

# Attila K Horváth

## List of Publications by Year in descending order

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75  
papers

1,331  
citations

361413

20  
h-index

434195

31  
g-index

78  
all docs

78  
docs citations

78  
times ranked

831  
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of Turing Structures by Periodic Illumination. <i>Physical Review Letters</i> , 1999, 83, 2950-2952.	7.8	92
2	Stability of gamma-valerolactone under neutral, acidic, and basic conditions. <i>Structural Chemistry</i> , 2017, 28, 423-429.	2.0	57
3	Kinetics and Mechanism of the Decomposition of Chlorous Acid. <i>Journal of Physical Chemistry A</i> , 2003, 107, 6966-6973.	2.5	56
4	Classification of Clock Reactions. <i>ChemPhysChem</i> , 2015, 16, 588-594.	2.1	48
5	Three Autocatalysts and Self-Inhibition in a Single Reaction: A Detailed Mechanism of the Chlorite-Tetrathionate Reaction. <i>Inorganic Chemistry</i> , 2006, 45, 9877-9883.	4.0	44
6	Recent Developments in the Chemistry of Thiourea Oxides. <i>Chemistry - A European Journal</i> , 2014, 20, 14164-14176.	3.3	44
7	Autocatalysis and Self-Inhibition: Coupled Kinetic Phenomena in the Chlorite-Tetrathionate Reaction. <i>Journal of the American Chemical Society</i> , 2004, 126, 6246-6247.	13.7	38
8	Kinetics and Mechanism of the Decomposition of Tetrathionate Ion in Alkaline Medium. <i>Inorganic Chemistry</i> , 2007, 46, 7654-7661.	4.0	37
9	Kinetics and Mechanism of the Reaction between Thiosulfate and Chlorine Dioxide. <i>Journal of Physical Chemistry A</i> , 1998, 102, 7267-7272.	2.5	35
10	Oscillatory Photochemical Decomposition of Tetrathionate Ion. <i>Journal of the American Chemical Society</i> , 2002, 124, 10956-10957.	13.7	34
11	Effect of Chloride Ion on the Kinetics and Mechanism of the Reaction between Chlorite Ion and Hypochlorous Acid. <i>Inorganic Chemistry</i> , 2008, 47, 7914-7920.	4.0	33
12	Pattern formation in the iodate-sulfite-thiosulfate reaction-diffusion system. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 131-137.	2.8	33
13	Clarifying the Equilibrium Speciation of Periodate Ions in Aqueous Medium. <i>Inorganic Chemistry</i> , 2017, 56, 11417-11425.	4.0	33
14	Kinetics and Mechanism of the Chlorine Dioxide-Tetrathionate Reaction. <i>Journal of Physical Chemistry A</i> , 2003, 107, 10063-10068.	2.5	29
15	Kinetics and Mechanism of the Oxidation of Sulfite by Chlorine Dioxide in a Slightly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2006, 110, 4753-4758.	2.5	29
16	Kinetics and mechanism of the reaction between hypochlorous acid and tetrathionate ion. <i>International Journal of Chemical Kinetics</i> , 2000, 32, 395-402.	1.6	23
17	Kinetics of Photoresponse of the Chlorine Dioxide-Iodine-Malonic Acid Reaction. <i>Journal of Physical Chemistry A</i> , 2000, 104, 5766-5769.	2.5	23
18	Homogeneous Pd-Catalyzed Heck Coupling in $\gamma$ -Valerolactone as a Green Reaction Medium: A Catalytic, Kinetic, and Computational Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9926-9936.	6.7	22

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19	Unexpected Formation of Higher Polythionates in the Oxidation of Thiosulfate by Hypochlorous Acid in a Slightly Acidic Medium. <i>Journal of Physical Chemistry B</i> , 2006, 110, 2467-2470.	2.6	21
20	Improved calibration and use of stopped-flow instruments. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 2575-2586.	2.8	20
21	A Three-Variable Model for the Explanation of the "Supercatalytic" Effect of Hydrogen Ion in the Chlorite-Tetrathionate Reaction. <i>Journal of Physical Chemistry A</i> , 2005, 109, 5124-5128.	2.5	20
22	Kinetics and Mechanism of the Oxidation of Tetrathionate by Iodine in a Slightly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2007, 111, 4235-4241.	2.5	19
23	Compatible Mechanism for a Simultaneous Description of the Roebuck, Dushman, and Iodate-Arsenous Acid Reactions in an Acidic Medium. <i>Inorganic Chemistry</i> , 2016, 55, 1595-1603.	4.0	18
24	Kinetics and Mechanism of the Chlorine Dioxide-Trithionate Reaction. <i>Journal of Physical Chemistry A</i> , 2012, 116, 2911-2919.	2.5	17
25	Autocatalysis-Driven Clock Reaction II: Kinetics of the Pentathionate-Periodate Reaction. <i>Journal of Physical Chemistry A</i> , 2014, 118, 9811-9819.	2.5	17
26	A Possible Candidate to Be Classified as an Autocatalysis-Driven Clock Reaction: Kinetics of the Pentathionate-Iodate Reaction. <i>Journal of Physical Chemistry A</i> , 2014, 118, 6171-6180.	2.5	17
27	Inherent Pitfalls in the Simplified Evaluation of Kinetic Curves. <i>Journal of Physical Chemistry A</i> , 2007, 111, 8104-8109.	2.5	16
28	Simultaneous Investigation of the Landolt and Dushman Reactions. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5954-5959.	2.5	16
29	Non-Triiodide Based Autoinhibition by Iodide Ion in the Trithionate-Iodine Reaction. <i>Journal of Physical Chemistry A</i> , 2010, 114, 6521-6526.	2.5	16
30	Kinetics and Mechanism of Alkaline Decomposition of the Pentathionate Ion by the Simultaneous Tracking of Different Sulfur Species by High-Performance Liquid Chromatography. <i>Inorganic Chemistry</i> , 2011, 50, 9670-9677.	4.0	16
31	Bisulfite-Driven Autocatalysis in the Bromate-Thiosulfate Reaction in a Slightly Acidic Medium. <i>Inorganic Chemistry</i> , 2012, 51, 12062-12064.	4.0	16
32	General Pathway of Sulfur-Chain Breakage of Polythionates by Iodine Confirmed by the Kinetics and Mechanism of the Pentathionate-Iodine Reaction. <i>Inorganic Chemistry</i> , 2012, 51, 7837-7843.	4.0	16
33	On the Complexity of Kinetics and the Mechanism of the Thiosulfate-Periodate Reaction. <i>Inorganic Chemistry</i> , 2011, 50, 5793-5802.	4.0	15
34	Reactivity of Small Oxoacids of Sulfur. <i>Molecules</i> , 2019, 24, 2768.	3.8	15
35	High Performance Liquid Chromatography Study on the Kinetics and Mechanism of Chlorite-Thiosulfate Reaction in Slightly Alkaline Medium. <i>Journal of Physical Chemistry A</i> , 2011, 115, 1853-1860.	2.5	14
36	Kinetics and Mechanism of the Oxidation of Pentathionate Ion by Chlorine Dioxide in a Slightly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2014, 118, 1293-1299.	2.5	14

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37	Pitfall of an Initial Rate Study: On the Kinetics and Mechanism of the Reaction of Periodate with Iodide Ions in a Slightly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2007, 111, 890-896.	2.5	13
38	Photochemically induced catalysis of iodide ion and iodine in the tetrathionate–periodate reaction. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 6742.	2.8	12
39	Initial inhomogeneity-induced crazy-clock behavior in the iodate–arsenous acid reaction in a buffered medium under stirred batch conditions. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22187-22194.	2.8	12
40	Kinetics and Mechanism of the Oxidation of Thiourea Dioxide by Iodine in a Slightly Acidic Medium. <i>Inorganic Chemistry</i> , 2017, 56, 4679-4687.	4.0	12
41	Correct classification and identification of autocatalysis. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7178-7189.	2.8	12
42	Revised Explanation of the pH Oscillations in the Iodate–Thiosulfate–Sulfite System. <i>Journal of Physical Chemistry A</i> , 2008, 112, 3935-3942.	2.5	11
43	Kinetic Evidence of Tautomerism of Thiourea Dioxide in Aqueous Acidic Solutions. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 1875-1879.	2.0	11
44	Convection-Induced Fingering Fronts in the Chlorite–Trithionate Reaction. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2514-2520.	2.5	11
45	Theoretical Investigation on the Concentration Dependence of the Landolt Time. <i>Journal of Physical Chemistry A</i> , 2008, 112, 7868-7872.	2.5	10
46	Complex Kinetics of a Landolt-Type Reaction: The Later Phase of the Thiosulfate–Iodate Reaction. <i>Journal of Physical Chemistry A</i> , 2010, 114, 5752-5758.	2.5	10
47	Kinetics and Mechanism of the Alkaline Decomposition of Hexathionate Ion. <i>Journal of Physical Chemistry A</i> , 2013, 117, 2924-2931.	2.5	10
48	Kinetics of the Two-Stage Oxidation of Sulfide by Chlorine Dioxide. <i>Inorganic Chemistry</i> , 2018, 57, 10189-10198.	4.0	10
49	Exact Concentration Dependence of the Landolt Time in the Thiourea Dioxide–Bromate Substrate-Depletive Clock Reaction. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3959-3968.	2.5	10
50	Simultaneous Evaluation of Different Types of Kinetic Traces of a Complex System: Kinetics and Mechanism of the Tetrathionate–Bromine Reaction. <i>Journal of Physical Chemistry A</i> , 2009, 113, 9988-9996.	2.5	9
51	Kinetics and Mechanism of the Oxidation of Bromide by Periodate in Aqueous Acidic Solution. <i>Journal of Physical Chemistry A</i> , 2014, 118, 10713-10719.	2.5	9
52	Autocatalysis-Driven Clock Reaction III: Clarifying the Kinetics and Mechanism of the Thiourea Dioxide–Iodate Reaction in an Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2019, 123, 1740-1748.	2.5	9
53	An improved chemical model for the quantitative description of the front propagation in the tetrathionate–chlorite reaction. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2356.	2.8	8
54	Mechanism Involving Hydrogen Sulfite Ions, Chlorite Ions, and Hypochlorous Acid as Key Intermediates of the Autocatalytic Chlorine Dioxide–Thiourea Dioxide Reaction. <i>European Journal of Inorganic Chemistry</i> , 2015, 2015, 5011-5020.	2.0	8

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55	Comprehensive Simultaneous Kinetic Study of Sulfitolysis and Thiosulfatolysis of Tetrathionate Ion: Unravelling the Unique pH Dependence of Thiosulfatolysis. <i>Journal of Physical Chemistry A</i> , 2015, 119, 1238-1245.	2.5	8
56	Investigation of the Halogenate-Hydrogen Peroxide Reactions Using the Electron Paramagnetic Resonance Spin Trapping Technique. <i>Journal of Physical Chemistry A</i> , 2017, 121, 3207-3212.	2.5	8
57	Reactions of aquacobalamin and cob(II)alamin with chlorite and chlorine dioxide. <i>Journal of Biological Inorganic Chemistry</i> , 2017, 22, 453-459.	2.6	8
58	Transition from Low to High Iodide and Iodine Concentration States in the Briggs-Rauscher Reaction: Evidence on Crazy Clock Behavior. <i>Journal of Physical Chemistry A</i> , 2018, 122, 482-491.	2.5	8
59	Combined capillary electrophoresis and high performance liquid chromatography studies on the kinetics and mechanism of the hydrogen peroxide-thiocyanate reaction in a weakly alkaline solution. <i>Talanta</i> , 2014, 120, 10-16.	5.5	7
60	On the Kinetics and Mechanism of the Thiourea Dioxide-Periodate Autocatalysis-Driven Iodine-Clock Reaction. <i>Journal of Physical Chemistry A</i> , 2019, 123, 7582-7589.	2.5	7
61	A rate law model for the explanation of complex pH oscillations in the thiourea-iodate-sulfite flow system. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 1502-1506.	2.8	6
62	Compatible mechanism to characterize three independent but cross-coupled reactions of chlorite ion. <i>Chaos</i> , 2015, 25, 064604.	2.5	6
63	Kinetics and Mechanism of the Concurrent Reactions of Hexathionate with S(IV) and Thiosulfate in a Slightly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2019, 123, 5418-5427.	2.5	6
64	Law of Mass Action Type Chemical Mechanisms for Modeling Autocatalysis and Hypercycles: Their Role in the Evolutionary Race. <i>ChemPhysChem</i> , 2020, 21, 1703-1710.	2.1	6
65	Autoinhibition by Iodide Ion in the Methionine-Iodine Reaction. <i>Journal of Physical Chemistry A</i> , 2020, 124, 6029-6038.	2.5	6
66	Bistability in the nitric acid-hydroxylamine CSTR system. <i>International Journal of Chemical Kinetics</i> , 1994, 26, 991-996.	1.6	5
67	Revisiting the Kinetics and Mechanism of the Tetrathionate-Hypochlorous Acid Reaction in Nearly Neutral Medium. <i>Journal of Physical Chemistry A</i> , 2009, 113, 13907-13912.	2.5	5
68	A New System for Studying Spatial Front Instabilities: The Supercatalytic Chlorite-Trithionate Reaction. <i>Journal of Physical Chemistry A</i> , 2014, 118, 815-821.	2.5	5
69	A Simple Kinetic Model for Description of the Iodate-Arsenous Acid Reaction: Experimental Evidence of the Direct Reaction. <i>Journal of Physical Chemistry A</i> , 2015, 119, 11053-11058.	2.5	5
70	Kinetics and Mechanism of the Chlorite-Periodate System: Formation of a Short-Lived Key Intermediate OClOIO <sub>3</sub> and Its Subsequent Reactions. <i>Inorganic Chemistry</i> , 2016, 55, 2436-2440.	4.0	4
71	Imperfect mixing as a dominant factor leading to stochastic behavior: a new system exhibiting crazy clock behavior. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14145-14154.	2.8	4
72	Kinetics and Mechanism of the Hypochlorous Acid-Trithionate Reaction. <i>Journal of Physical Chemistry A</i> , 2013, 117, 8836-8842.	2.5	3

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73	Some physical parameters influencing the comprehensive evaluation of kinetic data in photochemical reactions and its application in the periodate-chemistry. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 388, 112021.	3.9	3
74	Autocatalytic Oxidation of Trithionate by Iodate in a Strongly Acidic Medium. <i>Journal of Physical Chemistry A</i> , 2017, 121, 8189-8196.	2.5	1
75	Kinetics and mechanism of the reaction between hypochlorous acid and tetrathionate ion. <i>International Journal of Chemical Kinetics</i> , 2000, 32, 395-402.	1.6	1