

Masaru Nakaiwa

List of Publications by Year in descending order

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103
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103
docs citations

103
times ranked

1407
citing authors

#	ARTICLE	IF	CITATIONS
1	Feasibility Study of Micro Kalina Cycle for Hot Spring Power Generation. Kagaku Kogaku Ronbunshu, 2021, 47, 143-147.	0.1	0
2	Evaluation of a power generation system that integrates multiple Kalina cycles and absorption heat pumps. Case Studies in Thermal Engineering, 2021, 28, 101363.	2.8	10
3	Economic Evaluation of Heat-Pump-Assisted Distillation Systems. Kagaku Kogaku Ronbunshu, 2018, 44, 303-307.	0.1	0
4	Heat and Mass Transfer of Internally Heat Integrated Distillation Column (HIDiC). Journal of the Japan Petroleum Institute, 2015, 58, 189-196.	0.4	4
5	Development of Simulator for Bio-Propylene Synthesis Process. Kagaku Kogaku Ronbunshu, 2013, 39, 126-131.	0.1	1
6	Recent Advances in Internally Heat-Integrated Distillation Columns (HIDiC) for Sustainable Development. Journal of Chemical Engineering of Japan, 2012, 45, 363-372.	0.3	35
7	Separation of Binary Azeotrope Mixture via Pressure-Swing Distillation with Heat Integration. Journal of Chemical Engineering of Japan, 2011, 44, 969-975.	0.3	10
8	Pinch analysis for bioethanol production process from lignocellulosic biomass. Applied Thermal Engineering, 2011, 31, 3332-3336.	3.0	28
9	Global Reaction Enhancement by Periodic Operation. Kagaku Kogaku Ronbunshu, 2011, 37, 125-127.	0.1	1
10	A Basic Study on the Applicability of Internal Heat-Integration to Batch Distillation. Kagaku Kogaku Ronbunshu, 2011, 37, 241-245.	0.1	1
11	Effect of Heat Transfer Characteristics on the Compression Process for an Internally Heat-Integrated Distillation Column. Kagaku Kogaku Ronbunshu, 2011, 37, 100-103.	0.1	1
12	Steady State Simulation of Reactive Distillation for TAME Synthesis. Kagaku Kogaku Ronbunshu, 2011, 37, 104-109.	0.1	2
13	Innovation in distillation processes. Synthesiology, 2009, 2, 55-63.	0.2	5
14	Synthesis and characterization of mesoporous carbon thin films from phloroglucinol/surfactant self-assembly. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 347, 142-145.	2.3	7
15	An improved branch&cut algorithm for mixed&integer nonlinear systems optimization problem. AIChE Journal, 2008, 54, 3239-3247.	1.8	2
16	Preparation of highly mesoporous carbon membranes via a sol&gel process using resorcinol and formaldehyde. Carbon, 2008, 46, 1031-1036.	5.4	56
17	Synthesis of ordered mesoporous carbon thin films at various temperatures in vapor infiltration method. Carbon, 2008, 46, 1358-1360.	5.4	15
18	A comparative simulation study of methane steam reforming in a porous ceramic membrane reactor using nitrogen and steam as sweep gases. International Journal of Hydrogen Energy, 2008, 33, 685-692.	3.8	44

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19	Energy Saving Characteristics of the Internally Heat Integrated Distillation Column (HIDiC) Pilot Plant for Multicomponent Petroleum Distillation. <i>Journal of Chemical Engineering of Japan</i> , 2008, 41, 771-778.	0.3	23
20	Development of a High Performance Distributor for an Internally Heat-Integrated Distillation Column. <i>Kagaku Kogaku Ronbunshu</i> , 2008, 34, 224-229.	0.1	2
21	Evaluation of Economical and Environmental Performance of an Internally Heat-Integrated Distillation Column (HIDiC). <i>Kagaku Kogaku Ronbunshu</i> , 2008, 34, 444-447.	0.1	6
22	Intensification of the Process Flow in the Pilot Plant of an Internally Heat-Integrated Distillation Column (HIDiC). <i>Kagaku Kogaku Ronbunshu</i> , 2008, 34, 70-75.	0.1	8
23	On Process Intensification of Membrane Reactor. <i>Kagaku Kogaku Ronbunshu</i> , 2008, 34, 144-147.	0.1	0
24	Simulation of Multicomponent Separation in Internally Heat Integrated Distillation Column using the Compact Heat Exchanger System. <i>Kagaku Kogaku Ronbunshu</i> , 2008, 34, 64-69.	0.1	3
25	Rate-based Modeling for Internally Heat-integrated Distillation Column (HIDiC) in Binary System. <i>Journal of the Japan Petroleum Institute</i> , 2007, 50, 162-168.	0.4	4
26	Synthesis of ultrafine carbon cryogel microspheres using a homogenizer. <i>AIChE Journal</i> , 2007, 53, 228-236.	1.8	8
27	Synthesis of monodisperse carbon beads with developed mesoporosity. <i>AIChE Journal</i> , 2007, 53, 746-749.	1.8	10
28	Degradation of aqueous phenol by simultaneous use of ozone with silica-gel and zeolite. <i>Chemical Engineering and Processing: Process Intensification</i> , 2007, 46, 513-519.	1.8	45
29	Optimal design and operation of methane steam reforming in a porous ceramic membrane reactor for hydrogen production. <i>Chemical Engineering Science</i> , 2007, 62, 5627-5631.	1.9	19
30	Degradation of Phenol by Simultaneous Use of Gas-Phase Corona Discharge and Catalyst-Supported Mesoporous Carbon Gels. <i>Industrial & Engineering Chemistry Research</i> , 2006, 45, 2897-2900.	1.8	15
31	Synthesis of monodisperse platinum nanoparticles supported on carbon gel microspheres. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 2929-2932.	1.5	4
32	Interpreting Design of an Ideal Heat-Integrated Distillation Column through Exergy Analysis. <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 963-970.	0.3	13
33	Performance of an Internally Heat-Integrated Distillation Column (HIDiC) in Separation of Ternary Mixtures. <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 417-425.	0.3	26
34	Graphical Synthesis of an Internally Heat-Integrated Distillation Column. <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 703-708.	0.3	9
35	Energy saving in multicomponent separation using an internally heat-integrated distillation column (HIDiC). <i>Applied Thermal Engineering</i> , 2006, 26, 1362-1368.	3.0	129
36	Towards further internal heat integration in design of reactive distillation columns—Part II. The process dynamics and operation. <i>Chemical Engineering Science</i> , 2006, 61, 5377-5392.	1.9	37

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37	Adsorption of phenol and reactive dyes from aqueous solution on carbon cryogel microspheres with controlled porous structure. <i>Microporous and Mesoporous Materials</i> , 2006, 96, 191-196.	2.2	55
38	Simple and rapid synthesis of mesoporous silica by vacuum solvent evaporation. <i>AIChE Journal</i> , 2006, 52, 1275-1277.	1.8	17
39	Reactive distillation design with considerations of heats of reaction. <i>AIChE Journal</i> , 2006, 52, 2518-2534.	1.8	47
40	Preparation of Mesoporous Silicate Thick Films by Electrophoretic Deposition and Their Adsorption Properties of Water Vapor. <i>Key Engineering Materials</i> , 2006, 314, 147-152.	0.4	8
41	The Influences of Pressure Distribution on an Ideal Heat-Integrated Distillation Column (HIDiC). <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 652-660.	0.3	12
42	Choosing More Controllable Configuration for an Internally Heat-Integrated Distillation Column. <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 818-825.	0.3	9
43	A Simple Method for Modeling Process Asymmetry. <i>Journal of Chemical Engineering of Japan</i> , 2006, 39, 448-452.	0.3	1
44	Reaction Rate of the Production of Dimethyl Carbonate Directly from the Supercritical CO ₂ and Methanol. <i>Journal of Chemical Engineering of Japan</i> , 2005, 38, 1020-1024.	0.3	8
45	Evaluation of thermoporometry for characterization of mesoporous materials. <i>Journal of Colloid and Interface Science</i> , 2005, 284, 614-620.	5.0	43
46	Simulation of a porous ceramic membrane reactor for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2005, 30, 1071-1079.	3.8	53
47	Evaluation of porous structure of resorcinol-formaldehyde hydrogels by thermoporometry. <i>Thermochimica Acta</i> , 2005, 439, 74-79.	1.2	17
48	The effects of different synthetic conditions on the porous properties of carbon cryogel microspheres. <i>Carbon</i> , 2005, 43, 1231-1238.	5.4	26
49	Towards further internal heat integration in design of reactive distillation columns—part I: The design principle. <i>Chemical Engineering Science</i> , 2005, 60, 4901-4914.	1.9	42
50	On enzymatic pH oscillations in CSTR with outlet regulator. <i>Chemical Physics Letters</i> , 2005, 407, 48-52.	1.2	4
51	Effect of Drying Method on Gas Adsorption Characteristics of Carbon Gel Microspheres. <i>Drying Technology</i> , 2005, 23, 2119-2129.	1.7	10
52	Simulation study on ceramic membrane reactor for hydrogen production. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2005, 28, 1069-1075.	0.6	4
53	Gibbs Ensemble Monte Carlo Simulation of LJ Fluid in Cylindrical Pore with Energetically Heterogeneous Surface. <i>Molecular Simulation</i> , 2004, 30, 353-359.	0.9	4
54	Design of a fully thermally coupled distillation column for hexane process using a semi-rigorous model. <i>Korean Journal of Chemical Engineering</i> , 2004, 21, 1098-1102.	1.2	12

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55	Porous properties of carbon gel microspheres as adsorbents for gas separation. Carbon, 2004, 42, 1671-1676.	5.4	65
56	Internally Heat-Integrated Distillation Columns: A Review. Chemical Engineering Research and Design, 2003, 81, 162-177.	2.7	233
57	Evaluation of pore size distribution in boundary region of micropore and mesopore using gas adsorption method. Journal of Colloid and Interface Science, 2003, 262, 116-125.	5.0	39
58	Interpretation of structure formation during the sol-gel transition of a resorcinol-formaldehyde solution by population balance. Journal of Colloid and Interface Science, 2003, 264, 532-537.	5.0	18
59	Self-Sustained Oscillations of an Enzyme Reaction in a Compartmentalized Reactor. Kagaku Kogaku Ronbunshu, 2003, 29, 357-362.	0.1	1
60	Periodic and Recycling Operations in a Chemical Reaction Process for Production of Light Olefins. Kagaku Kogaku Ronbunshu, 2003, 29, 374-377.	0.1	3
61	Brownian Dynamics Simulation Study of Self-Diffusion of a Charged Particle in Swollen Counter-Charged Hydrogel Modeled as Cubic Lattice.. Journal of Chemical Engineering of Japan, 2002, 35, 640-648.	0.3	18
62	Approximate design of fully thermally coupled distillation columns. Korean Journal of Chemical Engineering, 2002, 19, 383-390.	1.2	19
63	Parameter analysis and optimization of ideal heat integrated distillation columns. Computers and Chemical Engineering, 2001, 25, 737-744.	2.0	48
64	Synthesis of submillimeter-thick films of surfactant templated mesoporous silica. Microporous and Mesoporous Materials, 2001, 43, 181-189.	2.2	25
65	Remarkable Antiagglomeration Effect of a Yeast Biosurfactant, Diacylmannosylerythritol, on Ice-Water Slurry for Cold Thermal Storage. Biotechnology Progress, 2001, 17, 362-365.	1.3	54
66	New System for Electric Power Generation by Wet Oxidation of Biomass Ethanol.. Journal of Chemical Engineering of Japan, 2001, 34, 1545-1548.	0.3	6
67	Improvement in Efficiency of a Chemical Reaction System for Converting Methanol to Light Olefins by Periodic Operation.. Kagaku Kogaku Ronbunshu, 2001, 27, 812-818.	0.1	5
68	Producing electric power by wet oxidation of biomass ethanol. , 2000, , .		0
69	A new configuration of ideal heat integrated distillation columns (HIDiC). Computers and Chemical Engineering, 2000, 24, 239-245.	2.0	37
70	Operation of a bench-scale ideal heat integrated distillation column (HIDiC): an experimental study. Computers and Chemical Engineering, 2000, 24, 495-499.	2.0	98
71	Development on a coaxial heat integrated distillation column (HIDiC). Korean Journal of Chemical Engineering, 2000, 17, 593-596.	1.2	9
72	Parameter analysis and optimization of ideal heat integrated distillation columns (HIDiC). Computer Aided Chemical Engineering, 2000, , 661-666.	0.3	4

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73	On the Startup of Ideal Heat Integrated Distillation Columns (HIDiC).. Journal of Chemical Engineering of Japan, 2000, 33, 533-537.	0.3	4
74	Evaluating control structures for a general heat integrated distillation column (general HIDiC). Computers and Chemical Engineering, 1999, 23, S851-S854.	2.0	13
75	A case study of HIDiC design and energy saving. Computers and Chemical Engineering, 1999, 23, S855-S858.	2.0	11
76	Modeling of nonlinear chemical reaction systems and two-parameter stochastic resonance. Journal of Biological Physics, 1999, 25, 73-85.	0.7	4
77	Operating an ideal heat integrated distillation column with different control algorithms. Computers and Chemical Engineering, 1998, 22, S389-S393.	2.0	55
78	Potential energy savings in ideal heat-integrated distillation column. Applied Thermal Engineering, 1998, 18, 1077-1087.	3.0	28
79	Two-Parameter Stochastic Resonance in a Model of the Photosensitive Belousovâ~Zhabotinsky Reaction in a Flow System. Journal of Physical Chemistry A, 1998, 102, 4537-4542.	1.1	74
80	Identification and Internal Model Control of an Ideal Heat Integrated Distillation Column (HIDiC).. Journal of Chemical Engineering of Japan, 1998, 31, 159-164.	0.3	10
81	Performance Evaluation of Ideal Heat Integrated Distillation Columns.. Journal of Chemical Engineering of Japan, 1997, 30, 108-115.	0.3	7
82	Determining Appropriate Configuration of Ideal Heat Integrated Distillation Columns(HIDiC).. Journal of Chemical Engineering of Japan, 1997, 30, 575-579.	0.3	5
83	Possibility of Energy Saving in the Ideal Heat Integrated Distillation Column(HIDiC).. Kagaku Kogaku Ronbunshu, 1997, 23, 28-36.	0.1	8
84	Change of the Shape of a Chemical Vortex Due To a Local Disturbance. Journal of Physical Chemistry A, 1997, 101, 1313-1316.	1.1	6
85	Energy savings in heat-integrated distillation columns. Energy, 1997, 22, 621-625.	4.5	41
86	Self-sustained pH oscillations in a compartmentalized enzyme reactor system. Biophysical Chemistry, 1997, 67, 51-57.	1.5	9
87	Conventional Plate to Plate Calculation with Consideration of Plate to Plate Temperature Difference in Ideal Heat Integrated Distillation Column(HIDiC).. Kagaku Kogaku Ronbunshu, 1996, 22, 1345-1350.	0.1	5
88	Process Systems Engineering. The Concept of an Ideal Heat Integrated Distillation Column(HIDiC) and its Fundamental Properties.. Kagaku Kogaku Ronbunshu, 1996, 22, 985-990.	0.1	26
89	Dynamics of ideal heat integrated distillation columns.. Journal of Chemical Engineering of Japan, 1996, 29, 656-661.	0.3	21
90	Minimum and Total Reflux in Ideal Heat Integrated Distillation Column(HIDiC).. Kagaku Kogaku Ronbunshu, 1996, 22, 1461-1464.	0.1	3

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91	A numerical consideration on dynamic modeling and control of ideal heat integrated distillation columns.. Journal of Chemical Engineering of Japan, 1996, 29, 344-351.	0.3	29
92	Evaluation of an energy supply system with air separation. Energy Conversion and Management, 1996, 37, 295-301.	4.4	38
93	Bromomalonic acid as a source of photochemically produced Br [•] ion in the Ru(bpy) ₃ ²⁺ -catalyzed Belousov-Zhabotinsky reaction. Chemical Physics Letters, 1996, 259, 219-224.	1.2	40
94	Chemical waves in mesoporous media. Physica D: Nonlinear Phenomena, 1995, 84, 103-111.	1.3	22
95	Noise-induced convergence of the low flow rate chaos in the Belousov-Zhabotinsky reaction. Physica D: Nonlinear Phenomena, 1995, 84, 310-317.	1.3	8
96	Feasibility Study of the Application of Membrane Separation in CO ₂ Removal from Flue Gases.. Kagaku Kogaku Ronbunshu, 1993, 19, 714-721.	0.1	14
97	Modeling and design method for internal heatintegrated packed distillation column.. Journal of Chemical Engineering of Japan, 1988, 21, 595-601.	0.3	30
98	Operating pressure of a plate-to-plate heat-integrated distillation column.. Kagaku Kogaku Ronbunshu, 1988, 14, 63-70.	0.1	6
99	Crystallization characteristics of flon gas hydrates used as cool storage materials.. Kagaku Kogaku Ronbunshu, 1988, 14, 692-695.	0.1	2
100	Minimum reflux ratio and possibility of energy saving on a plate-to-plate heat-integrated distillation column.. Sekiyu Gakkaishi (Journal of the Japan Petroleum Institute), 1988, 31, 81-86.	0.1	4
101	Design procedure for a plate-to-plate heat-integrated distillation column.. Kagaku Kogaku Ronbunshu, 1986, 12, 535-541.	0.1	13
102	Design of electric power generation systems using waste heat energy. Energy Conversion and Management, 1986, 26, 277-281.	4.4	4