactors. Radiochimica Acta, 2006, 94, 749-753.	0.5	30
95	Thermal behavior of metal nanoparticles in geologic materials. Geology, 2006, 34, 1033.	2.0	105
96	THE APPLICATION OF HRTEM TECHNIQUES AND NANOSIMS TO CHEMICALLY AND ISOTOPICALLY CHARACTERIZE GEOBACTER SULFURREDUCENS SURFACES. Canadian Mineralogist, 2005, 43, 1631-1641.	0.3	23
97	Radiation effects in ferrate garnet. Journal of Nuclear Materials, 2005, 336, 251-260.	1.3	44
98	Electron microscopy investigation of structural transformations in tungsten oxide (WO3) thin films. Physica Status Solidi A, 2005, 202, R108-R110.	1.7	13
99	Microscale characterization of uranium(VI) silicate solids and associated neptunium(V). Radiochimica Acta, 2005, 93, .	0.5	33
100	Solubility of gold in arsenian pyrite. Geochimica Et Cosmochimica Acta, 2005, 69, 2781-2796.	1.6	724
101	Radiation-induced decomposition of U(VI) phases to nanocrystals of UO2. Earth and Planetary Science Letters, 2005, 240, 521-528.	1.8	14
102	â€œInvisibleâ€•gold revealed: Direct imaging of gold nanoparticles in a Carlin-type deposit. American Mineralogist, 2004, 89, 1359-1366.	0.9	279
103	Direct Identification of Trace Metals in Fine and Ultrafine Particles in the Detroit Urban Atmosphere. Environmental Science & Technology, 2004, 38, 2289-2297.	4.6	129
104	Nanoscale occurrence of Pb in an Archean zircon. Geochimica Et Cosmochimica Acta, 2004, 68, 4679-4686.	1.6	55
105	Anoxic dissolution processes of biotite: implications for Fe behavior during Archean weathering. Earth and Planetary Science Letters, 2004, 224, 117-129.	1.8	39
106	Nanoscale Heavy Metal Phases on Atmospheric and Groundwater Colloids. ACS Symposium Series, 2004, , 97-101.	0.5	0
107	Ion-beam and electron-beam irradiation of synthetic britholite. Journal of Nuclear Materials, 2003, 322, 180-188.	1.3	51
108	Application of High-Angle Annular Dark Field Scanning Transmission Electron Microscopy, Scanning Transmission Electron Microscopy-Energy Dispersive X-ray Spectrometry, and Energy-Filtered Transmission Electron Microscopy to the Characterization of Nanoparticles in the Environment. Environmental Science & Technology, 2003, 37, 786-791.	4.6	169

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109	Iron oxidation state of a 2.45-Byr-old paleosol developed on mafic volcanics. Geochimica Et Cosmochimica Acta, 2003, 67, 213-221.	1.6	42
110	Biotite dissolution processes and mechanisms in the laboratory and in nature: Early stage weathering environment and vermiculitization. American Mineralogist, 2003, 88, 377-386.	0.9	82
111	The effect of ionizing radiation on uranophane. American Mineralogist, 2003, 88, 159-166.	0.9	15
112	Nanoscale mineralogy of arsenic in a region of New Hampshire with elevated As-concentrations in the groundwater. American Mineralogist, 2003, 88, 1844-1852.	0.9	31
113	Oxygen isotopic composition of nano-scale uraninite at the Oklo-OkÃ©lobondo natural fission reactors, Gabon. American Mineralogist, 2003, 88, 1583-1590.	0.9	12
114	Accommodation of Uranium into the Garnet Structure. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	25
115	Ion Irradiation Effects in Synthetic Garnets Incorporating Actinides. Materials Research Society Symposia Proceedings, 2002, 713, 1.	0.1	3
116	Uraninite and Fullerene in Atmospheric Particulates. Environmental Science & Technology, 2002, 36, 4943-4947.	4.6	93
117	Cesium and Strontium Incorporation into Uranophane, Ca[(UO₂)(SiO₃OH)]₂.5H₂O. Journal of Nuclear Science and Technology, 2002, 39, 504-507.	0.7	20
118	Ion irradiation effects in natural garnets: Comparison with zircon. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 600-605.	0.6	12
119	Ion irradiation-induced amorphization and nano-crystal formation in garnets. Journal of Nuclear Materials, 2002, 303, 177-187.	1.3	47
120	Direct evidence of late Archean to early Proterozoic anoxic atmosphere from a product of 2.5 Ga old weathering. Earth and Planetary Science Letters, 2001, 184, 523-528.	1.8	71
121	Seafloor hydrothermal alteration at an Archaean mid-ocean ridge. Journal of Metamorphic Geology, 2001, 19, 583-599.	1.6	98
122	The effect of partial pressure of carbon dioxide on anorthite dissolution.. Journal of the Mineralogical Society of Japan, 1999, 21, 1-8.	1.0	12