

# Ikuji Takagi

## List of Publications by Year in descending order

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77  
papers

681  
citations

687363

13  
h-index

752698

20  
g-index

77  
all docs

77  
docs citations

77  
times ranked

647  
citing authors

#	ARTICLE	IF	CITATIONS
1	Solubility of Zirconium(IV) Hydrous Oxides. Journal of Nuclear Science and Technology, 2007, 44, 90-94.	1.3	66
2	Diffusion behavior of actinide and lanthanide elements in molten salt for reductive extraction. Journal of Alloys and Compounds, 2007, 444-445, 557-560.	5.5	32
3	Zirconium Solubility in Ternary Aqueous System of Zr(IV)-OH-Carboxylates. Journal of Nuclear Science and Technology, 2009, 46, 142-148.	1.3	28
4	A combined technique of nuclear reaction analysis and plasma-driven permeation for a quantitative study on deuterium trapping. Nuclear Instruments & Methods in Physics Research B, 1994, 84, 393-399.	1.4	24
5	Hydrolysis Constant and Coordination Geometry of Zirconium(IV). Journal of Nuclear Science and Technology, 2008, 45, 735-739.	1.3	23
6	Systematics of Hydrolysis Constants of Tetravalent Actinide Ions. Journal of Nuclear Science and Technology, 2005, 42, 626-635.	1.3	21
7	Thermal conductivity of ceramics during irradiation. Fusion Engineering and Design, 2006, 81, 321-325.	1.9	21
8	Electron spin resonance measurement of irradiation defects in vitreous silica irradiated with neutrons. Journal of Nuclear Materials, 2004, 325, 169-173.	2.7	18
9	Deuterium Plasma-Driven Permeation in Heliotron E During Discharge Cleaning and in a Small Plasma Device. Fusion Science and Technology, 1994, 25, 137-146.	0.6	16
10	Analysis of Sorption Behavior of Cesium Ion on Mineral Components of Granite. Journal of Nuclear Science and Technology, 2007, 44, 641-648.	1.3	16
11	Electron spin resonance measurement of irradiation defects in vitreous silica irradiated with neutrons and ion beams. Journal of Nuclear Materials, 2004, 329-333, 988-992.	2.7	15
12	Gamma-ray tolerance of CdS/CdTe photodiodes for radiation tolerant compact image sensor with field emitter array. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 635-638.	0.8	14
13	Production behavior of irradiation defects in vitreous silica under ion beam irradiation. Journal of Nuclear Materials, 2003, 312, 97-102.	2.7	13
14	Solubility of Thorium(IV) in the Presence of Oxalic and Malonic Acids. Journal of Nuclear Science and Technology, 2009, 46, 1085-1090.	1.3	13
15	Detection of Polynuclear Zirconium Hydroxide Species in Aqueous Solution by Desktop ESI-MS. Journal of Nuclear Science and Technology, 2010, 47, 1211-1218.	1.3	13
16	Hydrogen traps in ion-irradiated F82H steel observed by NRA. Journal of Nuclear Materials, 2013, 442, S33-S37.	2.7	13
17	Laboratory Enrichment of Radioactive Assemblages and Estimation of Thorium and Uranium Radioactivity in Fractions Separated from Placer Sands in Southeast Bangladesh. Natural Resources Research, 2015, 24, 209-220.	4.7	13
18	Sorption of Eu <sup>3+</sup> on Na-montmorillonite studied by time-resolved laser fluorescence spectroscopy and surface complexation modeling. Journal of Nuclear Science and Technology, 2016, 53, 592-601.	1.3	13

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19	In-situ depth-profiling of deuterium in nickel exposed to RF plasma. Journal of Nuclear Materials, 1991, 179-181, 319-321.	2.7	11
20	Depth profiles of trapped deuterium in nickel bombarded with helium-3. Journal of Nuclear Materials, 1993, 200, 223-228.	2.7	10
21	Analysis of Sorption Behavior of Cesium and Iodide Ions on Pumice Tuff. Journal of Nuclear Science and Technology, 2011, 48, 950-957.	1.3	10
22	Deuterium Trapping in Rolled Polycrystalline Tungsten Exposed to Low Energy Plasma. Plasma and Fusion Research, 2012, 7, 1405105-1405105.	0.7	10
23	Deuterium Retention and Diffusion in ETP-10 Graphite Exposed to RF Plasma at Room Temperature. Fusion Science and Technology, 2002, 41, 902-906.	1.1	9
24	Asymmetric surface recombination of hydrogen on palladium exposed to plasma. Journal of Nuclear Materials, 2003, 313-316, 102-106.	2.7	9
25	Electron spin resonance measurement of radiation-induced defects and reactions in vitreous silica irradiated with ion beams. Journal of Nuclear Materials, 2008, 374, 293-297.	2.7	9
26	Effect of solid phase transformation on the solubility product of thorium hydrous oxide at 363 K. Journal of Nuclear Science and Technology, 2016, 53, 1787-1793.	1.3	9
27	A Simple Model for Hydrogen Re-distribution in Zirconium-lined Fuel Claddings. Journal of Nuclear Science and Technology, 2002, 39, 71-75.	1.3	8
28	TOF measurement of electron volt energy hydrogen atoms reflected by stainless-steel surface. Nuclear Instruments & Methods in Physics Research B, 2005, 232, 173-177.	1.4	8
29	Electron spin resonance measurement of irradiation defects produced in quartz crystal. Nuclear Instruments & Methods in Physics Research B, 2005, 232, 317-321.	1.4	8
30	Production and reaction kinetics of radiation-induced defects in $\alpha$ -alumina and sapphire under ion beam irradiation. Journal of Nuclear Materials, 2008, 373, 157-163.	2.7	8
31	Discrete Fragment Model for Complex Formation of Europium(III) with Humic Acid. Journal of Nuclear Science and Technology, 2008, 45, 718-724.	1.3	8
32	Deuterium recombination coefficients on tungsten exposed to RF plasma. Journal of Nuclear Materials, 2011, 417, 564-567.	2.7	8
33	A Simple Model for Hydrogen Re-distribution in Zirconium-lined Fuel Claddings.. Journal of Nuclear Science and Technology, 2002, 39, 71-75.	1.3	8
34	Solubility of Zirconium(IV) Hydrous Oxides. Journal of Nuclear Science and Technology, 2007, 44, 90-94.	1.3	8
35	Hydrolysis Constant and Coordination Geometry of Zirconium(IV). Journal of Nuclear Science and Technology, 2008, 45, 735-739.	1.3	8
36	Diffusive Behaviors of Deuterium in Nickel under Irradiation of Helium-3. Journal of Nuclear Science and Technology, 1992, 29, 947-956.	1.3	7

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37	Observations of trapped deuterium in nickel bombarded with $^3\text{He}$ and hydrogen ions at an elevated temperature. <i>Journal of Nuclear Materials</i> , 1994, 212-215, 1411-1415.	2.7	7
38	Discrete fragment model for apparent formation constants of actinide ions with humic substances. <i>Radiochimica Acta</i> , 2015, 103, 411-421.	1.2	7
39	Solubilities and solubility products of thorium hydroxide under moderate temperature conditions. <i>Radiochimica Acta</i> , 2018, 106, 655-667.	1.2	7
40	Diffusive Behaviors of Deuterium in Nickel under Irradiation of Helium-3.. <i>Journal of Nuclear Science and Technology</i> , 1992, 29, 947-956.	1.3	7
41	Production behavior of irradiation defects in $\hat{\text{I}}\pm$ -alumina and sapphire under ion beam irradiation. <i>Journal of Nuclear Materials</i> , 2004, 326, 106-113.	2.7	6
42	Measurement of hydrogen permeation due to atomic flux using permeation probe in the spherical tokamak QUEST. <i>Fusion Engineering and Design</i> , 2010, 85, 950-955.	1.9	6
43	Solubility and Solubility-Limiting Solid Phase in M(IV)-OH-Dicarboxylate Ternary Aqueous System. <i>Journal of Nuclear Science and Technology</i> , 2011, 48, 993-1003.	1.3	6
44	Characteristic of a pdCu membrane as atomic hydrogen probe for QUEST. <i>Nuclear Materials and Energy</i> , 2016, 9, 104-108.	1.3	6
45	Systematics of Hydrolysis Constants of Tetravalent Actinide Ions. <i>Journal of Nuclear Science and Technology</i> , 2005, 42, 626-635.	1.3	6
46	Measurement and Analysis of Formation Constants of Europium with Carboxylates. <i>Journal of Nuclear Science and Technology</i> , 2005, 42, 724-731.	1.3	6
47	Measurement and Analysis of Formation Constants of Europium with Carboxylates. <i>Journal of Nuclear Science and Technology</i> , 2005, 42, 724-731.	1.3	5
48	Experiments on deuterium trapping in helium-irradiated copper. <i>Fusion Engineering and Design</i> , 2006, 81, 785-789.	1.9	5
49	Hydrogen $\hat{\text{C}}$ deuterium exchange on plasma-exposed W and SS surface. <i>Journal of Nuclear Materials</i> , 2015, 463, 1125-1128.	2.7	5
50	Research project on development of radiation tolerant compact image sensor with a field emitter array. , 2015, , .		5
51	Radiation tolerance of compact image sensor with field emitter array and cadmium telluride-based photoconductor. , 2016, , .		5
52	Hydrogen diffusivity in oxide layers formed in Zr alloy in air or steam. <i>Journal of Nuclear Materials</i> , 2017, 494, 79-86.	2.7	5
53	Zirconium Solubility in Ternary Aqueous System of Zr(IV)-OH-Carboxylates. <i>Journal of Nuclear Science and Technology</i> , 2009, 46, 142-148.	1.3	5
54	Migration of Radionuclide through Two-Layered Geologic Media. <i>Journal of Nuclear Science and Technology</i> , 1984, 21, 139-147.	1.3	4

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55	Trapping of Hydrogen in Molybdenum Bombarded with Helium-3 Ions. Fusion Science and Technology, 2002, 41, 897-901.	1.1	4
56	Reaction kinetics of radiation-induced defects in vitreous silica under ion beam irradiation. Journal of Nuclear Materials, 2009, 384, 19-24.	2.7	4
57	Irradiation effects on thermal diffusivity and positron annihilation lifetime in ceramics induced by neutron and 30 MeV electron. Journal of Nuclear Science and Technology, 2012, 49, 595-601.	1.3	4
58	In situ observation of deuterium trapping in self-ion irradiated tungsten. Journal of Nuclear Materials, 2013, 442, S246-S250.	2.7	4
59	Effect of Annealing on Thermal Diffusivity in Ceramics Irradiated by Electrons and Neutrons. Energy Procedia, 2015, 71, 320-327.	1.8	4
60	The solubilities and solubility products of zirconium hydroxide and oxide after aging at 278, 313, and 333â€°K. Radiochimica Acta, 2016, 104, 183-193.	1.2	4
61	Discrete Fragment Model for Complex Formation of Europium(III) with Humic Acid. Journal of Nuclear Science and Technology, 2008, 45, 718-724.	1.3	4
62	Formation Constants of Eu(III)â€“Carboxylates Determined by Ion-selective Liquid Membrane Electrode. Chemistry Letters, 2011, 40, 870-871.	1.3	3
63	Hydrogen trapping in 3He-irradiated Fe. Nuclear Instruments & Methods in Physics Research B, 2013, 314, 117-121.	1.4	3
64	Determination of trapping energy for deuterium in hydrogen-bombarded nickel. Journal of Nuclear Materials, 1995, 220-222, 908-911.	2.7	2
65	Simulated Waste Glass Corrosion in Humic Acid Solution using Rutherford Backscattering Spectrometry. Journal of Nuclear Science and Technology, 2004, 41, 837-842.	1.3	2
66	In situ deuterium observation in deuterium-implanted tungsten. Nuclear Instruments & Methods in Physics Research B, 2013, 315, 121-125.	1.4	2
67	Detection of Polynuclear Zirconium Hydroxide Species in Aqueous Solution by Desktop ESI-MS. Journal of Nuclear Science and Technology, 2010, 47, 1211-1218.	1.3	2
68	Development of CdTe based photoconductive target for radiation tolerant compact image sensors. , 2016, , .		1
69	Robustness of field emitter arrays against high-energy X-ray irradiation at high dose rate. , 2017, , .		1
70	System for Evaluation of Electron Emission Properties of Field Emitter Arrays under X-ray Irradiation. Journal of the Vacuum Society of Japan, 2017, 60, 328-333.	0.3	1
71	Recent progress in development of radiation tolerant image sensor with field emitter array. , 2018, , .		1
72	Operation of field emitter arrays under high dose rate gamma-ray irradiation. , 2018, , .		1

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73	Gamma-Ray Irradiation Effects of CdS/CdTe Photodiode for Radiation Tolerant FEA Image Sensor. , 2018, , .		1
74	Migration of radionuclide through two-layered geologic media.. Journal of Nuclear Science and Technology, 1984, 21, 139-147.	1.3	1
75	Solubility and Solubility-Limiting Solid Phase in M(IV)-OH-Dicarboxylate Ternary Aqueous System. Journal of Nuclear Science and Technology, 2011, 48, 993-1003.	1.3	1
76	Benchmark profiles for advection-dispersion migration of radionuclides through two-layered geologic media. Journal of Environmental Radioactivity, 1987, 5, 87-103.	1.7	0
77	Depth profile of disorders in silicon induced by O+ and Si+ ion bombardments. Applied Radiation and Isotopes, 1995, 46, 545-546.	1.5	0