

Takafumi Aizawa

List of Publications by Year in descending order

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Temperature dependence of gas barrier property of clay-polymer composite coatings. <i>Applied Clay Science</i> , 2022, 226, 106571.	5.2	2
2	Analysis of Restitution Coefficient and Hardness of CO ₂ -Assisted Polymer Compression Products. <i>Journal of Chemical Engineering of Japan</i> , 2021, 54, 463-466.	0.6	1
3	Application of CO ₂ -Assisted Polymer Compression to Polylactic Acid and the Relationship between Crystallinity and Plasticization. <i>Compounds</i> , 2021, 1, 75-82.	1.9	1
4	Fabrication of Enzyme-Loaded Cartridges Using CO ₂ -Assisted Polymer Compression. <i>Technologies</i> , 2021, 9, 85.	5.1	3
5	Novel Strategy for Fabricating Multilayer Porous Membranes with Varying Porosity. <i>ACS Omega</i> , 2020, 5, 24461-24466.	3.5	7
6	New Design Method for Fabricating Multilayer Membranes Using CO ₂ -Assisted Polymer Compression Process. <i>Molecules</i> , 2020, 25, 5786.	3.8	3
7	Correlation between the Porosity and Permeability of a Polymer Filter Fabricated via CO ₂ -Assisted Polymer Compression. <i>Membranes</i> , 2020, 10, 391.	3.0	14
8	Process Development of CO ₂ -Assisted Polymer Compression for High Productivity: Improving Equipment and the Challenge of Numbering-Up. <i>Technologies</i> , 2019, 7, 39.	5.1	7
9	Peel and Penetration Resistance of Porous Polyethylene Terephthalate Material Produced by CO ₂ -Assisted Polymer Compression. <i>Molecules</i> , 2019, 24, 1384.	3.8	9
10	A new method for producing porous polymer materials using carbon dioxide and a piston. <i>Journal of Supercritical Fluids</i> , 2018, 133, 38-41.	3.2	13
11	Analysis of Sustained Release Behavior of Drug-Containing Tablet Prepared by CO ₂ -Assisted Polymer Compression. <i>Polymers</i> , 2018, 10, 1405.	4.5	12
12	Fabrication of porosity-controlled polyethylene terephthalate porous materials using a CO ₂ -assisted polymer compression method. <i>RSC Advances</i> , 2018, 8, 3061-3068.	3.6	11
13	Development of water vapor transmission rate measuring device using a quadrupole mass spectrometer and standard gas barrier films down to the 10 ⁻⁶ g m ⁻² day ⁻¹ level. <i>Review of Scientific Instruments</i> , 2017, 88, 043301.	1.3	19
14	Development of Clay-based Film and Its Application to Gas Barrier Layers of Composite Tanks. <i>Journal of the Japan Petroleum Institute</i> , 2017, 60, 121-126.	0.6	9
15	NMR Studies on Solution Structures of Methanol and Ethanol Saturated with CO ₂ . <i>Journal of Solution Chemistry</i> , 2014, 43, 1539-1549.	1.2	2
16	Effect of CO ₂ dissolution on electrical conductivity and self-diffusion coefficients of 1-butyl-3-methylimidazolium hexafluorophosphate ionic liquid. <i>Fluid Phase Equilibria</i> , 2013, 357, 76-79.	2.5	10
17	Multi-Step Passivation of Titanium in Dilute Sulphuric Acid. <i>Journal of the Electrochemical Society</i> , 2011, 158, C379.	2.9	0
18	Molecular motility and affinity of expanded carbon dioxide+ketone systems analyzed by molecular dynamics simulations. <i>Fluid Phase Equilibria</i> , 2010, 297, 172-177.	2.5	4

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19	Fabrication of nanostructured titania on flexible substrate by electrochemical anodization. Journal of Power Sources, 2010, 195, 5902-5908.	7.8	12
20	Liquid structures of 1-butyl-3-methylimidazolium tetrafluoroborate and carbon dioxide mixtures by X-ray diffraction measurements. Fluid Phase Equilibria, 2010, 297, 183-186.	2.5	7
21	Characterization of nanocrystalline indium tin oxide thin films prepared by ion beam sputter deposition method. Thin Solid Films, 2010, 518, 6891-6896.	1.8	17
22	Dependence of volume expansion on alkyl chain length and the existence of branched methyl group of CO ₂ -expanded ketone systems at 40Å°C. Journal of Supercritical Fluids, 2010, 55, 71-76.	3.2	23
23	Analysis of volume expansion mechanism of CO ₂ -acetate systems at 40Å°C. Journal of Supercritical Fluids, 2010, 55, 56-61.	3.2	18
24	Relation between Volume Expansion and Hydrogen Bond Networks for CO ₂ -Alcohol Mixtures at 40 Å°C. Journal of Physical Chemistry B, 2010, 114, 13628-13636.	2.6	28
25	Formation of Self-Ordered TiO ₂ Nanotubes by Electrochemical Anodization of Titanium in 2-Propanol/NH ₄ F. Journal of the Electrochemical Society, 2009, 156, K227.	2.9	14
26	Flow Visualization and Numerical Simulation of T-Junction Mixing of High-Temperature High-Pressure Water. Journal of Chemical Engineering of Japan, 2009, 42, 64-70.	0.6	5
27	Liquid Structure of 1-Butyl-3-methylimidazolium Hexafluorophosphate by Neutron Diffraction with H/D Isotopic Substitution Method. Analytical Sciences, 2008, 24, 1373-1376.	1.6	18
28	Nanostructure of Pure Iron Anodically Oxidized in Borate Buffer Solution and Annealed by Infrared Radiation. Journal of Nanoscience and Nanotechnology, 2008, 8, 493-502.	0.9	2
29	Direct observation of channel-tee mixing of high-temperature and high-pressure water. Journal of Supercritical Fluids, 2007, 43, 222-227.	3.2	31
30	Growth process of atomically flat anodic films on titanium under potentiostatical electrochemical treatment in H ₂ SO ₄ solution. Surface Science, 2007, 601, 5133-5141.	1.9	24
31	Proton concentration of supercritical water and high-concentrated carbon dioxide mixture using UV-Vis spectroscopy. Fluid Phase Equilibria, 2007, 257, 177-182.	2.5	10
32	Determination of Kamlet-Taft solvent parameters π^* of high pressure and supercritical water by the UV-Vis absorption spectral shift of 4-nitroanisole. Physical Chemistry Chemical Physics, 2006, 8, 2257-2264.	2.8	24
33	Melting point depression of ionic liquids confined in nanospaces. Chemical Communications, 2006, , 1828.	4.1	96
34	Estimation of Local Density Augmentation and Hydrogen Bonding between Pyridazine and Water under Sub- and Supercritical Conditions Using UV-Vis Spectroscopy. Analytical Sciences, 2006, 22, 1417-1423.	1.6	14
35	Phase Behavior of Xe Confined in Porous Vycor Glass Probed by ¹²⁹ Xe NMR Chemical Shift. Journal of the Physical Society of Japan, 2006, 75, 024603.	1.6	4
36	Local density augmentation of excited 1-(dimethylamino)naphthalene in supercritical water. Journal of Supercritical Fluids, 2006, 39, 206-210.	3.2	5

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37	Direct Evidence of Ion-dipole Interaction between Imidazolium Cations and Polar Molecules in Ionic Liquid Solutions by Means of Mass Spectrometric Analysis of Clusters. <i>Chemistry Letters</i> , 2005, 34, 706-707.	1.3	4
38	Water-induced Acceleration of Transport Properties in Hydrophobic 1-Butyl-3-methylimidazolium Hexafluorophosphate Ionic Liquid. <i>Chemistry Letters</i> , 2005, 34, 324-325.	1.3	38
39	NMR Spectroscopy of Compressed Fluids in Nanopore. <i>Bunseki Kagaku</i> , 2005, 54, 565-568.	0.2	2
40	Determination of fluid density confined in nanopore by means of NMR spectroscopy. <i>Chemical Physics Letters</i> , 2005, 408, 344-347.	2.6	10
41	Solution Structures of 1-Butyl-3-methylimidazolium Hexafluorophosphate Ionic Liquid Saturated with CO ₂ : A Experimental Evidence of Specific Anion-CO ₂ Interaction. <i>Journal of Physical Chemistry B</i> , 2005, 109, 13847-13850.	2.6	87
42	Temperature Dependence of Local Density Augmentation for Acetophenone N,N,N',N'-Tetramethylbenzidine Exciplex in Supercritical Water. <i>Journal of Physical Chemistry A</i> , 2005, 109, 7353-7358.	2.5	12
43	NMR studies on supercritical fluids in nanoporous materials. <i>E-Journal of Surface Science and Nanotechnology</i> , 2005, 3, 338-340.	0.4	1
44	Development of High-Pressure Electric Conductivity Cell and its Application: Pressure Effect of Carbon Dioxide on Electric Conductivity of Ionic Liquid. <i>Electrochemistry</i> , 2004, 72, 703-705.	1.4	13
45	Temperature dependence of local density augmentation around exciplex in supercritical carbon dioxide. <i>Fluid Phase Equilibria</i> , 2004, 219, 37-40.	2.5	5
46	Numerical simulation of two-dimensional piston effect and natural convection in a square cavity heated from one side. <i>International Communications in Heat and Mass Transfer</i> , 2004, 31, 151-160.	5.6	9
47	Window optical cell for absorption and emission studies of high-pressure liquids and supercritical fluids. <i>Journal of Supercritical Fluids</i> , 2004, 29, 313-317.	3.2	8
48	Local density augmentation around acetophenone N,N,N',N'-tetramethylbenzidine exciplex in supercritical water. <i>Chemical Physics Letters</i> , 2004, 393, 31-35.	2.6	14
49	¹⁹ F NMR chemical shifts of CF ₄ in CO ₂ over a wide pressure range at different temperatures. <i>Magnetic Resonance in Chemistry</i> , 2003, 41, 75-76.	1.9	4
50	Cosolvent effect on enhancement of reaction rate constant in near-critical region. <i>Journal of Supercritical Fluids</i> , 2003, 27, 247-253.	3.2	3
51	High-pressure NMR studies on solvation structure in supercritical carbon dioxide. <i>Fluid Phase Equilibria</i> , 2002, 194-197, 859-868.	2.5	18
52	One dimensional heat transfer on the thermal diffusion and piston effect of supercritical water. <i>International Journal of Heat and Mass Transfer</i> , 2002, 45, 3673-3677.	4.8	13
53	Pressure dependence of acetophenone N,N,N',N'-tetramethylbenzidine exciplex in supercritical carbon dioxide. <i>Chemical Physics Letters</i> , 2002, 354, 298-302.	2.6	7
54	Local density augmentation from fluorescence lifetime for anthracene N,N-dimethylaniline exciplex in supercritical carbon dioxide. <i>Chemical Physics Letters</i> , 2002, 357, 168-172.	2.6	10

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55	Corrosion on continuous supercritical water oxidation for polychlorinated biphenyls. High Pressure Research, 2001, 20, 393-401.	1.2	7
56	Noncatalytic organic rearrangement using supercritical water. High Pressure Research, 2001, 20, 155-166.	1.2	1
57	Determination of anisotropic solvation structure of octafluorotoluene in supercritical carbon dioxide by means of solvent-induced ¹⁹ F NMR chemical shift. Chemical Physics Letters, 2001, 338, 95-100.	2.6	12
58	A Unique Concentration Dependence of NMR Longitudinal Relaxation Time of Water in Supercritical Carbon Dioxide. Chemistry Letters, 2000, 29, 1320-1321.	1.3	5
59	Studies on Solute-Solvent Interactions in Gaseous and Supercritical Carbon Dioxide by High-Pressure ¹ H NMR Spectroscopy. Journal of Physical Chemistry B, 2000, 104, 2749-2758.	2.6	73
60	Acceleration of chemical reaction by AOT micelles under supercritical conditions. Chemical Engineering Science, 1999, 54, 2859-2864.	3.8	3
61	Supercritical water oxidation of polychlorinated biphenyls using hydrogen peroxide. Chemical Engineering Science, 1999, 54, 3079-3084.	3.8	85
62	An In Situ High-Pressure NMR Study of Hydrogen Bonding of Alcohols in Supercritical Carbon Dioxide.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 1426-1428.	0.0	2
63	Direct analysis of hydrogen transfer reaction from p-benzosemiquinone radical to p-benzoquinone by time-resolved CIDNP method. Spectrochimica Acta Part A: Molecular Spectroscopy, 1994, 50, 1443-1450.	0.1	2
64	Determination of the exchange integral by the low-field CIDNP in intramolecular hydrogen abstraction reaction of polymethylene-linked xanthone and xanthene. The Journal of Physical Chemistry, 1992, 96, 4884-4889.	2.9	13
65	The effect of the Coulomb force on the diffusional motion of radicals as studied by the solvent permittivity dependence of the CIDNP intensity. Chemical Physics Letters, 1992, 195, 16-20.	2.6	11