

Ken-ichi Saitow

List of Publications by Year in descending order

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74
papers

1,816
citations

236833

25
h-index

302012

39
g-index

75
all docs

75
docs citations

75
times ranked

1502
citing authors

#	ARTICLE	IF	CITATIONS
1	Study of inhomogeneity of supercritical water by small-angle x-ray scattering. Journal of Chemical Physics, 2000, 112, 4203-4211.	1.2	106
2	Phototriggered Self-Assembly of Hydrogen-Bonded Rosette. Journal of the American Chemical Society, 2004, 126, 11500-11508.	6.6	101
3	Effective Cooling Generates Efficient Emission: Blue, Green, and Red Light-Emitting Si Nanocrystals. Journal of Physical Chemistry C, 2009, 113, 8465-8470.	1.5	72
4	Raman spectral changes of neat CO ₂ across the ridge of density fluctuation in supercritical region. Chemical Physics Letters, 2000, 320, 323-327.	1.2	67
5	Silicon Nanoclusters Selectively Generated by Laser Ablation in Supercritical Fluid. Journal of Physical Chemistry B, 2005, 109, 3731-3733.	1.2	64
6	Gold Nanospheres and Nanonecklaces Generated by Laser Ablation in Supercritical Fluid. Journal of Physical Chemistry C, 2008, 112, 18340-18349.	1.5	64
7	White-blue electroluminescence from a Si quantum dot hybrid light-emitting diode. Applied Physics Letters, 2015, 106, .	1.5	58
8	Spectrum of Excess Partial Molar Absorptivity. I. Near Infrared Spectroscopic Study of Aqueous Acetonitrile and Acetone. Journal of Physical Chemistry B, 2009, 113, 11928-11935.	1.2	53
9	Photo-induced reactions of CH ₂ I ₂ in solution studied by the ultrafast transient absorption spectroscopy. Chemical Physics Letters, 1996, 262, 621-626.	1.2	52
10	Enhancement of Out-of-plane Mobility in P3HT Film by Rubbing: Aggregation and Planarity Enhanced with Low Regioregularity. Journal of Physical Chemistry C, 2015, 119, 7987-7995.	1.5	49
11	Performance of Si/PEDOT:PSS Hybrid Solar Cell Controlled by PEDOT:PSS Film Nanostructure. Journal of Physical Chemistry C, 2016, 120, 19043-19048.	1.5	46
12	White-Light-Emitting Silicon Nanocrystal Generated by Pulsed Laser Ablation in Supercritical Fluid: Investigation of Spectral Components As a Function of Excitation Wavelengths and Aging Time. Journal of Physical Chemistry C, 2012, 116, 3928-3934.	1.5	44
13	Local density enhancement in neat supercritical fluid due to attractive intermolecular interactions. Chemical Physics Letters, 2003, 368, 209-214.	1.2	43
14	Cost-Effective Synthesis of Silicon Quantum Dots. Chemistry of Materials, 2020, 32, 8382-8392.	3.2	43
15	Terahertz absorption spectra of supercritical CHF ₃ to investigate local structure through rotational and hindered rotational motions. Chemical Physics Letters, 2001, 341, 86-92.	1.2	42
16	Dynamics of Density Fluctuation of Supercritical Fluid Mapped on Phase Diagram. Journal of the American Chemical Society, 2004, 126, 422-423.	6.6	40
17	Solvent dependence of laser-synthesized blue-emitting Si nanoparticles: Size, quantum yield, and aging performance. Chemical Physics Letters, 2017, 674, 90-97.	1.2	36
18	Formation of benzene dimer cations in neat liquid benzene studied by femtosecond transient absorption spectroscopy. Chemical Physics Letters, 1997, 269, 298-304.	1.2	32

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19	Attractive and Repulsive Intermolecular Interactions of a Polar Molecule: A Short-Range Structure of Neat Supercritical CHF ₃ Investigated by Raman Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5770-5784.	1.1	31
20	130-fold enhancement of TiO ₂ photocatalytic activities by ball milling. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	31
21	Fractal of Gold Nanoparticles Controlled by Ambient Dielectricity: Synthesis by Laser Ablation as a Function of Permittivity. <i>Journal of Physical Chemistry C</i> , 2012, 116, 17252-17258.	1.5	30
22	Attractive and repulsive interactions among methanol molecules in supercritical state investigated by Raman spectroscopy and perturbed hard-sphere theory. <i>Journal of Chemical Physics</i> , 2005, 122, 104502.	1.2	29
23	Correlation time of density fluctuation for supercritical ethylene studied by dynamic light scattering. <i>Journal of Chemical Physics</i> , 2002, 116, 4985.	1.2	28
24	Uniaxial orientation of P3HT film prepared by soft friction transfer method. <i>Scientific Reports</i> , 2017, 7, 5141.	1.6	26
25	Mechanochemical Synthesis of Red-Light-Active Green TiO ₂ Photocatalysts with Disorder: Defect-Rich, with Polymorphs, and No Metal Loading. <i>Chemistry of Materials</i> , 2020, 32, 9190-9200.	3.2	26
26	Static inhomogeneity of supercritical ethylene studied by small-angle X-ray scattering. <i>Chemical Physics</i> , 2003, 286, 421-430.	0.9	24
27	How Are Hydrogen Bonds Perturbed in Aqueous NaClO ₄ Solutions Depending on the Concentration?: A Near Infrared Study of Water. <i>Journal of Solution Chemistry</i> , 2004, 33, 689-698.	0.6	23
28	Time Evolution of Density Fluctuation in Supercritical Region. I. Non-hydrogen-bonded Fluids Studied by Dynamic Light Scattering. <i>Journal of Physical Chemistry A</i> , 2005, 109, 83-91.	1.1	23
29	Enhancement of Out-of-Plane Mobilities of Three Poly(3-alkylthiophene)s and Associated Mechanism. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23351-23357.	1.5	23
30	One-pot facile synthesis of a concentrated Si nanoparticle solution. <i>Chemical Communications</i> , 2013, 49, 10302.	2.2	22
31	Designing Efficient Si Quantum Dots and LEDs by Quantifying Ligand Effects. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 1373-1388.	4.0	22
32	Si quantum dots with a high absorption coefficient: Analysis based on both intensive and extensive variables. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	21
33	Si-nanocrystal/P3HT hybrid films with a 50- and 12-fold enhancement of hole mobility and density: films prepared by successive drop casting. <i>Nanoscale</i> , 2015, 7, 15780-15788.	2.8	21
34	Performance of Si/PEDOT:PSS Solar Cell Controlled by Dipole Moment of Additives. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20130-20135.	1.5	20
35	Supercritical-fluid cell with device of variable optical path length giving fringe-free terahertz spectra. <i>Review of Scientific Instruments</i> , 2000, 71, 4061.	0.6	18
36	Time Evolution of Density Fluctuation in the Supercritical Region. 2. Comparison of Hydrogen- and Non-hydrogen-Bonded Fluids. <i>Journal of Physical Chemistry A</i> , 2005, 109, 7365-7370.	1.1	18

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37	Enhancement of fluorescence intensity by silicon particles and its size effect. <i>Chemical Communications</i> , 2014, 50, 1137-1140.	2.2	18
38	Mechano-synthesized orange TiO ₂ shows significant photocatalysis under visible light. <i>Scientific Reports</i> , 2018, 8, 15549.	1.6	18
39	Extraordinary Field Enhancement of TiO ₂ Porous Layer up to 500× Fold. <i>Advanced Optical Materials</i> , 2018, 6, 1800462.	3.6	17
40	Orange-Red Si Quantum Dot LEDs from Recycled Rice Husks. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 1765-1776.	3.2	17
41	Comparison of picosecond and nanosecond lasers for the synthesis of TiN sub-micrometer spherical particles by pulsed laser melting in liquid. <i>Applied Physics Express</i> , 2018, 11, 035001.	1.1	16
42	1% defect enriches MoS ₂ quantum dot: catalysis and blue luminescence. <i>Nanoscale</i> , 2020, 12, 4352-4358.	2.8	16
43	In situ multipurpose time-resolved spectrometer for monitoring nanoparticle generation in a high-pressure fluid. <i>Review of Scientific Instruments</i> , 2012, 83, 073110.	0.6	15
44	Brush Printing Creates Polarized Green Fluorescence: 3D Orientation Mapping and Stochastic Analysis of Conductive Polymer Films. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46598-46608.	4.0	15
45	Difference of Solvent Interactions of cis- and trans-1,2-Dichloroethylene in Supercritical CO ₂ Investigated by Raman Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2008, 112, 7980-7983.	1.2	14
46	Hole mobility enhancement of MEH-PPV film by heat treatment at <i>T</i> . <i>AIP Advances</i> , 2015, 5, .	0.6	13
47	Field enhancement of MoS ₂ : visualization of the enhancement and effect of the number of layers. <i>Nanoscale</i> , 2018, 10, 22215-22222.	2.8	13
48	Solvation Structures of cis- and trans-1,2-Dichloroethylene in Supercritical CO ₂ Investigated by Raman Spectroscopy and Attractive Energy Calculations. <i>Journal of Physical Chemistry B</i> , 2009, 113, 13291-13299.	1.2	12
49	Local enhancement effect in the photoluminescence intensity of Si quantum dots: Single Medusa-type particles investigated by in situ microscope spectrometer. <i>Chemical Physics Letters</i> , 2014, 591, 37-42.	1.2	12
50	Ligand Effects on Photoluminescence and Electroluminescence of Silicon Quantum Dots for Light-Emitting Diodes. <i>ACS Applied Nano Materials</i> , 2022, 5, 7787-7797.	2.4	12
51	Effect of hydrogen bonding on laser-induced transfer of 1-pyrenebutyric acid in solid polymers. <i>Chemical Physics Letters</i> , 1998, 291, 433-437.	1.2	11
52	Solvation of Esters and Ketones in Supercritical CO ₂ . <i>Journal of Physical Chemistry B</i> , 2016, 120, 785-792.	1.2	11
53	Development of a Polarized Raman Spectrometer for Supercritical Fluids Having High Critical Points. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 2801-2806.	0.8	10
54	Site-Selective Solvation in Supercritical CO ₂ Observed by Raman Spectroscopy: Phenyl Group Leads to Greater Attractive Energy than Chloro Group. <i>Journal of Physical Chemistry B</i> , 2010, 114, 16832-16837.	1.2	10

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55	Solute-Solvent Intermolecular Interactions in Supercritical Xe, SF ₆ , CO ₂ , and CHF ₃ Investigated by Raman Spectroscopy: Greatest Attractive Energy Observed in Supercritical Xe. <i>Journal of Physical Chemistry B</i> , 2010, 114, 8659-8666.	1.2	10
56	Si nanocrystal solution with stability for one year. <i>RSC Advances</i> , 2018, 8, 41299-41307.	1.7	10
57	Nanogap-Rich TiO ₂ Film for 2000-Fold Field Enhancement with High Reproducibility. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 8799-8809.	2.1	10
58	Large Field Enhancement of Nanocoral Structures on Porous Si Synthesized from Rice Husks. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 1105-1113.	4.0	10
59	Synthesis of Size-controlled Luminescent Si Nanocrystals from (HSiO _{1.5}) _n Polymers. <i>Chemistry Letters</i> , 2017, 46, 699-702.	0.7	9
60	Ultrapure Films of Polythiophene Derivatives are Born on a Substrate by Liquid Flow. <i>ACS Applied Energy Materials</i> , 2018, 1, 6881-6889.	2.5	9
61	Triplet exciton abstracts hydrogen from diphenylmethane doped in benzophenone crystal. <i>Chemical Physics Letters</i> , 1994, 229, 323-327.	1.2	8
62	Spectral Visualization of Near-Infrared Enhancement in 2D Layered WS ₂ . <i>ACS Applied Electronic Materials</i> , 2020, 2, 437-446.	2.0	8
63	Investigation of attractive and repulsive interactions associated with ketones in supercritical CO ₂ , based on Raman spectroscopy and theoretical calculations. <i>Journal of Chemical Physics</i> , 2013, 139, 054509.	1.2	7
64	Size-Selected Submicron Gold Spheres: Controlled Assembly onto Metal, Carbon, and Plastic Substrates. <i>ACS Omega</i> , 2019, 4, 14307-14311.	1.6	7
65	Cellulose-Templated Stable Foldable Oriented Films with Polarized RGB Luminescence. <i>Chemistry of Materials</i> , 2022, 34, 1052-1064.	3.2	6
66	Photodissociation of CH ₂ I ₂ and Subsequent Electron Transfer in Solution. <i>Chemistry - an Asian Journal</i> , 2008, 3, 696-709.	1.7	5
67	Significant substitution effects in dipolar and non-dipolar supercritical fluids. <i>Journal of Chemical Physics</i> , 2011, 134, 234508.	1.2	5
68	4D Microspectroscopy Explores Orientation and Aggregations in π -Conjugated Polymer Films Prepared by Brush Printing. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 653-660.	2.1	4
69	Fast, Economical, and Reproducible Sensing from a 2D Si Wire Array: Accurate Characterization by Single Wire Spectroscopy. <i>Analytical Chemistry</i> , 2022, 94, 6672-6680.	3.2	4
70	Significant difference in the attractive energies of ethane and ethanol in supercritical CO ₂ . <i>Journal of Supercritical Fluids</i> , 2017, 120, 328-334.	1.6	3
71	Nanosecond photo-fusion of microcrystals on a polymer film observed with time-resolved ultramicroscopy. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 145, 159-164.	2.0	2
72	Photochemical Hydrogen Abstraction in Benzophenone Single Crystal. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 277, 125-133.	0.3	1

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73	Local Structure of Supercritical Fluids and Nanomaterials Synthesis. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2015, 25, 215-224.	0.1	0
74	Local Structure of Supercritical Fluids Investigated by Translational, Rotational, and Vibrational Motions. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2006, 16, 120-130.	0.1	0