Istvan Lengyel

List of Publications by Year in descending order

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20 papers	1,294 citations	567281 15 h-index	794594 19 g-index
20 all docs	20 docs citations	20 times ranked	658 citing authors

#	Article	IF	Citations
1	Modeling of Turing Structures in the Chlorite--Iodide--Malonic Acid--Starch Reaction System. Science, 1991, 251, 650-652.	12.6	464
2	Experimental and modeling study of oscillations in the chlorine dioxide-iodine-malonic acid reaction. Journal of the American Chemical Society, 1990, 112, 9104-9110.	13.7	146
3	Kinetics of iodine hydrolysis. Inorganic Chemistry, 1993, 32, 5880-5882.	4.0	107
4	Rate Constants for Reactions between Iodine- and Chlorine-Containing Species:Â A Detailed Mechanism of the Chlorine Dioxide/Chlorite-Iodide Reactionâ€. Journal of the American Chemical Society, 1996, 118, 3708-3719.	13.7	107
5	Systematic design of chemical oscillators. Part 65. Batch oscillation in the reaction of chlorine dioxide with iodine and malonic acid. Journal of the American Chemical Society, 1990, 112, 4606-4607.	13.7	104
6	Quasi-two-dimensional Turing patterns in an imposed gradient. Physical Review Letters, 1992, 69, 2729-2732.	7.8	60
7	Diffusionâ€induced instability in chemically reacting systems: Steadyâ€state multiplicity, oscillation, and chaos. Chaos, 1991, 1, 69-76.	2.5	46
8	Computational chemistry predictions of reaction processes in organometallic vapor phase epitaxy. Progress in Crystal Growth and Characterization of Materials, 1997, 35, 117-149.	4.0	45
9	New systems for pattern formation studies. Physica A: Statistical Mechanics and Its Applications, 1992, 188, 26-33.	2.6	34
10	Kinetics and mechanism of autocatalytic oxidation of formaldehyde by nitric acid. International Journal of Chemical Kinetics, 1988, 20, 687-697.	1.6	31
11	A chemical mechanism for in situ boron doping during silicon chemical vapor deposition. Thin Solid Films, 2000, 365, 231-241.	1.8	29
12	Systematic design of chemical oscillators. 72. A transition-metal oscillator: oscillatory oxidation of manganese(II) by periodate in a CSTR. Journal of the American Chemical Society, 1991, 113, 1978-1982.	13.7	24
13	Turing structures. Progress toward a room temperature, closed system. Physica D: Nonlinear Phenomena, 1995, 84, 1-11.	2.8	23
14	Catalyst ignition and extinction: A microkinetics-based bifurcation study of adiabatic reactors for oxidative coupling of methane. Chemical Engineering Science, 2019, 199, 635-651.	3.8	23
15	Systematic design of chemical oscillators. 82. Dynamical study of the chlorine dioxide-iodide open system oscillator. The Journal of Physical Chemistry, 1992, 96, 7032-7037.	2.9	20
16	Kinetics and mechanism of autocatalytic oxidation of Fe(phen)2+3 and Fe(bpy)2+3 by nitric acid. Journal of the Chemical Society Faraday Transactions I, 1988, 84, 229.	1.0	11
17	Numerical bifurcation analysis of large-scale detailed kinetics mechanisms. Current Opinion in Chemical Engineering, 2018, 21, 41-47.	7.8	10
18	The Chemistry behind the First Experimental Chemical Examples of Turing Patterns. , 1995, , 297-322.		5

#	Article	IF	Citations
19	Exotic phenomena in nitric acid oxidations. Reaction Kinetics and Catalysis Letters, 1990, 42, 355-360.	0.6	3
20	Taube's Influence on the Design of Oscillating Reactions. Advances in Chemistry Series, 1997, , 285-295.	0.6	2