Moshe Sheintuch

List of Publications by Year
in descending order

169 papers	3,560 citations	136740 32 h-index	189595 50 g-index
170 all docs	170 docs citations	170 times ranked	2467 citing authors

#	Article	IF	Citations
1	Catalytic Abatement of Water Pollutants. Industrial & Engineering Chemistry Research, 1998, 37, 309-326.	1.8	390
2	On-site pure hydrogen production by methane steam reforming in high flux membrane reactor: Experimental validation, model predictions and membrane inhibition. Chemical Engineering Journal, 2015, 262, 862-874.	6.6	103
3	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
4	Spatiotemporal motions due to global interaction. Journal of Chemical Physics, 1994, 100, 3568-3581.	1.2	77
5	Activated carbon cloth-supported Pdâ€“Cu catalyst: Application for continuous water denitrification. Catalysis Today, 2005, 102-103, 121-127.	2.2	76
6	Cloth catalysts in water denitrification. Applied Catalysis B: Environmental, 2000, 27, 127-135.	10.8	72
7	Fractal and multifractal analysis of the sensitivity of catalytic reactions to catalyst structure. Journal of Chemical Physics, 1991, 95, 6100-6111.	1.2	71
8	Pattern selection in controlled reactionâ€“diffusion systems. Journal of Chemical Physics, 1993, 98, 2823-2836.	1.2	70
9	Predicting Solute Adsorption on Activated Carbon:â€‰ Phenol. Langmuir, 2006, 22, 3614-3621.	1.6	68
10	Abatement of Pollutants by Adsorption and Oxidative Catalytic Regeneration. Industrial & Engineering Chemistry Research, 1997, 36, 4374-4380.	1.8	57
11	Deterministic approaches to problems of diffusion, reaction and adsorption in a fractal porous catalyst. Chemical Engineering Science, 1989, 44, 69-79.	1.9	56
12	Spatiotemporal patterns in catalytic reactors. AICHE Journal, 1996, 42, 1041-1068.	1.8	53
13	Spatiotemporal patterns in catalytic systems. Catalysis Today, 2005, 105, 254-274.	2.2	53
14	Patterns of temperature pulses on electrically heated catalytic ribbons. Physica D: Nonlinear Phenomena, 1993, 63, 393-409.	1.3	50
15	Quantum chemical study of small palladium clusters. Surface Science, 1998, 414, 148-158.	0.8	50
16	Modeling H2 transport through a Pd or Pd/Ag membrane, and its inhibition by co-adsorbates, from first principles. Journal of Membrane Science, 2014, 466, 58-69.	4.1	49
17	Directing selectivity of ethanol steam reforming inÂmembrane reactors. International Journal of Hydrogen Energy, 2015, 40, 5837-5848.	3.8	49
18	Density Functional Study of the Interactions between Dihydrogen and Pdn(n= 1â^’4) Clusters. Journal of Physical Chemistry A, 2000, 104, 8089-8096.	1.1	48

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19	Application of a carbon membrane reactor for dehydrogenation reactions. Chemical Engineering Science, 2004, 59, 2013-2021.	1.9	47
20	Predicting CH₄ Dissociation Kinetics on Metals: Trends, Sticking Coefficients, H Tunneling, and Kinetic Isotope Effect. Journal of Physical Chemistry C, 2013, 117, 22811-22826.	1.5	47
21	Scaling approach to study diffusion and reaction processes on fractal catalysts. Chemical Engineering Science, 1992, 47, 4425-4433.	1.9	46
22	Carbon membranes for high temperature gas separations: Experiment and theory. AICHE Journal, 2004, 50, 596-610.	1.8	46
23	Modelâ€based optimization of hydrogen generation by methane steam reforming in autothermal packedâ€bed membrane reformer. AICHE Journal, 2011, 57, 525-541.	1.8	46
24	DFT study of small bimetallic palladiumâ€“copper clusters. Chemical Physics Letters, 2005, 401, 232-240.	1.2	44
25	Kinetics and dynamics of methanol steam reforming on CuO/ZnO/alumina catalyst. Applied Catalysis A: General, 2017, 540, 47-56.	2.2	42
26	The asymptotes of loop reactors. AICHE Journal, 2005, 51, 224-234.	1.8	40
27	Demonstration of a scaled-down autothermal membrane methane reformer for hydrogen generation. International Journal of Hydrogen Energy, 2009, 34, 8866-8876.	3.8	38
28	Carbon-supported palladium catalysts. Molecular orbital study. Journal of Catalysis, 2003, 214, 53-67.	3.1	37
29	Hydrogen Interactions with a Pd4Cluster:Â Triplet and Singlet States and Transition Probability. Journal of Physical Chemistry A, 2001, 105, 11312-11326.	1.1	35
30	Modeling Internal Combustion Engine with Thermo-Chemical Recuperation of the Waste Heat by Methanol Steam Reforming. SAE International Journal of Engines, 0, 7, 234-242.	0.4	35
31	Excitable waves and spatiotemporal patterns in a fixed-bed reactor. AICHE Journal, 1994, 40, 120-130.	1.8	33
32	Catalytic Regeneration of Chloroorganics-Saturated Activated Carbon Using Hydrodechlorination. Industrial & Engineering Chemistry Research, 2000, 39, 18-23.	1.8	33
33	The relation between surface composition of Pdâ€“Cu/ACC catalysts prepared by selective deposition and their denitrification behavior. Catalysis Communications, 2009, 10, 1137-1141.	1.6	32
34	Experimental Optimization of an Autonomous Scaled-Down Methane Membrane Reformer for Hydrogen Generation. Industrial & Engineering Chemistry Research, 2010, 49, 1123-1129.	1.8	32
35	Enthalpy and Entropy Effects in Hydrogen Adsorption on Carbon Nanotubes. Langmuir, 2005, 21, 6282-6288.	1.6	31
36	Design of a thermally balanced membrane reformer for hydrogen production. AICHE Journal, 2008, 54, 2735-2750.	1.8	29

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37	Comparison of flow-reversal, internal-recirculation and loop reactors. Chemical Engineering Science, 2004, 59, 4065-4072.	1.9	28
38	Comparative Theoretical Study of CO Adsorption and Desorption Kinetics on (111) Surfaces of Transition Metals. Journal of Physical Chemistry C, 2008, 112, 14377-14384.	1.5	28
39	Spatiotemporal patterns in thermokinetic models of cross-flow reactors. AICHE Journal, 2000, 46, 1632-1640.	1.8	27
40	Transversal Hot Zones Formation in Catalytic Packed-Bed Reactors. Industrial & Engineering Chemistry Research, 2008, 47, 7509-7523.	1.8	27
41	Pattern formation in homogeneous reactor models. AICHE Journal, 1999, 45, 398-409.	1.8	26
42	Modeling and analysis of spatiotemporal oscillatory patterns during CO oxidation in the catalytic converter. Chemical Engineering Science, 2000, 55, 1461-1475.	1.9	26
43	Hydrotreating processes for catalytic abatement of water pollutants. Catalysis Today, 2002, 75, 63-67.	2.2	25
44	Pressure, Diffusion, and S/M Ratio Effects in Methanol Steam Reforming Kinetics. Industrial & Engineering Chemistry Research, 2018, 57, 3175-3186.	1.8	23
45	Application of singularity theory to modeling of steady-state multiplicity: propylene oxidation on platinum. Industrial & Engineering Chemistry Fundamentals, 1983, 22, 209-215.	0.7	22
46	Steady state modeling of reactor-settler interaction. Water Research, 1987, 21, 1463-1472.	5.3	22
47	Impact of global interaction and symmetry on pattern selection and bifurcation. Journal of Chemical Physics, 1994, 101, 4688-4696.	1.2	22
48	Quantum chemical study of neutral and single charged palladium clusters. Journal of Molecular Catalysis A, 2000, 160, 445-451.	4.8	22
49	REACTION ENGINEERING PRINCIPLES OF PROCESSES CATALYZED BY FRACTAL SOLIDS. Catalysis Reviews - Science and Engineering, 2001, 43, 233-289.	5.7	22
50	A Tunnel Model for Activated Hydrogen Dissociation on Metal Surfaces. Journal of Physical Chemistry C, 2013, 117, 7475-7486.	1.5	22
51	Effective approximations for concentration-polarization in Pd-membrane separators. Chemical Engineering Journal, 2015, 260, 835-845.	6.6	22
52	Nonlinear analysis of stationary patterns in convection-reaction-diffusion systems. Physical Review E, 2000, 61, 2436-2444.	0.8	21
53	Using Lyapunov's direct method for wave suppression in reactive systems. Systems and Control Letters, 2006, 55, 566-572.	1.3	21
54	Dynamic features of two ordinary differential equations with widely separated time scales. Chemical Engineering Science, 1985, 40, 1653-1664.	1.9	20

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55	Pattern formation in homogeneous and heterogeneous reactor models. Chemical Engineering Science, 1999, 54, 4535-4546.	1.9	20
56	Methane steam reforming rates over Pt, Rh and Ni(111) accounting for H tunneling and for metal lattice vibrations. Surface Science, 2017, 656, 126-139.	0.8	20
57	Complex behavior in controlled catalytic wires. The Journal of Physical Chemistry, 1990, 94, 5889-5896.	2.9	19
58	Analysis and modeling of multiplicity features. 1. Nonisothermal experiments. Industrial & Engineering Chemistry Research, 1987, 26, 786-794.	1.8	18
59	Identification of observed dynamic bifurcations and development of qualitative models. Chemical Engineering Science, 1987, 42, 41-52.	1.9	18
60	Flow-rate effects in flow-reversal reactors: experiments, simulations and approximations. Chemical Engineering Science, 2003, 58, 1135-1146.	1.9	18
61	Architecture alternatives for propane dehydrogenation in a membrane reactor. Chemical Engineering Journal, 2018, 347, 900-912.	6.6	17
62	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
63	Pattern selection in a general model of convection, diffusion and catalytic reaction. Physica D: Nonlinear Phenomena, 1997, 102, 125-146.	1.3	16
64	Structure of operating domains of loop reactors. AICHE Journal, 2008, 54, 1292-1302.	1.8	16
65	Towards nonlinear selection of reaction-diffusion patterns in presence of advection: a spatial dynamics approach. Physical Chemistry Chemical Physics, 2009, 11, 9210.	1.3	16
66	Stabilization of Fronts in a Reactionâ"Diffusion System:Â Application of the Gershgorin Theorem. Industrial & Engineering Chemistry Research, 2002, 41, 2023-2032.	1.8	15
67	Principal bifurcations and symmetries in the emergence of reaction-diffusion-advection patterns on finite domains. Physical Review E, 2009, 80, 056201.	0.8	15
68	Design of Membranal Dehydrogenation Reactors:Â The Fast Reaction Asymptote. Industrial & Engineering Chemistry Research, 1998, 37, 807-814.	1.8	14
69	On the intermediate asymptote of diffusion-limited reactions in a fractal porous catalyst. Chemical Engineering Science, 2000, 55, 615-624.	1.9	14
70	Pure hydrogen production in a membrane reformer: Demonstration, macro-scale and atomic scale modeling. Chemical Engineering Journal, 2015, 278, 363-373.	6.6	14
71	Optimal feed distribution to a reactor with maximal rate. Industrial & Engineering Chemistry Fundamentals, 1986, 25, 228-233.	0.7	13
72	Analysis and modeling of multiplicity features. 2. Isothermal experiments. Industrial & Engineering Chemistry Research, 1987, 26, 794-804.	1.8	13

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73	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
74	Analysis of front interaction and control in stationary patterns of reaction-diffusion systems. Physical Review E, 2001, 63, 056120.	0.8	13
75	Quantum Mechanical Model for the Dissociative Adsorption of Diatomic Molecules on Metal Surfaces. Journal of Physical Chemistry A, 2005, 109, 3542-3549.	1.1	13
76	Catalytic spatiotemporal thermal patterns during CO oxidation on cylindrical surfaces: Experiments and simulations. Journal of Chemical Physics, 2006, 124, 034709.	1.2	13
77	Atomistic calculation of adsorption in activated carbon with pore-size distribution. Journal of Colloid and Interface Science, 2010, 342, 445-454.	5.0	13
78	Multiâ€fuel scaledâ€down autothermal pure H₂ generator: Design and proof of concept. AICHE Journal, 2016, 62, 2112-2125.	1.8	13
79	Excitable waves in a fixed bed reactor: Observations and analysis. Chemical Engineering Science, 1990, 45, 2125-2132.	1.9	12
80	Excitable waves in a fixed bed reactor: ethylene oxidation on platinum. Chemical Engineering Science, 1990, 45, 1897-1903.	1.9	12
81	Spatiotemporal Catalytic Patterns Due to Local Nonuniformities. The Journal of Physical Chemistry, 1996, 100, 15137-15144.	2.9	12
82	Pattern formation in models of fixed-bed reactors. Catalysis Today, 2001, 70, 369-382.	2.2	12
83	Theory of Dissociative Adsorption Kinetics of Homonuclear Diatomic Molecules on Solid Surfaces. Journal of Physical Chemistry B, 2002, 106, 11784-11794.	1.2	12
84	Thermal patterns in simple models of cylindrical reactors. Chemical Engineering Science, 2003, 58, 1441-1451.	1.9	12
85	Asymptotic solutions of stationary patterns in convection-reaction-diffusion systems. Physical Review E, 2003, 68, 036207.	0.8	12
86	Predicting the kinetics of the dissociative adsorption of homonuclear molecules on metal surfaces in gas phase and solution. Surface Science, 2004, 554, 159-169.	0.8	12
87	Relationship between Kinetic and Thermodynamic Characteristics of Oxygen Dissociative Adsorption on Close-Packed Metal Surfaces. Journal of Physical Chemistry A, 2005, 109, 7957-7966.	1.1	12
88	Control of rotating pulses in a loop reactor. Journal of Process Control, 2009, 19, 954-963.	1.7	12
89	Loop Reactor Design and Control for Reversible Exothermic Reactions. Industrial & Engineering Chemistry Research, 2009, 48, 5185-5192.	1.8	12
90	Subsurface Incorporation of Oxygen into Palladium(111): A Theoretical Study of Energetics and Kinetics. Journal of Physical Chemistry C, 2009, 113, 15326-15336.	1.5	12

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91	Identification of observed dynamic centres for analysis of experimental data. Chemical Engineering Science, 1987, 42, 233-243.	1.9	11
92	Species selection in a reactor-settler system. Biotechnology and Bioengineering, 1987, 30, 598-606.	1.7	11
93	Patterns due to convectionâ€"diffusionâ€"reaction interaction in a fixed-bed catalytic reactor. Chemical Engineering Science, 1994, 49, 5315-5326.	1.9	11
94	Controlling Front Position in Catalytic Diffusionâ^'Convectionâ^'Reaction Systems. Industrial & Engineering Chemistry Research, 2002, 41, 2136-2146.	1.8	11
95	Analysis of a carbon membrane reactor: from atomistic simulations of single-file diffusion to reactor design. Chemical Engineering Science, 2004, 59, 4739-4746.	1.9	11
96	Theoretical Study of Catalytic CO Oxidation on (111) Metal Surfaces:â€‰ Calculating Rate Constants That Account for Tunnel Effect. Journal of Physical Chemistry C, 2007, 111, 9184-9193.	1.5	11
97	Approximate design of loop reactors. Chemical Engineering Science, 2008, 63, 4924-4934.	1.9	11
98	Kinetics of Catalytic OH Dissociation on Metal Surfaces. Journal of Physical Chemistry C, 2012, 116, 5700-5709.	1.5	11
99	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
100	Spatiotemporal patterns in an isothermal heterogeneous model of a fixedâ€bed reactor. Journal of Chemical Physics, 1994, 101, 9573-9581.	1.2	10
101	One- and two-dimensional spatiotemporal thermal patterns in a fixed-bed reactor. Chemical Engineering Science, 1995, 50, 3125-3141.	1.9	10
102	Theory of the Self-Exchange Electron Transfer in the Dioxygen/Superoxide System in Water. Journal of Physical Chemistry A, 1999, 103, 10699-10707.	1.1	10
103	Spatially â€œchaoticâ€•solutions in reaction-convection models and their bifurcations to moving waves. Physical Review E, 2002, 66, 016204.	0.8	10
104	Comparing flow-reversal and inner recirculation reactors: Experiments and simulations. AICHE Journal, 2003, 49, 1849-1858.	1.8	10
105	Hydrodenitrification with PdCu Catalysts: Catalyst Optimization by Experimental and Quantum Chemical Approaches. Israel Journal of Chemistry, 2006, 46, 1-15.	1.0	10
106	Semianalytical characterization of turbulence from radial impellers, with experimental and numerical validation. AICHE Journal, 2015, 61, 1413-1426.	1.8	10
107	Control strategies for front stabilization in a tubular reactor model. AICHE Journal, 2001, 47, 187-196.	1.8	9
108	Spatiotemporal patterns in models of cross-flow reactors. Regular and oscillatory kinetics. Chemical Engineering Science, 2001, 56, 771-778.	1.9	9

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109	Boundary-induced spatiotemporal complex patterns in excitable systems. Physical Review E, 2006, 73, 066224.	0.8	9
110	Design concepts of a scaled-down autothermal membrane reformer for on board hydrogen production. Chemical Engineering Journal, 2015, 282, 123-136.	6.6	9
111	Dynamics of catalytic reactions and reactors. Catalysis Today, 1997, 36, 461-476.	2.2	8
112	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. Surface Science, 2004, 554, 170-182.	0.8	8
113	Moving waves and spatiotemporal patterns due to weak thermal effects in models of catalytic oxidation. Journal of Chemical Physics, 2005, 122, 194701.	1.2	8
114	Transversal moving-front patterns: Criteria and simulations for two-bed and cylindrical shell packed-bed reactors. Chemical Engineering Science, 2008, 63, 3716-3726.	1.9	8
115	Diffusion on Metal Surfaces: Formalism and Application to CO Diffusion. Journal of Physical Chemistry C, 2008, 112, 15510-15516.	1.5	8
116	Why Turing mechanism is an obstacle to stationary periodic patterns in bounded reaction-diffusion media with advection. Physical Chemistry Chemical Physics, 2010, 12, 3957.	1.3	8
117	Approximate models of concentration-polarization in Pd-membrane separators. Fast numerical analysis. Journal of Membrane Science, 2016, 500, 136-150.	4.1	8
118	Product Composition and Kinetics of Methylal Decomposition on Alumina-Supported Pt, Ni, and Rh Catalysts. Industrial & Engineering Chemistry Research, 2019, 58, 11902-11909.	1.8	8
119	Using weighted global control for stabilizing patterned states. Chaos, 1999, 9, 78-87.	1.0	7
120	Stationary spatially complex solutions in cross-flow reactors with two reactions. AICHE Journal, 2003, 49, 1241-1249.	1.8	7
121	Predicting the activation energy of catalytic dissociation of the heteroatomic AB bond. Chemical Physics, 2006, 324, 129-139.	0.9	7
122	Boundary-induced patterns in excitable systems: The structure of oscillatory domain. Physical Review E, 2007, 75, 056210.	0.8	7
123	H Tunneling Effects on Sequential Dissociation of Methane over Ni(111) and the Overall Rate of Methane Reforming. Journal of Physical Chemistry C, 2015, 119, 9260-9273.	1.5	7
124	Methylal Steam Reforming with Pt/Al₂O₃, Ni/Al₂O₃, and Mixed Cu/ZnO/Al₂O₃ Catalysts. Industrial & Engineering Chemistry Research, 2019, 58, 21382-21391.	1.8	7
125	Permeance inhibition due to reaction, coking and leakage of Pd membranes during methane steam reforming estimated from a micro-kinetic model. Chemical Engineering Journal, 2021, 411, 128272.	6.6	7
126	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

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127	Kinetics falsification by symmetry breaking. 2. Olefin oxidation on a platinum wire. Industrial & Engineering Chemistry Research, 1989, 28, 955-960.	1.8	6
128	Multiplicity patterns of activated-sludge with substrate-inhibition kinetics. Water Research, 1993, 27, 929-938.	5.3	6
129	Patterns due to quintic kinetics in a diffusion-reaction system with global interaction. Journal of Chemical Physics, 1998, 109, 10612-10619.	1.2	6
130	Analysis of design sensitivity of flow-reversal reactors: Simulations, approximations and oxidation experiments. Chemical Engineering Science, 2005, 60, 2991-2998.	1.9	6
131	Activated diffusion in relaxed porous clusters. Chemical Engineering Science, 2007, 62, 2242-2253.	1.9	6
132	Reaction-diffusion patterns on a disk or a square in a model with long-range interaction. , 0, .		6
133	Kinetics falsification by symmetry breaking. 1. Steady-state analysis. Industrial & Engineering Chemistry Research, 1989, 28, 948-954.	1.8	5
134	Spatiotemporal patterns in a heterogeneous model of a catalyst particle. Journal of Chemical Physics, 1996, 105, 289-298.	1.2	5
135	Selectivity and Deactivation of Diffusion-Limited Reactions in a Pore-Fractal Catalyst. Industrial & Engineering Chemistry Research, 1999, 38, 3261-3269.	1.8	5
136	Axial and transversal patterns during CO oxidation in fixed beds. Chemical Engineering Science, 2007, 62, 4948-4953.	1.9	5
137	Bistability in membrane reactors due to membrane inhibition by competitive adsorption of reactants. Chemical Engineering Journal, 2018, 334, 1594-1604.	6.6	5
138	Cross-flow reactor design for Fischer Tropsch synthesis. Chemical Engineering Journal, 2019, 372, 277-293.	6.6	5
139	Stationary fronts due to weak thermal effects in models of catalytic oxidation. Journal of Chemical Physics, 2005, 123, 064708.	1.2	4
140	Approximate characteristics of a moving temperature front in a fixed-bed catalytic reactor: Effect of mass dispersion. Chemical Engineering Journal, 2009, 154, 115-119.	6.6	4
141	Spinning propagation of diffusionally unstable planar fronts. Physical Review E, 2010, 81, 055204.	0.8	4
142	Drifting solitary waves in a reaction-diffusion medium with differential advection. Physical Review E, 2010, 81, 025203.	0.8	4
143	Are 3â€Ð models necessary to simulate packed bed reactors? analysis and 3â€Ð simulations of adiabatic and cooled reactors. AICHE Journal, 2012, 58, 3494-3503.	1.8	4
144	What is the leanest stream to sustain a nonadiabatic loop reactor: Analysis and methane combustion experiments. AICHE Journal, 2017, 63, 2030-2042.	1.8	4

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145	The Design Space of the Embryonic Cell Cycle Oscillator. Biophysical Journal, 2017, 113, 743-752.	0.2	4
146	Fixed-bed reactor design for self-inhibitory substrates. The Chemical Engineering Journal, 1991, 47, B11-B21.	0.4	3
147	Spatiotemporal patterns in models of cross-flow reactors. Catalysis Today, 2001, 70, 383-391.	2.2	3
148	Pinning stationary planar fronts in diffusion-convection-reaction systems. Physical Review E, 2002, 66, 066213.	0.8	3
149	Stabilizing the absolutely or convectively unstable homogeneous solutions of reaction-convection-diffusion systems. Physical Review E, 2004, 70, 026221.	0.8	3
150	Transversal patterns in threeâ€dimensional packed bed reactors: Oscillatory kinetics. AICHE Journal, 2010, 56, 2887-2897.	1.8	3
151	Oxygen-Assisted Water Dissociation on Metal Surfaces: Kinetics and Quantum Effects. Journal of Physical Chemistry C, 2011, 115, 10063-10072.	1.5	3
152	Transversal thermal patterns in packedâ€bed reactors with simple kinetics: Bifurcation criterion and simulations. AICHE Journal, 2011, 57, 735-748.	1.8	3
153	Hydrodynamic instability of thermal fronts in reactive porous media: Spinning patterns. Physical Review E, 2014, 89, 032908.	0.8	3
154	Numerical approaches for computation of fronts. Numerical Methods for Partial Differential Equations, 1990, 6, 43-58.	2.0	2
155	Design criteria for population selection in activated sludge. The Chemical Engineering Journal, 1991, 45, 173.	0.4	2
156	Analysis of excitable waves and spatio-temporal patterns in fixed-bed reactors. Catalysis Today, 1994, 20, 515-523.	2.2	2
157	Control design for suppressing transversal patterns in reactionâ€“(convection)â€“diffusion systems. Journal of Process Control, 2006, 16, 913-921.	1.7	2
158	Prediction of 3D Transversal Patterns in Packed-Bed Reactors Using a Reduced 2D Model: Oscillatory Kinetics. Industrial & Engineering Chemistry Research, 2010, 49, 10558-10564.	1.8	2
159	Diffusion enhancement in composites of nanotubes and porous structures. Molecular Simulation, 2009, 35, 100-108.	0.9	1
160	Comments on â€œTransversal moving-front patterns. Criteria and simulations for two-bed and cylindrical shell packed-bed reactorsâ€•by Nekhamkina and Sheintuch. Chemical Engineering Science, 2009, 64, 426-427.	1.9	1
161	Kinetic effects on transversal instability of planar fronts in packed-bed reactors. Chemical Engineering Journal, 2014, 236, 212-222.	6.6	1
162	Pattern Selection In A Diffusion-Reaction System With Global Or Long-Range Interaction. The IMA Volumes in Mathematics and Its Applications, 1999, , 265-282.	0.5	1

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163	Analysis and Qualitative Modelling of Experimentally Observed Dynamic Features. Springer Series in Synergetics, 1985, , 33-46.	0.2	1
164	Front Stabilization by Finite-Output Control in Reaction-Diffusion Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 315-320.	0.4	0
165	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
166	Using sampled-data dynamic controller to stabilize rotating pulses. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 90-95.	0.4	0
167	Control of moving pulses in an one-dimensional model of cardiac tissue. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 5377-5382.	0.4	0
168	Can the permeance of a Pd-based membrane be predicted from first principles?. Current Opinion in Chemical Engineering, 2015, 9, 27-33.	3.8	0
169	Alkanes Dehydrogenation. , 2011, , 183-200.		0