Michael Menzinger

List of Publications by Year
in descending order

60 papers	1,689 citations	331670 21 h-index	289244 40 g-index
60 all docs	60 docs citations	60 times ranked	734 citing authors

#	Article	IF	Citations
1	The parameter domain of convective instability of the adiabatic packedâ€bed reactor. Canadian Journal of Chemical Engineering, 2015, 93, 1975-1989.	1.7	3
2	Blocking and transmission of traveling flow-distributed-oscillation waves in an absolutely unstable flowing medium. Physical Review E, 2012, 86, 026208.	2.1	1
3	Harmonic resonant excitation of flow-distributed oscillation waves and Turing patterns driven at a growing boundary. Physical Review E, 2009, 80, 026209.	2.1	5
4	Selection of flow-distributed oscillation and Turing patterns by boundary forcing in a linearly growing, oscillating medium. Physical Review E, 2009, 80, 026208.	2.1	5
5	Estimating spectral properties of the thermal instability in packed-bed reactors. Chemical Engineering Science, 2008, 63, 1480-1489.	3.8	10
6	Electronic Chemiluminescence in Gases. Advances in Chemical Physics, 2007, , 1-61.	0.3	38
7	Pattern formation by boundary forcing in convectively unstable, oscillatory media with and without differential transport. Physical Review E, 2005, 72, 026210.	2.1	13
8	Flow-distributed oscillation, flow-velocity modulation, and resonance. Physical Review E, 2005, 72, 027202.	2.1	6
9	Control of chemical pattern formation by a clock-and-wavefront type mechanism. Biophysical Chemistry, 2004, 110, 231-238.	2.8	26
10	Numerical Investigation of Resonance Behaviour of a Tubular Packedâ€Bed Reactor with Nonâ€Uniform Activity. Canadian Journal of Chemical Engineering, 2004, 82, 387-391.	1.7	4
11	Steady-State Multiplicity and Superadiabatic Extinction Waves in the Oxidation of CO/H2 Mixtures over a Pt/Al2O3-Coated Monolith. Industrial & Engineering Chemistry Research, 2003, 42, 37-45.	3.7	32
12	Hysteresis and Extinction Waves in Catalytic CO Oxidation Caused by Reactant Concentration Perturbations in a Packed-Bed Reactor. Industrial & Engineering Chemistry Research, 2003, 42, 1662-1673.	3.7	18
13	Reply to the â€˜Comment on â€œControlled pattern formation in the CDIMA reaction with a moving boundary of illuminationâ€â€™ by J. H. Merkin, Phys. Chem. Chem. Phys., 2003,5, 430. Physical Chemistry Chemical Physics, 2003, 5, 431-431.	2.8	0
14	General theory of nonlinear flow-distributed oscillations. Physical Review E, 2003, 68, 066122.	2.1	15
15	Amplification of Periodic Temperature Disturbances in a Packedâ€Bed Reactor: CO Oxidation over a CuO/Al₂O₃ Catalyst. Canadian Journal of Chemical Engineering, 2003, 81, 1215-1221.	1.7	4
16	Stabilization of stationary excitation pulses in an open flow without long-range inhibition. Physical Review E, 2002, 65, 046202.	2.1	6
17	Propagation of Excitation Pulses and Autocatalytic Fronts in Packed-Bed Reactors. Journal of Physical Chemistry B, 2002, 106, 3751-3758.	2.6	13
18	Experiments on Flow-Distributed Oscillations in the Belousovâ€“Zhabotinsky Reaction. Journal of Physical Chemistry A, 2002, 106, 4897-4903.	2.5	21

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19	Chemical waves in open flows of active media: Their relevance to axial segmentation in biology. Faraday Discussions, 2002, 120, 295-312.	3.2	44
20	Controlled pattern formation in the CDIMA reaction with a moving boundary of illumination. Physical Chemistry Chemical Physics, 2002, 4, 1315-1319.	2.8	25
21	A general mechanism for â€œinexactâ€•phase differences inÂreactionâ€“diffusionâ€“advection systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 304, 149-156.	2.1	12
22	Parameter space analysis, pattern sensitivity and model comparison for Turing and stationary flow-distributed waves (FDS). Physica D: Nonlinear Phenomena, 2001, 160, 79-102.	2.8	54
23	Temperature excursions in packed bed reactors with an axial variation of catalyst activity. Catalysis Today, 2001, 69, 137-146.	4.4	19
24	Temperature response to reactant concentration perturbations in a packedâ€bed reactor. Canadian Journal of Chemical Engineering, 2001, 79, 823-827.	1.7	8
25	Segmentation and Somitogenesis Derived from Phase Dynamics in Growing Oscillatory Media. Journal of Theoretical Biology, 2000, 207, 473-493.	1.7	54
26	Turing instabilities in general systems. Journal of Mathematical Biology, 2000, 41, 493-512.	1.9	122
27	Reply to â€œComment on â€˜Flow-distributed oscillations:â€ƒStationary chemical waves in a reacting flowâ€™ â€•. Physical Review E, 2000, 62, 2994-2995.	2.1	14
28	Non-Turing stationary patterns in flow-distributed oscillators with general diffusion and flow rates. Physical Review E, 2000, 62, 113-119.	2.1	55
29	Pulsating wave propagation in reactive flows: Flow-distributed oscillations. Physical Review E, 2000, 61, 3334-3338.	2.1	19
30	Mercury Drop â€œAttacksâ€•an Oxidant Crystal. Journal of Physical Chemistry B, 2000, 104, 3589-3593.	2.6	40
31	Flow-distributed oscillations: Stationary chemical waves in a reacting flow. Physical Review E, 1999, 60, R3471-R3474.	2.1	72
32	Stirring Effect on Bistability in a CSTR. 2. Theoretical Analysis of the Coalescenceâ^'Redispersion Model for One-Variable Systems. Journal of Physical Chemistry A, 1999, 103, 10866-10873.	2.5	5
33	Stirring Effect on Bistability in a CSTR. 1. Experiments and Simulations for the AsO33-/IO3-Reaction. Journal of Physical Chemistry A, 1999, 103, 10859-10865.	2.5	6
34	Inhomogeneities of CSTR on a Macroscale Due to Spatial Dependence of Micromixing Time:â€‰ The BZ Reaction. Journal of Physical Chemistry A, 1998, 102, 188-191.	2.5	2
35	Reply to Comments on â€œStirring Effects and Phase-Dependent Inhomogeneity in Chemical Oscillations:â€‰ The Belousovâ^'Zhabotinsky Reaction in a CSTRâ€• Journal of Physical Chemistry A, 1997, 101, 8966-8966.	2.5	2
36	Stirring Effects and Phase-Dependent Inhomogeneity in Chemical Oscillations:Â The Belousovâ^'Zhabotinsky Reaction in a CSTR. Journal of Physical Chemistry A, 1997, 101, 2304-2309.	2.5	24

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37	Nonlinear Dynamics of the BZ Reaction: A Simple Experiment that Illustrates Limit Cycles, Chaos, Bifurcations, and Noise. Journal of Chemical Education, 1996, 73, 868.	2.3	24
38	Differential flow instability in the Ginzburg-Landau and Swift-Hohenberg approximations. Physica D: Nonlinear Phenomena, 1996, 95, 306-318.	2.8	3
39	Control of activator-inhibitor systems by differential transport. Physics Letters, Section A: General, Atomic and Solid State Physics, 1996, 216, 262-268.	2.1	6
40	Slow passage through a supercritical Hopf bifurcation: Timeâ€delayed response in the Belousovâ€“Zhabotinsky reaction in a batch reactor. Journal of Chemical Physics, 1996, 105, 10905-10910.	3.0	31
41	Differential Flow Instability in Tubular Flow Reactor:â€‰ Its Convective Nature. The Journal of Physical Chemistry, 1996, 100, 15810-15814.	2.9	12
42	The Differential Flow Instabilities. , 1995, , 365-397.		10
43	Differential flow instability in dynamical systems without an unstable (activator) subsystem. Physical Review Letters, 1994, 72, 2017-2020.	7.8	23
44	Self-organization induced by the differential flow of activator and inhibitor. Physical Review Letters, 1993, 70, 778-781.	7.8	156
45	Dynamics of analogâ€toâ€frequency transduction by excitable systems: Sensory receptors. Journal of Chemical Physics, 1993, 98, 9155-9166.	3.0	4
46	Common dynamics of the differential-flow-induced chemical instability and the multimode instability in a laser with a saturable absorber. Physical Review A, 1993, 48, 1683-1686.	2.5	3
47	Chemical instability induced by a differential flow. Physical Review Letters, 1992, 69, 1193-1196.	7.8	200
48	Interaction of Turing and Hopf bifurcations in chemical systems. Physical Review A, 1992, 46, 6315-6322.	2.5	82
49	Isotope effect on the location of variational transition states: The hydrogen exchange reaction. International Journal of Chemical Kinetics, 1986, 18, 1079-1086.	1.6	0
50	Electronic energy partitioning in reactions occurring on more than one potential energy surface: Metastable Mg(3P) atoms with halogen molecules. Journal of Chemical Physics, 1983, 78, 5612-5620.	3.0	21
51	An ab initio study of the reaction Be(3P) +H2(1Î£g+)â€‰â†’â€‰BeH(2Î£+)+H(2S). Journal of Chemical Physics, 1983, 78, 4592-4596.	3.0	19
52	The Vibrational Spectrum of Tetramethyldioxetane. Spectroscopy Letters, 1983, 16, 945-951.	1.0	4
53	On the dynamical content of excitation functions: Simple linearization procedures. Chemical Physics, 1977, 22, 273-280.	1.9	18
54	Molecular beam chemiluminescence. V. Reactivities of NO (2Î1/2) and (2Î3/2) fine structure components in the NO + O3 â†’ NO*2 + O2 reaction. Journal of Chemical Physics, 1975, 62, 1987-1988.	3.0	25

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55	Molecular beam chemiluminescence. VII. Enhancement of Ba+N2Oâ†'BaO*+N2O cross section through N2O bending vibration: Evidence for electron transfer. Journal of Chemical Physics, 1975, 63, 4557-4559.	3.0	45
56	Energy dependence of the reactions of atomic tritium with 1â€chlorobutane. Journal of Chemical Physics, 1974, 60, 2568-2569.	3.0	7
57	Beam studies of the energy dependence of the reactions of tritium atoms with nâ€hexane, cyclopentane, nâ€butane, and 1â€chlorobutane. Journal of Chemical Physics, 1973, 58, 1741-1752.	3.0	13
58	Beam Studies of the Energy Dependence of Hotâ€Hydrogenâ€Atom Reactions with Cyclohexane. Journal of Chemical Physics, 1969, 50, 2991-3004.	3.0	37
59	High Intensity, Low Energy Spread Ion Source for Chemical Accelerators. Review of Scientific Instruments, 1969, 40, 102-105.	1.3	144
60	Recoil-tritium reactions in the solid phase: absolute yields and phase effects. The Journal of Physical Chemistry, 1968, 72, 1789-1792.	2.9	5