

Moshe Sheintuch

List of Publications by Year in descending order

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169
papers

3,560
citations

136740

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170
docs citations

170
times ranked

2467
citing authors

#	ARTICLE	IF	CITATIONS
1	Permeance inhibition due to reaction, coking and leakage of Pd membranes during methane steam reforming estimated from a micro-kinetic model. <i>Chemical Engineering Journal</i> , 2021, 411, 128272.	6.6	7
2	Product Composition and Kinetics of Methylal Decomposition on Alumina-Supported Pt, Ni, and Rh Catalysts. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 11902-11909.	1.8	8
3	Methylal Steam Reforming with Pt/Al ₂ O ₃ , Ni/Al ₂ O ₃ , and Mixed Cu/ZnO/Al ₂ O ₃ Catalysts. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 21382-21391.	1.8	7
4	Cross-flow reactor design for Fischer Tropsch synthesis. <i>Chemical Engineering Journal</i> , 2019, 372, 277-293.	6.6	5
5	Pressure, Diffusion, and S/M Ratio Effects in Methanol Steam Reforming Kinetics. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 3175-3186.	1.8	23
6	Architecture alternatives for propane dehydrogenation in a membrane reactor. <i>Chemical Engineering Journal</i> , 2018, 347, 900-912.	6.6	17
7	Bistability in membrane reactors due to membrane inhibition by competitive adsorption of reactants. <i>Chemical Engineering Journal</i> , 2018, 334, 1594-1604.	6.6	5
8	Methane steam reforming rates over Pt, Rh and Ni(111) accounting for H tunneling and for metal lattice vibrations. <i>Surface Science</i> , 2017, 656, 126-139.	0.8	20
9	What is the leanest stream to sustain a nonadiabatic loop reactor: Analysis and methane combustion experiments. <i>AIChE Journal</i> , 2017, 63, 2030-2042.	1.8	4
10	Kinetics and dynamics of methanol steam reforming on CuO/ZnO/alumina catalyst. <i>Applied Catalysis A: General</i> , 2017, 540, 47-56.	2.2	42
11	The Design Space of the Embryonic Cell Cycle Oscillator. <i>Biophysical Journal</i> , 2017, 113, 743-752.	0.2	4
12	Multi-fuel scaled-down autothermal pure H ₂ generator: Design and proof of concept. <i>AIChE Journal</i> , 2016, 62, 2112-2125.	1.8	13
13	Approximate models of concentration-polarization in Pd-membrane separators. Fast numerical analysis. <i>Journal of Membrane Science</i> , 2016, 500, 136-150.	4.1	8
14	Semianalytical characterization of turbulence from radial impellers, with experimental and numerical validation. <i>AIChE Journal</i> , 2015, 61, 1413-1426.	1.8	10
15	Pure hydrogen production in a membrane reformer: Demonstration, macro-scale and atomic scale modeling. <i>Chemical Engineering Journal</i> , 2015, 278, 363-373.	6.6	14
16	H Tunneling Effects on Sequential Dissociation of Methane over Ni(111) and the Overall Rate of Methane Reforming. <i>Journal of Physical Chemistry C</i> , 2015, 119, 9260-9273.	1.5	7
17	Directing selectivity of ethanol steam reforming in membrane reactors. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 5837-5848.	3.8	49
18	Can the permeance of a Pd-based membrane be predicted from first principles?. <i>Current Opinion in Chemical Engineering</i> , 2015, 9, 27-33.	3.8	0

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19	Design concepts of a scaled-down autothermal membrane reformer for on board hydrogen production. <i>Chemical Engineering Journal</i> , 2015, 282, 123-136.	6.6	9
20	On-site pure hydrogen production by methane steam reforming in high flux membrane reactor: Experimental validation, model predictions and membrane inhibition. <i>Chemical Engineering Journal</i> , 2015, 262, 862-874.	6.6	103
21	Effective approximations for concentration-polarization in Pd-membrane separators. <i>Chemical Engineering Journal</i> , 2015, 260, 835-845.	6.6	22
22	Hydrodynamic instability of thermal fronts in reactive porous media: Spinning patterns. <i>Physical Review E</i> , 2014, 89, 032908.	0.8	3
23	Modeling H ₂ transport through a Pd or Pd/Ag membrane, and its inhibition by co-adsorbates, from first principles. <i>Journal of Membrane Science</i> , 2014, 466, 58-69.	4.1	49
24	Kinetic effects on transversal instability of planar fronts in packed-bed reactors. <i>Chemical Engineering Journal</i> , 2014, 236, 212-222.	6.6	1
25	Predicting CH ₄ Dissociation Kinetics on Metals: Trends, Sticking Coefficients, H Tunneling, and Kinetic Isotope Effect. <i>Journal of Physical Chemistry C</i> , 2013, 117, 22811-22826.	1.5	47
26	A Tunnel Model for Activated Hydrogen Dissociation on Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7475-7486.	1.5	22
27	Kinetics of Catalytic OH Dissociation on Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5700-5709.	1.5	11
28	Are 3D models necessary to simulate packed bed reactors? analysis and 3D simulations of adiabatic and cooled reactors. <i>AIChE Journal</i> , 2012, 58, 3494-3503.	1.8	4
29	Oxygen-Assisted Water Dissociation on Metal Surfaces: Kinetics and Quantum Effects. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10063-10072.	1.5	3
30	Control of moving pulses in an one-dimensional model of cardiac tissue. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 5377-5382.	0.4	0
31	Model-based optimization of hydrogen generation by methane steam reforming in autothermal packed-bed membrane reformer. <i>AIChE Journal</i> , 2011, 57, 525-541.	1.8	46
32	Transversal thermal patterns in packed-bed reactors with simple kinetics: Bifurcation criterion and simulations. <i>AIChE Journal</i> , 2011, 57, 735-748.	1.8	3
33	Alkanes Dehydrogenation. , 2011, , 183-200.		0
34	Transversal patterns in three-dimensional packed bed reactors: Oscillatory kinetics. <i>AIChE Journal</i> , 2010, 56, 2887-2897.	1.8	3
35	Atomistic calculation of adsorption in activated carbon with pore-size distribution. <i>Journal of Colloid and Interface Science</i> , 2010, 342, 445-454.	5.0	13
36	Spinning propagation of diffusionally unstable planar fronts. <i>Physical Review E</i> , 2010, 81, 055204.	0.8	4

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37	Drifting solitary waves in a reaction-diffusion medium with differential advection. <i>Physical Review E</i> , 2010, 81, 025203.	0.8	4
38	Experimental Optimization of an Autonomous Scaled-Down Methane Membrane Reformer for Hydrogen Generation. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 1123-1129.	1.8	32
39	Why Turing mechanism is an obstacle to stationary periodic patterns in bounded reaction-diffusion media with advection. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3957.	1.3	8
40	Prediction of 3D Transversal Patterns in Packed-Bed Reactors Using a Reduced 2D Model: Oscillatory Kinetics. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 10558-10564.	1.8	2
41	Principal bifurcations and symmetries in the emergence of reaction-diffusion-advection patterns on finite domains. <i>Physical Review E</i> , 2009, 80, 056201.	0.8	15
42	Diffusion enhancement in composites of nanotubes and porous structures. <i>Molecular Simulation</i> , 2009, 35, 100-108.	0.9	1
43	Approximate characteristics of a moving temperature front in a fixed-bed catalytic reactor: Effect of mass dispersion. <i>Chemical Engineering Journal</i> , 2009, 154, 115-119.	6.6	4
44	Comments on "Transversal moving-front patterns. Criteria and simulations for two-bed and cylindrical shell packed-bed reactors" by Nekhamkina and Sheintuch. <i>Chemical Engineering Science</i> , 2009, 64, 426-427.	1.9	1
45	Demonstration of a scaled-down autothermal membrane methane reformer for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 8866-8876.	3.8	38
46	Control of rotating pulses in a loop reactor. <i>Journal of Process Control</i> , 2009, 19, 954-963.	1.7	12
47	Loop Reactor Design and Control for Reversible Exothermic Reactions. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 5185-5192.	1.8	12
48	The relation between surface composition of Pd-Cu/ACC catalysts prepared by selective deposition and their denitrification behavior. <i>Catalysis Communications</i> , 2009, 10, 1137-1141.	1.6	32
49	Subsurface Incorporation of Oxygen into Palladium(111): A Theoretical Study of Energetics and Kinetics. <i>Journal of Physical Chemistry C</i> , 2009, 113, 15326-15336.	1.5	12
50	Towards nonlinear selection of reaction-diffusion patterns in presence of advection: a spatial dynamics approach. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 9210.	1.3	16
51	Using sampled-data dynamic controller to stabilize rotating pulses. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009, 42, 90-95.	0.4	0
52	Structure of operating domains of loop reactors. <i>AIChE Journal</i> , 2008, 54, 1292-1302.	1.8	16
53	Design of a thermally balanced membrane reformer for hydrogen production. <i>AIChE Journal</i> , 2008, 54, 2735-2750.	1.8	29
54	Approximate design of loop reactors. <i>Chemical Engineering Science</i> , 2008, 63, 4924-4934.	1.9	11

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55	Transversal moving-front patterns: Criteria and simulations for two-bed and cylindrical shell packed-bed reactors. <i>Chemical Engineering Science</i> , 2008, 63, 3716-3726.	1.9	8
56	Transversal Hot Zones Formation in Catalytic Packed-Bed Reactors. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 7509-7523.	1.8	27
57	Comparative Theoretical Study of CO Adsorption and Desorption Kinetics on (111) Surfaces of Transition Metals. <i>Journal of Physical Chemistry C</i> , 2008, 112, 14377-14384.	1.5	28
58	Diffusion on Metal Surfaces: Formalism and Application to CO Diffusion. <i>Journal of Physical Chemistry C</i> , 2008, 112, 15510-15516.	1.5	8
59	Boundary-induced patterns in excitable systems: The structure of oscillatory domain. <i>Physical Review E</i> , 2007, 75, 056210.	0.8	7
60	Theoretical Study of Catalytic CO Oxidation on (111) Metal Surfaces: Calculating Rate Constants That Account for Tunnel Effect. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9184-9193.	1.5	11
61	Axial and transversal patterns during CO oxidation in fixed beds. <i>Chemical Engineering Science</i> , 2007, 62, 4948-4953.	1.9	5
62	Activated diffusion in relaxed porous clusters. <i>Chemical Engineering Science</i> , 2007, 62, 2242-2253.	1.9	6
63	Hydrodenitrication with PdCu Catalysts: Catalyst Optimization by Experimental and Quantum Chemical Approaches. <i>Israel Journal of Chemistry</i> , 2006, 46, 1-15.	1.0	10
64	Predicting Solute Adsorption on Activated Carbon: Phenol. <i>Langmuir</i> , 2006, 22, 3614-3621.	1.6	68
65	ROBUST CONTROL OF STATIONARY PLANAR FRONTS IN REACTION-DIFFUSION SYSTEMS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 250-255.	0.4	0
66	Predicting the activation energy of catalytic dissociation of the heteroatomic AB bond. <i>Chemical Physics</i> , 2006, 324, 129-139.	0.9	7
67	Control design for suppressing transversal patterns in reaction (convection) diffusion systems. <i>Journal of Process Control</i> , 2006, 16, 913-921.	1.7	2
68	Using Lyapunov's direct method for wave suppression in reactive systems. <i>Systems and Control Letters</i> , 2006, 55, 566-572.	1.3	21
69	Catalytic spatiotemporal thermal patterns during CO oxidation on cylindrical surfaces: Experiments and simulations. <i>Journal of Chemical Physics</i> , 2006, 124, 034709.	1.2	13
70	Boundary-induced spatiotemporal complex patterns in excitable systems. <i>Physical Review E</i> , 2006, 73, 066224.	0.8	9
71	Spatiotemporal patterns in catalytic systems. <i>Catalysis Today</i> , 2005, 105, 254-274.	2.2	53
72	DFT study of small bimetallic palladium-copper clusters. <i>Chemical Physics Letters</i> , 2005, 401, 232-240.	1.2	44

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73	The asymptotes of loop reactors. <i>AIChE Journal</i> , 2005, 51, 224-234.	1.8	40
74	Activated carbon cloth-supported Pd-Cu catalyst: Application for continuous water denitrification. <i>Catalysis Today</i> , 2005, 102-103, 121-127.	2.2	76
75	Analysis of design sensitivity of flow-reversal reactors: Simulations, approximations and oxidation experiments. <i>Chemical Engineering Science</i> , 2005, 60, 2991-2998.	1.9	6
76	Moving waves and spatiotemporal patterns due to weak thermal effects in models of catalytic oxidation. <i>Journal of Chemical Physics</i> , 2005, 122, 194701.	1.2	8
77	Stationary fronts due to weak thermal effects in models of catalytic oxidation. <i>Journal of Chemical Physics</i> , 2005, 123, 064708.	1.2	4
78	Enthalpy and Entropy Effects in Hydrogen Adsorption on Carbon Nanotubes. <i>Langmuir</i> , 2005, 21, 6282-6288.	1.6	31
79	Quantum Mechanical Model for the Dissociative Adsorption of Diatomic Molecules on Metal Surfaces. <i>Journal of Physical Chemistry A</i> , 2005, 109, 3542-3549.	1.1	13
80	Relationship between Kinetic and Thermodynamic Characteristics of Oxygen Dissociative Adsorption on Close-Packed Metal Surfaces. <i>Journal of Physical Chemistry A</i> , 2005, 109, 7957-7966.	1.1	12
81	Stabilizing the absolutely or convectively unstable homogeneous solutions of reaction-convection-diffusion systems. <i>Physical Review E</i> , 2004, 70, 026221.	0.8	3
82	Carbon membranes for high temperature gas separations: Experiment and theory. <i>AIChE Journal</i> , 2004, 50, 596-610.	1.8	46
83	Predicting the kinetics of the dissociative adsorption of homonuclear molecules on metal surfaces in gas phase and solution. <i>Surface Science</i> , 2004, 554, 159-169.	0.8	12
84	Predicting the kinetics of the dissociative adsorption of homonuclear molecules on metal surfaces in gas phase and solution II. Numerical calculations of the molecular oxygen dissociative adsorption on the Pd(111) surface. <i>Surface Science</i> , 2004, 554, 170-182.	0.8	8
85	Application of a carbon membrane reactor for dehydrogenation reactions. <i>Chemical Engineering Science</i> , 2004, 59, 2013-2021.	1.9	47
86	Comparison of flow-reversal, internal-recirculation and loop reactors. <i>Chemical Engineering Science</i> , 2004, 59, 4065-4072.	1.9	28
87	Analysis of a carbon membrane reactor: from atomistic simulations of single-file diffusion to reactor design. <i>Chemical Engineering Science</i> , 2004, 59, 4739-4746.	1.9	11
88	Carbon-supported palladium catalysts. Molecular orbital study. <i>Journal of Catalysis</i> , 2003, 214, 53-67.	3.1	37
89	Stationary spatially complex solutions in cross-flow reactors with two reactions. <i>AIChE Journal</i> , 2003, 49, 1241-1249.	1.8	7
90	Comparing flow-reversal and inner recirculation reactors: Experiments and simulations. <i>AIChE Journal</i> , 2003, 49, 1849-1858.	1.8	10

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91	Thermal patterns in simple models of cylindrical reactors. <i>Chemical Engineering Science</i> , 2003, 58, 1441-1451.	1.9	12
92	Flow-rate effects in flow-reversal reactors: experiments, simulations and approximations. <i>Chemical Engineering Science</i> , 2003, 58, 1135-1146.	1.9	18
93	Asymptotic solutions of stationary patterns in convection-reaction-diffusion systems. <i>Physical Review E</i> , 2003, 68, 036207.	0.8	12
94	Pinning stationary planar fronts in diffusion-convection-reaction systems. <i>Physical Review E</i> , 2002, 66, 066213.	0.8	3
95	Spatially "chaotic" solutions in reaction-convection models and their bifurcations to moving waves. <i>Physical Review E</i> , 2002, 66, 016204.	0.8	10
96	Stabilization of Fronts in a Reaction-Diffusion System: Application of the Gersgorin Theorem. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 2023-2032.	1.8	15
97	Theory of Dissociative Adsorption Kinetics of Homonuclear Diatomic Molecules on Solid Surfaces. <i>Journal of Physical Chemistry B</i> , 2002, 106, 11784-11794.	1.2	12
98	Controlling Front Position in Catalytic Diffusion-Convection-Reaction Systems. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 2136-2146.	1.8	11
99	Hydrotreating processes for catalytic abatement of water pollutants. <i>Catalysis Today</i> , 2002, 75, 63-67.	2.2	25
100	Analysis of front interaction and control in stationary patterns of reaction-diffusion systems. <i>Physical Review E</i> , 2001, 63, 056120.	0.8	13
101	REACTION ENGINEERING PRINCIPLES OF PROCESSES CATALYZED BY FRACTAL SOLIDS. <i>Catalysis Reviews - Science and Engineering</i> , 2001, 43, 233-289.	5.7	22
102	Hydrogen Interactions with a Pd ₄ Cluster: Triplet and Singlet States and Transition Probability. <i>Journal of Physical Chemistry A</i> , 2001, 105, 11312-11326.	1.1	35
103	Front Stabilization by Finite-Output Control in Reaction-Diffusion Systems. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2001, 34, 315-320.	0.4	0
104	Spatiotemporal patterns in models of cross-flow reactors. <i>Catalysis Today</i> , 2001, 70, 383-391.	2.2	3
105	Control strategies for front stabilization in a tubular reactor model. <i>AIChE Journal</i> , 2001, 47, 187-196.	1.8	9
106	Spatiotemporal patterns in models of cross-flow reactors. Regular and oscillatory kinetics. <i>Chemical Engineering Science</i> , 2001, 56, 771-778.	1.9	9
107	Pattern formation in models of fixed-bed reactors. <i>Catalysis Today</i> , 2001, 70, 369-382.	2.2	12
108	Spatiotemporal patterns in thermokinetic models of cross-flow reactors. <i>AIChE Journal</i> , 2000, 46, 1632-1640.	1.8	27

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109	On the intermediate asymptote of diffusion-limited reactions in a fractal porous catalyst. <i>Chemical Engineering Science</i> , 2000, 55, 615-624.	1.9	14
110	Quantum chemical study of neutral and single charged palladium clusters. <i>Journal of Molecular Catalysis A</i> , 2000, 160, 445-451.	4.8	22
111	Modeling and analysis of spatiotemporal oscillatory patterns during CO oxidation in the catalytic converter. <i>Chemical Engineering Science</i> , 2000, 55, 1461-1475.	1.9	26
112	Cloth catalysts in water denitrification. <i>Applied Catalysis B: Environmental</i> , 2000, 27, 127-135.	10.8	72
113	Nonlinear analysis of stationary patterns in convection-reaction-diffusion systems. <i>Physical Review E</i> , 2000, 61, 2436-2444.	0.8	21
114	Catalytic Regeneration of Chloroorganics-Saturated Activated Carbon Using Hydrodechlorination. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 18-23.	1.8	33
115	Density Functional Study of the Interactions between Dihydrogen and Pd _n (n= 1-4) Clusters. <i>Journal of Physical Chemistry A</i> , 2000, 104, 8089-8096.	1.1	48
116	Pattern formation in homogeneous and heterogeneous reactor models. <i>Chemical Engineering Science</i> , 1999, 54, 4535-4546.	1.9	20
117	Pattern formation in homogeneous reactor models. <i>AIChE Journal</i> , 1999, 45, 398-409.	1.8	26
118	Selectivity and Deactivation of Diffusion-Limited Reactions in a Pore-Fractal Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 3261-3269.	1.8	5
119	Theory of the Self-Exchange Electron Transfer in the Dioxygen/Superoxide System in Water. <i>Journal of Physical Chemistry A</i> , 1999, 103, 10699-10707.	1.1	10
120	Using weighted global control for stabilizing patterned states. <i>Chaos</i> , 1999, 9, 78-87.	1.0	7
121	Pattern Selection In A Diffusion-Reaction System With Global Or Long-Range Interaction. <i>The IMA Volumes in Mathematics and Its Applications</i> , 1999, , 265-282.	0.5	1
122	Quantum chemical study of small palladium clusters. <i>Surface Science</i> , 1998, 414, 148-158.	0.8	50
123	Design of Membranal Dehydrogenation Reactors: The Fast Reaction Asymptote. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 807-814.	1.8	14
124	Catalytic Abatement of Water Pollutants. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 309-326.	1.8	390
125	Patterns due to quintic kinetics in a diffusion-reaction system with global interaction. <i>Journal of Chemical Physics</i> , 1998, 109, 10612-10619.	1.2	6
126	Abatement of Pollutants by Adsorption and Oxidative Catalytic Regeneration. <i>Industrial & Engineering Chemistry Research</i> , 1997, 36, 4374-4380.	1.8	57

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127	Reaction-diffusion patterns on a disk or a square in a model with long-range interaction. Journal of Chemical Physics, 1997, 107, 8165-8174.	1.2	16
128	Dynamics of catalytic reactions and reactors. Catalysis Today, 1997, 36, 461-476.	2.2	8
129	Pattern selection in a general model of convection, diffusion and catalytic reaction. Physica D: Nonlinear Phenomena, 1997, 102, 125-146.	1.3	16
130	Spatiotemporal patterns in a heterogeneous model of a catalyst particle. Journal of Chemical Physics, 1996, 105, 289-298.	1.2	5
131	Spatiotemporal patterns in catalytic reactors. AIChE Journal, 1996, 42, 1041-1068.	1.8	53
132	Observations, modeling and optimization of yield, selectivity and activity during dehydrogenation of isobutane and propane in a Pd membrane reactor. Chemical Engineering Science, 1996, 51, 535-547.	1.9	79
133	Spatiotemporal Catalytic Patterns Due to Local Nonuniformities. The Journal of Physical Chemistry, 1996, 100, 15137-15144.	2.9	12
134	One- and two-dimensional spatiotemporal thermal patterns in a fixed-bed reactor. Chemical Engineering Science, 1995, 50, 3125-3141.	1.9	10
135	Spatiotemporal motions due to global interaction. Journal of Chemical Physics, 1994, 100, 3568-3581.	1.2	77
136	Spatiotemporal patterns in an isothermal heterogeneous model of a fixed-bed reactor. Journal of Chemical Physics, 1994, 101, 9573-9581.	1.2	10
137	Analysis of excitable waves and spatio-temporal patterns in fixed-bed reactors. Catalysis Today, 1994, 20, 515-523.	2.2	2
138	Patterns due to convection-diffusion-reaction interaction in a fixed-bed catalytic reactor. Chemical Engineering Science, 1994, 49, 5315-5326.	1.9	11
139	Excitable waves and spatiotemporal patterns in a fixed-bed reactor. AIChE Journal, 1994, 40, 120-130.	1.8	33
140	Impact of global interaction and symmetry on pattern selection and bifurcation. Journal of Chemical Physics, 1994, 101, 4688-4696.	1.2	22
141	Patterns of temperature pulses on electrically heated catalytic ribbons. Physica D: Nonlinear Phenomena, 1993, 63, 393-409.	1.3	50
142	Multiplicity patterns of activated-sludge with substrate-inhibition kinetics. Water Research, 1993, 27, 929-938.	5.3	6
143	Pattern selection in controlled reaction-diffusion systems. Journal of Chemical Physics, 1993, 98, 2823-2836.	1.2	70
144	Scaling approach to study diffusion and reaction processes on fractal catalysts. Chemical Engineering Science, 1992, 47, 4425-4433.	1.9	46

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145	Fractal and multifractal analysis of the sensitivity of catalytic reactions to catalyst structure. Journal of Chemical Physics, 1991, 95, 6100-6111.	1.2	71
146	Design criteria for population selection in activated sludge. The Chemical Engineering Journal, 1991, 45, 173.	0.4	2
147	Fixed-bed reactor design for self-inhibitory substrates. The Chemical Engineering Journal, 1991, 47, B11-B21.	0.4	3
148	Complex behavior in controlled catalytic wires. The Journal of Physical Chemistry, 1990, 94, 5889-5896.	2.9	19
149	Numerical approaches for computation of fronts. Numerical Methods for Partial Differential Equations, 1990, 6, 43-58.	2.0	2
150	Excitable waves in a fixed bed reactor: Observations and analysis. Chemical Engineering Science, 1990, 45, 2125-2132.	1.9	12
151	Excitable waves in a fixed bed reactor: ethylene oxidation on platinum. Chemical Engineering Science, 1990, 45, 1897-1903.	1.9	12
152	Comparison of multiplicity patterns of a single catalytic pellet and a fixed catalytic bed for ethylene oxidation. Chemical Engineering Science, 1990, 45, 1331-1342.	1.9	13
153	Deterministic approaches to problems of diffusion, reaction and adsorption in a fractal porous catalyst. Chemical Engineering Science, 1989, 44, 69-79.	1.9	56
154	Kinetics falsification by symmetry breaking. 2. Olefin oxidation on a platinum wire. Industrial & Engineering Chemistry Research, 1989, 28, 955-960.	1.8	6
155	Kinetics falsification by symmetry breaking. 1. Steady-state analysis. Industrial & Engineering Chemistry Research, 1989, 28, 948-954.	1.8	5
156	Design of experiment and parameter estimation in a bistable system: ethylene oxidation on platinum. Industrial & Engineering Chemistry Research, 1988, 27, 1152-1157.	1.8	6
157	Steady state modeling of reactor-settler interaction. Water Research, 1987, 21, 1463-1472.	5.3	22
158	Analysis and modeling of multiplicity features. 1. Nonisothermal experiments. Industrial & Engineering Chemistry Research, 1987, 26, 786-794.	1.8	18
159	Analysis and modeling of multiplicity features. 2. Isothermal experiments. Industrial & Engineering Chemistry Research, 1987, 26, 794-804.	1.8	13
160	Identification of observed dynamic bifurcations and development of qualitative models. Chemical Engineering Science, 1987, 42, 41-52.	1.9	18
161	The determination of global solutions from local ones in catalytic systems showing steady-state multiplicity. Chemical Engineering Science, 1987, 42, 2103-2114.	1.9	10
162	Identification of observed dynamic centres for analysis of experimental data. Chemical Engineering Science, 1987, 42, 233-243.	1.9	11

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163	Species selection in a reactor-settler system. <i>Biotechnology and Bioengineering</i> , 1987, 30, 598-606.	1.7	11
164	Optimal feed distribution to a reactor with maximal rate. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1986, 25, 228-233.	0.7	13
165	Dynamic features of two ordinary differential equations with widely separated time scales. <i>Chemical Engineering Science</i> , 1985, 40, 1653-1664.	1.9	20
166	Analysis and Qualitative Modelling of Experimentally Observed Dynamic Features. <i>Springer Series in Synergetics</i> , 1985, , 33-46.	0.2	1
167	Application of singularity theory to modeling of steady-state multiplicity: propylene oxidation on platinum. <i>Industrial & Engineering Chemistry Fundamentals</i> , 1983, 22, 209-215.	0.7	22
168	Modeling Internal Combustion Engine with Thermo-Chemical Recuperation of the Waste Heat by Methanol Steam Reforming. <i>SAE International Journal of Engines</i> , 0, 7, 234-242.	0.4	35
169	Reaction-diffusion patterns on a disk or a square in a model with long-range interaction. , 0, .		6