

Kiminori Sato

List of Publications by Year in descending order

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85
papers

1,126
citations

331538

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86
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docs citations

86
times ranked

746
citing authors

#	ARTICLE	IF	CITATIONS
1	Nano- and micro-scale free volume in ultrafine grained Cu-1wt.%Pb alloy deformed by equal channel angular pressing. <i>Acta Materialia</i> , 2009, 57, 5706-5717.	3.8	83
2	Simultaneously increasing the magnetization and coercivity of bulk nanocomposite magnets via severe plastic deformation. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	77
3	Positronium Formed by Recombination of Positron-Electron Pairs in Polymers. <i>Physical Review Letters</i> , 2006, 96, 228302.	2.9	62
4	Molecular Mechanism of Heavily Adhesive Cs: Why Radioactive Cs is not Decontaminated from Soil. <i>Journal of Physical Chemistry C</i> , 2013, 117, 14075-14080.	1.5	56
5	Probing the Elemental Environment around the Free Volume in Polymers with Positron Annihilation Angle-Momentum Correlation Spectroscopy. <i>Macromolecules</i> , 2009, 42, 4853-4857.	2.2	50
6	Positron-annihilation studies of stable Al-based icosahedral quasicrystals. <i>Physical Review B</i> , 1999, 59, 6712-6716.	1.1	40
7	Interlaboratory comparison of positron annihilation lifetime measurements for synthetic fused silica and polycarbonate. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	39
8	Positron-Annihilation Study of Icosahedral AlPdMn Alloys. <i>Physical Review Letters</i> , 1997, 79, 2269-2272.	2.9	38
9	Study of an Order-Disorder Phase Transition on an Atomic Scale: The Example of Decagonal Al-Ni-Co Quasicrystals. <i>Physical Review Letters</i> , 2004, 92, 127403.	2.9	36
10	X-ray double phase retarders to compensate for off-axis aberration. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 33-37.	1.0	34
11	X-ray four-quadrant diamond phase-retarder system to compensate for off-axis and chromatic aberrations. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2002, 58, 146-154.	0.3	32
12	Element-specific study of local segmental dynamics of polyethylene terephthalate upon physical aging. <i>Journal of Chemical Physics</i> , 2012, 137, 104906.	1.2	32
13	Demonstration of X-ray linear dichroism imaging with hard X-rays. <i>Journal of Synchrotron Radiation</i> , 2000, 7, 368-373.	1.0	27
14	Pore interconnectivity of nanoclustering silica porous films as studied by positronium time-of-flight spectroscopy. <i>Journal of Applied Physics</i> , 2005, 98, 094307.	1.1	27
15	Grain-Boundary Structures Associated with Ionic Transport in Gd-Doped Ceria Nanostructured Electrolyte. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5734-5738.	1.5	27
16	Positronium time-of-flight measurements of porous low-k films. <i>Applied Physics Letters</i> , 2003, 83, 4966-4968.	1.5	26
17	Rheological Mechanism of Long-Term Self-Assembly in Saponite Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22954-22959.	1.5	26
18	Origin of Organism-Dependent Biogenic Silica Quartz Formation. <i>Journal of Physical Chemistry B</i> , 2011, 115, 14874-14877.	1.2	25

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19	Diffusion-Reaction of Water Molecules in Angstrom Pores as Basic Mechanism of Biogenic Quartz Formation. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18131-18135.	1.5	25
20	Positron annihilation study of defects and Si nanoprecipitation in sputter-deposited silicon oxide films. <i>Chemical Physics Letters</i> , 2003, 379, 359-363.	1.2	22
21	Quantitative Elucidation of Cs Adsorption Sites in Clays: Toward Sophisticated Decontamination of Radioactive Cs. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1270-1274.	1.5	22
22	Atomic-scale structural evolution in amorphous Nd ₉ Fe ₈₅ B ₆ subjected to severe plastic deformation at room temperature. <i>Applied Physics Letters</i> , 2009, 94, 231904.	1.5	21
23	Nanocrystallization mechanism of amorphous Fe ₇₈ B ₁₃ Si ₉ . <i>Applied Physics Letters</i> , 2009, 94, .	1.5	20
24	Long-term self-assembly of inorganic layered materials influenced by the local states of the interlayer cations. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10959-10964.	1.3	20
25	Tunable states of interlayer cations in two-dimensional materials. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	19
26	Anomalous packing state in Ce-Ga-Cu bulk metallic glasses. <i>Intermetallics</i> , 2017, 84, 25-29.	1.8	16
27	Carbon dioxide adsorption in open nanospaces formed by overlap of saponite clay nanosheets. <i>Communications Chemistry</i> , 2020, 3, .	2.0	13
28	Development of a high-resolution x-ray imaging system with a charge-coupled-device detector coupled with crystal x-ray magnifiers. <i>Review of Scientific Instruments</i> , 2000, 71, 4449.	0.6	12
29	Probing Charge-State Distribution at Grain Boundaries Varied with Dopant Concentration for Ceria Ceramics. <i>Journal of Physical Chemistry C</i> , 2017, 121, 20407-20412.	1.5	11
30	Positron age-momentum correlation studies of free volumes in polymers. <i>Radiation Physics and Chemistry</i> , 2009, 78, 1085-1087.	1.4	10
31	Study of Salt Precipitation in Polymer Electrolytes Based on Poly(ethylene oxide) and EMImTf Ionic Liquid. <i>Journal of Physical Chemistry B</i> , 2018, 122, 7009-7014.	1.2	10
32	Vacancies and atomic processes in intermetallics – From crystals to quasicrystals and bulk metallic glasses. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2290-2299.	0.7	9
33	Positron-Annihilation Studies of Frank-Kasper-Type Quasicrystals of the Mg-Zn-Ga-Al and the Mg-Zn-Rare-Earth System. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 259-262.	0.8	8
34	Nanocrystallization-induced structural evolution of intergranular amorphous phase in Fe ₇₈ B ₁₃ Si ₉ alloy. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 1882-1885.	1.5	8
35	Molecular studies of Cs adsorption sites in inorganic layered materials: the influence of solution concentration. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 18481-18486.	1.3	8
36	Evidence for Enhanced Matrix Diffusion in Geological Environment. <i>Journal of the Physical Society of Japan</i> , 2013, 82, 014901.	0.7	7

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37	Pore structure development of silica particles below the isoelectric point. <i>Microporous and Mesoporous Materials</i> , 2018, 267, 257-264.	2.2	7
38	Impact of crystallization method on the strain, defect formation, and thermoluminescence of YAG:Ce crystals. <i>Journal of Alloys and Compounds</i> , 2020, 849, 156600.	2.8	7
39	Unusual volume change associated with crystallization in Ce-Ga-Cu bulk metallic glass. <i>Intermetallics</i> , 2017, 88, 1-5.	1.8	6
40	The role of open spaces to glass-forming ability in bulk metallic glasses. <i>Intermetallics</i> , 2018, 100, 112-115.	1.8	6
41	Structural reconfigurations of nanosheet arrays in layered minerals caused by wave irradiation: desorption mechanism of Cs from nanosheet edges. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 16345-16352.	1.3	6
42	X-ray magnetic circular dichroism imaging with hard X-rays. <i>Journal of Synchrotron Radiation</i> , 2001, 8, 1021-1026.	1.0	5
43	Free Volumes Associated with Sintering in Gadolinium Doped Ceria Solid Solutions. <i>Journal of Nanomaterials</i> , 2010, 2010, 1-5.	1.5	5
44	TRANSIENT STRUCTURAL EVOLUTION UPON THERMAL DEHYDRATION IN LAYERED-HECTORITE NANOPARTICLES. <i>International Journal of Nanoscience</i> , 2012, 11, 1240033.	0.4	5
45	INDICATION OF CESIUM ADSORPTION INTO ANGSTROM-SCALE OPEN SPACES IN SAPONITE CLAY MINERAL. <i>International Journal of Nanoscience</i> , 2012, 11, 1240034.	0.4	5
46	Study of Alkali-Metal Vapor Diffusion into Glass Materials. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 086601.	0.8	5
47	Positron annihilation studies of icosahedral quasicrystals and their approximants in the Al ₆₅ Cu ₂₀ Ru ₁₅ (Si) alloy systems. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 1899-1905.	0.7	4
48	Atomic transfer through interfacial free volumes in Sn _{65.4} Bi _{34.6} eutectic systems. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 395234.	0.7	4
49	Improving the interfacial structure of nanocomposite magnets on an atomic scale. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 325003.	1.3	4
50	Enhanced Adhesivity of Water Molecules Confined in Angstrom-Scale Open Spaces Formed by Two-Dimensional Nanosheets. <i>Journal of Physical Chemistry C</i> , 2016, 120, 27509-27514.	1.5	4
51	Origin of enhanced boric acid adsorption in light-burned magnesium oxide. <i>Journal of Chemical Physics</i> , 2020, 153, 124704.	1.2	4
52	Characterization of Porous Silicate Low-k Films by Ellipsometric Porosimetry and Variable-energy Positron Annihilation Spectroscopy. <i>Materials Research Society Symposia Proceedings</i> , 2003, 788, 8191.	0.1	3
53	Positron annihilation spectroscopy in the study of quasicrystals and their related materials. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 3455-3460.	0.8	3
54	Mechanism of Bi Precipitation in Sn _{65.4} Bi _{34.6} Eutectic System. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 020221.	0.8	3

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55	Local Atomic Structures at Grain Boundaries in Gadolinium Doped Cerium Oxides. High Temperature Materials and Processes, 2010, 29, 373-380.	0.6	3
56	Influence of a magnetic field applied during the quenching process on the spin density and nanoscale structure of an amorphous Fe ϵ -B ribbon. Materials Letters, 2012, 87, 131-134.	1.3	3
57	Cesium Diffusion through Angstrom-Scale Open Spaces in Clay Minerals. Journal of the Physical Society of Japan, 2017, 86, 034901.	0.7	3
58	Molecular adsorption by biochar produced by eco-friendly low-temperature carbonization investigated using graphene structural reconfigurations. Green Chemistry Letters and Reviews, 2022, 15, 287-295.	2.1	3
59	Electric Field Assisted Reemission of Positrons from Silicon Carbide. Materials Science Forum, 2004, 445-446, 416-418.	0.3	2
60	Study of nanocrystallization transitions in amorphous Nd ₉ Fe ₈₅ B ₆ on an atomic scale. Journal Physics D: Applied Physics, 2009, 42, 215407.	1.3	2
61	Atomic-Scale Structural Evolution upon Crystallite Nucleation and Growth in Amorphous Fe ₇₈ B ₁₃ Si ₉ . Japanese Journal of Applied Physics, 2009, 48, 085505.	0.8	2
62	Irradiation toughening in a hierarchical structured alloy. Scripta Materialia, 2015, 108, 64-67.	2.6	2
63	Opal ϵ CT in chert beneath the toe of the Tohoku margin and its influence on the seismic aseismic transition in subduction zones. Geophysical Research Letters, 2017, 44, 687-693.	1.5	2
64	Alternation Mechanism of Lead Sulfate toward Lead Sulfide under Sulfuric Acid Conditions. Journal of Physical Chemistry C, 2020, 124, 19616-19621.	1.5	2
65	Evaluation methodology of diffusion coefficient of guest substances associated with angstrom-scale open spaces in materials by slow positron beam. Review of Scientific Instruments, 2020, 91, 083907.	0.6	2
66	Instantaneous Ex Situ Mineral Carbonation Relevant to Alkali Metals in Clay Nanoparticles. Journal of Physical Chemistry C, 2021, 125, 4878-4884.	1.5	2
67	Studies of Montmorillonite Mechanochemically Decomposed at Different Water Contents. Geomaterials, 2017, 07, 41-50.	0.4	2
68	Densification Dynamics of Gadolinium-Doped Ceria upon Sintering. Japanese Journal of Applied Physics, 2012, 51, 077301.	0.8	2
69	Energy dissipation of para-positronium in polymers and silica glass. Applied Physics Express, 2022, 15, 076001.	1.1	2
70	Densification Dynamics of Gadolinium-Doped Ceria upon Sintering. Japanese Journal of Applied Physics, 2012, 51, 077301.	0.8	1
71	Mechanism of glass-forming ability enhancement upon micro solute addition for Ce-Ga-Cu-Ni bulk metallic glasses. Intermetallics, 2019, 114, 106603.	1.8	1
72	Improvement of the far-infrared optical property for glasses by plasma-assisted dispersion of fluorocarbon species into the shallow surface. Review of Scientific Instruments, 2021, 92, 063905.	0.6	1

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73	Study of self-assembly for mechanochemically-milled saponite nanoparticles. , 0, , .		1
74	Positron lifetime studies for Ce-based bulk metallic glasses. , 0, , .		1
75	Hard X-ray Magnetic Linear Dichroism Imaging. Transactions of the Magnetics Society of Japan, 2002, 2, 238-239.	0.5	1
76	Study of Decomposition Mechanism for Inorganic-Layered Saponite Nanoparticle. Radioisotopes, 2014, 63, 389-397.	0.1	1
77	Development of Teaching Exercises for Radiation Education to Evaluate Radioactivity Concentration in Environmental Samples with Certified Reference Materials. Radioisotopes, 2018, 67, 583-589.	0.1	1
78	Positron-trapping property in Al-Mg-Zn alloy system. Journal of Alloys and Compounds, 2002, 342, 306-309.	2.8	0
79	Reduction of Local Stress Concentration on Nanosheet in Layered Nanoparticles with Water Molecules. International Journal of Nanoscience, 2015, 14, 1460019.	0.4	0
80	Self-Assembly Influenced by Geometrical Orientation of Nanosheet in Layered Nanoparticles. International Journal of Nanoscience, 2015, 14, 1460018.	0.4	0
81	Reverse-Martensitic Hardening of Austenitic Stainless Steel upon Up-quenching. Journal of the Physical Society of Japan, 2016, 85, 084601.	0.7	0
82	Open space formation with mechanically-bent single layer of inorganic minerals. AIP Conference Proceedings, 2019, , .	0.3	0
83	Effect of Silica Coating on the Mechanical Properties of Gamma-Irradiated Polypropylene. Radioisotopes, 2004, 53, 617-620.	0.1	0
84	Study of reversibility of self-assembly in saponite layered nanoparticles. , 0, , .		0
85	Development of Advanced Curriculum of Radiation Education for Training Science Teachers of Junior and Senior High Schools. Radioisotopes, 2017, 66, 633-640.	0.1	0