Turanyi Tamas

List of Publications by Citations

Source: https://exaly.com/author-pdf/3094948/turanyi-tamas-publications-by-citations.pdf
Version: 2024-04-24

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106 papers	4,015 citations	33 h-index	62 g-index
110 ext. papers	4,477 ext. citations	3.3 avg, IF	5.47 L-index

#	Paper	IF	Citations
106	Sensitivity analysis of complex kinetic systems. Tools and applications. *Journal of Mathematical Chemistry*, **1990**, 5, 203-248	2.1	385
105	Principal component analysis of kinetic models. *International Journal of Chemical Kinetics*, **1985**, 17, 55-81	1.4	244
104	Development and testing of a comprehensive chemical mechanism for the oxidation of methane. *International Journal of Chemical Kinetics*, **2001**, 33, 513-538	1.4	195
103	Mechanistic details of the oscillatory Belousov-Zhabotinskii reaction. *The Journal of Physical Chemistry*, **1990**, 94, 7162-7170		159
102	On the error of the quasi-steady-state approximation. *The Journal of Physical Chemistry*, **1993**, 97, 163-172		144
101	Chapter 4 Mathematical tools for the construction, investigation and reduction of combustion mechanisms. *Comprehensive Chemical Kinetics*, **1997**, 293-437	0.7	142
100	Reaction rate analysis of complex kinetic systems. *International Journal of Chemical Kinetics*, **1989**, 21, 83-99	1.4	119
99	Mechanism reduction for the oscillatory oxidation of hydrogen: Sensitivity and quasi-steady-state analyses. *Combustion and Flame*, **1992**, 91, 107-130	5.3	114
98	Reduction of very large reaction mechanisms using methods based on simulation error minimization. *Combustion and Flame*, **2009**, 156, 417-428	5.3	112
97	Optimization of a hydrogen combustion mechanism using both direct and indirect measurements. *Proceedings of the Combustion Institute*, **2015**, 35, 589-596	5.9	101
96	Applications of sensitivity analysis to combustion chemistry. *Reliability Engineering and System Safety*, **1997**, 57, 41-48	6.3	98
95	Comparison of the performance of several recent hydrogen combustion mechanisms. *Combustion and Flame*, **2014**, 161, 2219-2234	5.3	96
94	Determination of rate parameters based on both direct and indirect measurements. *International Journal of Chemical Kinetics*, **2012**, 44, 284-302	1.4	96
93	Parameterization of reaction mechanisms using orthonormal polynomials. *Computers & Chemistry*, **1994**, 18, 45-54		96
92	Analysis of Kinetic Reaction Mechanisms **2014**,		91
91	Effect of the uncertainty of kinetic and thermodynamic data on methane flame simulation results. *Physical Chemistry Chemical Physics*, **2002**, 4, 2568-2578	3.6	87
90	Comparison of the performance of several recent syngas combustion mechanisms. *Combustion and Flame*, **2015**, 162, 1793-1812	5.3	85

89	Local and global uncertainty analyses of a methane flame model. *Journal of Physical Chemistry A*, **2005**, 109, 9795-807	2.8	82
88	Development of a Joint Hydrogen and Syngas Combustion Mechanism Based on an Optimization Approach. *International Journal of Chemical Kinetics*, **2016**, 48, 407-422	1.4	79
87	Uncertainty analysis of updated hydrogen and carbon monoxide oxidation mechanisms. *Proceedings of the Combustion Institute*, **2005**, 30, 1273-1281	5.9	79
86	Uncertainty of Arrhenius parameters. *International Journal of Chemical Kinetics*, **2011**, 43, 359-378	1.4	76
85	Local and global uncertainty analysis of complex chemical kinetic systems. *Reliability Engineering and System Safety*, **2006**, 91, 1232-1240	6.3	69
84	KINAL: program package for kinetic analysis of reaction mechanisms. *Computers & Chemistry*, **1990**, 14, 253-254		69
83	Direct Kinetic Studies of the Reactions Br + CH3OH and CH2OH + HBr: The Heat of Formation of CH2OH. *The Journal of Physical Chemistry*, **1996**, 100, 19864-19873		64
82	Development of an Ethanol Combustion Mechanism Based on a Hierarchical Optimization Approach. *International Journal of Chemical Kinetics*, **2016**, 48, 423-441	1.4	56
81	Analysis and simplification of the GTF model of the Belousov-Zhabotinskii reaction. *The Journal of Physical Chemistry*, **1993**, 97, 1931-1941		55
80	An investigation of important gas-phase reactions of nitrogenous species from the simulation of experimental measurements in combustion systems. *Combustion and Flame*, **2001**, 124, 573-589	5.3	51
79	Uncertainty analysis of NO production during methane combustion. *International Journal of Chemical Kinetics*, **2008**, 40, 754-768	1.4	44
78	Determination of the uncertainty domain of the Arrhenius parameters needed for the investigation of combustion kinetic models. *Reliability Engineering and System Safety*, **2012**, 107, 29-34	6.3	42
77	Principal component analysis for reducing the Edelson-Field-Noyes model of the Belousov-Zhabotinskii reaction. *The Journal of Physical Chemistry*, **1986**, 90, 1664-1670		40
76	Uncertainty quantification of a newly optimized methanol and formaldehyde combustion mechanism. *Combustion and Flame*, **2017**, 186, 45-64	5.3	39
75	Uncertainty of the rate parameters of several important elementary reactions of the H2 and syngas combustion systems. *Combustion and Flame*, **2015**, 162, 2059-2076	5.3	39
74	Gag-Pol processing during HIV-1 virion maturation: a systems biology approach. *PLoS Computational Biology*, **2013**, 9, e1003103	5	35
73	Kinetic Analysis of Ethyl Iodide Pyrolysis Based on Shock Tube Measurements. *International Journal of Chemical Kinetics*, **2014**, 46, 295-304	1.4	31
72	Application of repro-modeling for the reduction of combustion mechanisms. *Proceedings of the Combustion Institute*, **1994**, 25, 949-955		31

71	Determination of rate parameters of cyclohexane and 1-hexene decomposition reactions. *Energy*, **2012**, 43, 85-93	7.9	29
70	Measurement and investigation of chamber radical sources in the European Photoreactor (EUPHORE). *Journal of Atmospheric Chemistry*, **2006**, 55, 147-166	3.2	27
69	Simulation of the dispersion of nuclear contamination using an adaptive Eulerian grid model. *Journal of Environmental Radioactivity*, **2004**, 75, 59-82	2.4	27
68	Time scale and dimension analysis of a budding yeast cell cycle model. *BMC Bioinformatics*, **2006**, 7, 494	3.6	26
67	Rate sensitivity analysis of a model of the Briggs-Rauscher reaction. *Reaction Kinetics and Catalysis Letters*, **1991**, 45, 235-241		25
66	Non-methane hydrocarbon and aldehyde measurements in Budapest, Hungary. *Atmospheric Environment Part A General Topics*, **1991**, 25, 2103-2110		24
65	Similarity of Sensitivity Functions of Reaction Kinetic Models. *Journal of Physical Chemistry A*, **2003**, 107, 2216-2238	2.8	23
64	Kinetic Modeling of the Decomposition of Carbon Tetrachloride in Thermal Plasma. *Plasma Chemistry and Plasma Processing*, **2005**, 25, 109-119	3.6	23
63	Determination of rate parameters based on NH2 concentration profiles measured in ammonia-doped methane–air flames. *Fuel*, **2018**, 212, 679-683	7.1	22
62	Kinetic analysis of mechanisms of complex pyrolytic reactions. *Journal of Analytical and Applied Pyrolysis*, **2007**, 79, 252-258	6	22
61	Repro-Modelling Based Generation of Intrinsic Low-Dimensional Manifolds. *Journal of Mathematical Chemistry*, **2002**, 31, 345-362	2.1	21
60	The influence of thermal coupling and diffusion on the importance of reactions: The case study of hydrogen–air combustion. *Physical Chemistry Chemical Physics*, **2003**, 5, 3622-3631	3.6	21
59	Hungarian university students' misunderstandings in thermodynamics and chemical kinetics. *Chemistry Education Research and Practice*, **2013**, 14, 105-116	2.1	19
58	Direct measurements of the neopentyl peroxy-hydroperoxy radical isomerisation over the temperature range 660–750 K. *Proceedings of the Combustion Institute*, **1992**, 24, 645-652		18
57	Investigation of ethane pyrolysis and oxidation at high pressures using global optimization based on shock tube data. *Proceedings of the Combustion Institute*, **2017**, 36, 691-698	5.9	16
56	Determination of rate parameters of key N/H/O elementary reactions based on H2/O2/NOx combustion experiments. *Fuel*, **2020**, 264, 116720	7.1	16
55	Modelling ozone fluxes over Hungary. *Atmospheric Environment*, **2004**, 38, 6211-6222	5.3	15
54	Determination of Adsorption and Desorption Parameters from Ignition Temperature Measurements in Catalytic Combustion Systems. *Journal of Physical Chemistry B*, **2003**, 107, 2262-2274	3.4	15

53	On the similarity of the sensitivity functions of methane combustion models. *Combustion Theory and Modelling*, **2005**, 9, 721-738	1.5	15
52	Numerical investigation of the uncertainty of Arrhenius parameters. *Journal of Mathematical Chemistry*, **2011**, 49, 1798-1809	2.1	14
51	An Induction Parameter Model for Shock-Induced Hydrogen Combustion Simulations. *Combustion and Flame*, **1998**, 113, 106-118	5.3	14
50	Analysis of a budding yeast cell cycle model using the shapes of local sensitivity functions. *International Journal of Chemical Kinetics*, **2008**, 40, 710-720	1.4	13
49	Modelling of Carbon Tetrachloride Decomposition in Oxidative RF Thermal Plasma. *Plasma Chemistry and Plasma Processing*, **2006**, 26, 293-318	3.6	13
48	DNS Study of the Optimal Chemical Markers for Heat Release in Syngas Flames. *Flow, Turbulence and Combustion*, **2017**, 98, 1117-1132	2.5	12
47	Rate constants of the reactions of OH radicals with cyclopropane and cyclobutane. *International Journal of Chemical Kinetics*, **1992**, 24, 191-198	1.4	12
46	Chemical reactions in the Titan troposphere during lightning. *Icarus*, **2010**, 207, 938-947	3.8	11
45	Investigation of the effect of correlated uncertain rate parameters on a model of hydrogen combustion using a generalized HDMR method. *Proceedings of the Combustion Institute*, **2017**, 36, 681-689	5.9	10
44	Modelling photochemical air pollutant formation in Hungary using an adaptive grid technique. *International Journal of Environment and Pollution*, **2009**, 36, 44	0.7	10
43	Kinetics of reactions occurring in the unpolluted troposphere, II. Sensitivity analysis. *Reaction Kinetics and Catalysis Letters*, **1990**, 41, 103-108		10
42	Mechanically activated basic polyaluminium chloride as precursor for low-temperature Al2O3 formation. *Scripta Materialia*, **2007**, 57, 619-621	5.6	9
41	Utilising artificial neural network and repro-modelling in turbulent combustion		9
40	Comparison of detailed reaction mechanisms for homogeneous ammonia combustion. *Zeitschrift Fur Physikalische Chemie*, **2020**, 234, 1329-1357	3.1	9
39	Investigation of the correlation of sensitivity vectors of hydrogen combustion models. *International Journal of Chemical Kinetics*, **2004**, 36, 238-252	1.4	8
38	Investigation and Improvement of Reaction Mechanisms Using Sensitivity Analysis and Optimization. *Green Energy and Technology*, **2013**, 411-445	0.6	8
37	Determination of the adsorption and desorption parameters for ethene and propene from measurements of the heterogeneous ignition temperature. *Combustion and Flame*, **2005**, 142, 107-116	5.3	7
36	Low-temperature mechanochemical thermal synthesis of Al2O3 nanocrystals. *Materials Research Bulletin*, **2011**, 46, 2135-2140	5.1	6

35	The method of quasi-stationary sensitivity analysis. *Journal of Mathematical Chemistry*, **1988**, 2, 401-409	2.1	6
34	Formation of NO in High-Temperature N2/O2/H2O Mixtures: Re-evaluation of Rate Coefficients. *Energy & Fuels*, **2018**, 32, 10114-10120	4.1	6
33	Effect of the soil wetness state on the stomatal ozone fluxes over Hungary. *International Journal of Environment and Pollution*, **2009**, 36, 180	0.7	5
32	Generation of model reactions leading to limit cycle behavior. *Reaction Kinetics and Catalysis Letters* , **1982**, 18, 65-71		5
31	The kinetics of hydroxyl radical reactions with cyclopropane and cyclobutane. *Journal of Chemical Sciences*, **1991**, 103, 499-503	1.8	5
30	Unified Development Solution for Cluster and Grid Computing and Its Application in Chemistry. *Lecture Notes in Computer Science*, **2004**, 226-235	0.9	5
29	Comparison of Methane Combustion Mechanisms Using Shock Tube and Rapid Compression Machine Ignition Delay Time Measurements. *Energy & Fuels*, **2021**, 35, 12329-12351	4.1	5
28	The Simulation of Photochemical Smog Episodes in Hungary and Central Europe Using Adaptive Gridding Models. *Lecture Notes in Computer Science*, **2001**, 67-76	0.9	5
27	Mechanism Reduction to Skeletal Form and Species Lumping. *Green Energy and Technology*, **2013**, 447-466	0.6	5
26	Reduction of Reaction Mechanisms **2014**, 183-312		4
25	Relaxation of concentration perturbation in chemical kinetic systems. *Reaction Kinetics and Catalysis Letters*, **2009**, 96, 269-278		4
24	Comparison of methane combustion mechanisms using laminar burning velocity measurements. *Combustion and Flame*, **2022**, 238, 111867	5.3	4
23	Investigation of the effect of correlated uncertain rate parameters via the calculation of global and local sensitivity indices. *Journal of Mathematical Chemistry*, **2018**, 56, 864-889	2.1	4
22	Sensitivity Analysis of Bacterial Chemotaxis Models. *Procedia Computer Science*, **2011**, 7, 233-234	1.6	3
21	Main sources of uncertainty in recent methanol/NOx combustion models. *International Journal of Chemical Kinetics*, **2021**, 53, 884-900	1.4	3
20	Low temperature first ignition of n-butane. *Combustion Theory and Modelling*, **2019**, 23, 1150-1168	1.5	2
19	CCl4 Decomposition in RF Thermal Plasma in Inert and Oxidative Environments. *Plasma Chemistry and Plasma Processing*, **2010**, 30, 281-286	3.6	2
18	Several Exact Results on Deterministic Exotic Kinetics. *Zeitschrift Fur Physikalische Chemie*, **1983**, 264O, 449-463	3.1	2

17	Sensitivity and Uncertainty Analyses **2014**, 61-144		1
16	Development of a grid enabled chemistry application. *International Journal of Computational Science and Engineering*, **2009**, 4, 195	0.4	1
15	Uncertainty analysis of varying temperature chemical kinetic systems. *Procedia, Social and Behavioral Sciences*, **2010**, 2, 7757-7758		1
14	Collisional energy transfer in the two-channel decomposition of 1,1,2,2-tetrafluorocyclobutane and 1-methyl-2,2,3,3-tetrafluorocyclobutane, I. Gas/gas collisons. *Reaction Kinetics and Catalysis Letters*, **1993**, 51, 401-408		1
13	The importance of chemical mechanisms in sonochemical modelling.. *Ultrasonics Sonochemistry*, **2022**, 83, 105925	8.9	1
12	Design of combustion experiments using differential entropy. *Combustion Theory and Modelling*,1-24	1.5	1
11	Modelling Photochemical Air Pollution in Hungary Using an Adaptive Grid Model **2002**, 264-273		1
10	Storage of Chemical Kinetic Information. *Green Energy and Technology*, **2013**, 485-512	0.6	1
9	Pyrolysis and oxidation of a light naphtha fuel and its surrogate blend. *Combustion and Flame*, **2022**, 240, 111979	5.3	0
8	Uncertainty Quantification of Chemical Kinetic Reaction Rate Coefficients. *Mathematics in Industry*, **2020**, 35-44	0.2	0
7	Computer Codes for the Study of Complex Reaction Systems **2014**, 337-351		
6	Similarity of Sensitivity Functions **2014**, 313-335		
5	Mechanism Construction and the Sources of Data **2014**, 39-52		
4	Reaction Kinetics Basics **2014**, 5-37		
3	Timescale Analysis **2014**, 145-182		
2	Collisional energy transfer in the two-channel decomposition of 1,1,2,2-tetrafluorocyclobutane and 1-methyl-2,2,3,3-tetrafluorocyclobutane, II. Gas/wall collisions. *Reaction Kinetics and Catalysis Letters*, **1993**, 51, 409-414		
1	Analysis of Complex Reaction Schemes **2016**,		