Stephen Mezyk

List of Publications by Year
in descending order

98 papers	3,554 citations	159358 30 h-index	143772 57 g-index
100 all docs	100 docs citations	100 times ranked	2996 citing authors

#	Article	IF	Citations
1	Critical Review of UV-Advanced Reduction Processes for the Treatment of Chemical Contaminants in Water. ACS Environmental Au, 2022, 2, 178-205.	3.3	39
2	Transient Radiation-Induced Berkelium(III) and Californium(III) Redox Chemistry in Aqueous Solution. Inorganic Chemistry, 2022, 61, 10822-10832.	1.9	3
3	Radiation-induced effects on the extraction properties of hexa-n-octylnitrilo-triacetamide (HONTA) complexes of americium and europium. Physical Chemistry Chemical Physics, 2021, 23, 1343-1351.	1.3	15
4	Curium(<scp>iii</scp>) radiation-induced reaction kinetics in aqueous media. Dalton Transactions, 2021, 50, 10853-10859.	1.6	5
5	Gamma and pulsed electron radiolysis studies of CyMe4BTBP and CyMe4BTPhen: Identification of radiolysis products and effects on the hydrometallurgical separation of trivalent actinides and lanthanides. Radiation Physics and Chemistry, 2021, 189, 109696.	1.4	4
6	Influence of uranyl complexation on the reaction kinetics of the dodecane radical cation with used nuclear fuel extraction ligands (TBP, DEHBA, and DEHiBA). Physical Chemistry Chemical Physics, 2021, 23, 24589-24597.	1.3	13
7	Probing activated radioprotection of simple hydrophilic phosphonic acids in aqueous solution. Radiation Physics and Chemistry, 2020, 170, 108636.	1.4	0
8	DEHBA (di-2-ethylhexylbutyramide) gamma radiolysis under spent nuclear fuel solvent extraction process conditions. Radiation Physics and Chemistry, 2020, 170, 108608.	1.4	7
9	Radiolytic degradation of formic acid and formate in aqueous solution: modeling the final stages of organic mineralization under advanced oxidation process conditions. Water Research, 2020, 186, 116314.	5.3	7
10	Dataset and kinetic model reaction compilation for the radical-induced degradation of formic acid and formate in aqueous solution. Data in Brief, 2020, 32, 106271.	0.5	0
11	Does addition of 1-octanol as a phase modifier provide radical scavenging radioprotection for N,N,Nâ€²,Nâ€²-tetraoctyldiglycolamide (TODGA)?. Physical Chemistry Chemical Physics, 2020, 22, 24978-24985.	1.3	12
12	³¹P NMR study of the activated radioprotection mechanism of octylphenyl-N,N-diisobutylcarbamoylmethyl phosphine oxide (CMPO) and analogues. Dalton Transactions, 2019, 48, 11547-11555.	1.6	9
13	Effect of chemical environment on the radiation chemistry of N,N-di-(2-ethylhexyl)butyramide (DEHBA) and plutonium retention. Dalton Transactions, 2019, 48, 14450-14460.	1.6	16
14	In-situ chemical oxidation of chlorendic acid by persulfate: Elucidation of the roles of adsorption and oxidation on chlorendic acid removal. Water Research, 2019, 162, 78-86.	5.3	7
15	Effect of Ionizing Radiation on the Redox Chemistry of Penta- and Hexavalent Americium. Inorganic Chemistry, 2019, 58, 8551-8559.	1.9	18
16	Employing Luminescence to Determine Eu-DTPA Complex Formation Rate Constants in Lactate and Citrate Media: Experiment and Aggregate-Species Kinetic Modelling. Solvent Extraction and Ion Exchange, 2019, 37, 53-64.	0.8	1
17	Time-resolved and steady-state irradiation of hydrophilic sulfonated bis-triazinyl-(bi)pyridines â€“ modelling radiolytic degradation. Dalton Transactions, 2019, 48, 4547-4554.	1.6	12
18	Gamma radiolysis of hydrophilic diglycolamide ligands in concentrated aqueous nitrate solution. Dalton Transactions, 2019, 48, 17005-17013.	1.6	19

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19	UV Photolysis of Chloramine and Persulfate for 1,4-Dioxane Removal in Reverse-Osmosis Permeate for Potable Water Reuse. Environmental Science & Technology, 2018, 52, 6417-6425.	4.6	107
20	Kinetic studies of the AOP radical-based oxidative and reductive destruction of pesticides and model compounds in water. Chemosphere, 2018, 197, 193-199.	4.2	11
21	Dissociation rate kinetics of europium-DTPA complexes. Journal of Radioanalytical and Nuclear Chemistry, 2018, 318, 649-652.	0.7	1
22	Radiolytic and hydrolytic degradation of the hydrophilic diglycolamides. Solvent Extraction and Ion Exchange, 2018, 36, 347-359.	0.8	25
23	Elucidating the Elementary Reaction Pathways and Kinetics of Hydroxyl Radical-Induced Acetone Degradation in Aqueous Phase Advanced Oxidation Processes. Environmental Science & Technology, 2018, 52, 7763-7774.	4.6	51
24	Decomposition of Iodinated Pharmaceuticals by UV-254 nm-assisted Advanced Oxidation Processes. Journal of Hazardous Materials, 2017, 323, 489-499.	6.5	60
25	Indirect photodegradation of the lampricides TFM and niclosamide. Environmental Sciences: Processes and Impacts, 2017, 19, 1028-1039.	1.7	13
26	Complications in complexation kinetics for lanthanides with DTPA using dye probe molecules in aqueous solution. RSC Advances, 2017, 7, 26507-26512.	1.7	7
27	Impact of the Ultraviolet Photolysis of Monochloramine on 1,4-Dioxane Removal: New Insights into Potable Water Reuse. Environmental Science and Technology Letters, 2017, 4, 26-30.	3.9	112
28	Temperature dependence of hydroxyl radical reactions with chloramine species in aqueous solution. Chemosphere, 2017, 187, 123-129.	4.2	19
29	The Reactivity of the Nitrate Radical (^{â€¢} NO₃) in Aqueous and Organic Solutions. International Journal of Chemical Kinetics, 2017, 49, 635-642.	1.0	23
30	Extraction of 211At from nitric acid solutions into various organic solvents for use as an Î±-source for radiation chemistry studies. Journal of Radioanalytical and Nuclear Chemistry, 2017, 314, 235-239.	0.7	15
31	Kinetics of the Autoreduction of Hexavalent Americium in Aqueous Nitric Acid. Inorganic Chemistry, 2017, 56, 8295-8301.	1.9	23
32	Investigation of the Coupled Effects of Molecular Weight and Charge-Transfer Interactions on the Optical and Photochemical Properties of Dissolved Organic Matter. Environmental Science & Technology, 2016, 50, 8093-8102.	4.6	97
33	Reevaluation of Neptuniumâ€“Nitric Acid Radiation Chemistry by Multiscale Modeling. Journal of Physical Chemistry B, 2016, 120, 12643-12649.	1.2	14
34	The Chemistry of Separations Ligand Degradation by Organic Radical Cations. Procedia Chemistry, 2016, 21, 61-65.	0.7	14
35	The role of organic solvent radical cations in separations ligand degradation. Journal of Radioanalytical and Nuclear Chemistry, 2016, 307, 2445-2449.	0.7	22
36	Isotope Dependence and Quantum Effects on Atomic Hydrogen Diffusion in Liquid Water. Journal of Physical Chemistry B, 2016, 120, 1771-1779.	1.2	8

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37	Gamma-Radiolytic Stability of Solvents Containing C5-BPP (2,6-Bis(5-(2,2-dimethylpropyl)-1H-pyrazol-3-yl)pyridine) for Actinide(III)/Lanthanide(III) Separation. Solvent Extraction and Ion Exchange, 2016, 34, 1-12.	0.8	13
38	A Comparison of theÎ³-Radiolysis of TODGA and T(EH)DGA Using UHPLC-ESI-MS Analysis. Solvent Extraction and Ion Exchange, 2015, 33, 431-447.	0.8	57
39	UV Photodegradation of Enoxacin in Water: Kinetics and Degradation Pathways. Journal of Environmental Engineering, ASCE, 2015, 141, .	0.7	12
40	Kinetics of the reaction between the hydroxyl radical and organic matter standards from the International Humic Substance Society. Journal of Soils and Sediments, 2014, 14, 298-304.	1.5	19
41	The Radiation Chemistry of CMPO: Part 2. Alpha Radiolysis. Solvent Extraction and Ion Exchange, 2014, 32, 167-178.	0.8	19
42	Degradation kinetics and mechanism of Î²-lactam antibiotics by the activation of H2O2 and Na2S2O8 under UV-254nm irradiation. Journal of Hazardous Materials, 2014, 279, 375-383.	6.5	236
43	Identifying the factors that influence the reactivity of effluent organic matter with hydroxyl radicals. Water Research, 2014, 50, 408-419.	5.3	111
44	Using Polyethylene Glycols To Understand the Temperature Dependence of the Dissolved Organic Matter-HOâ€¢ Reaction. ACS Symposium Series, 2014, , 181-191.	0.5	0
45	Photochemical degradation of Corexit components in ocean water. Chemosphere, 2014, 111, 596-602.	4.2	13
46	Alpha and gamma radiolysis of nuclear solvent extraction ligands used for An(III) and Ln(III) separations. Journal of Radioanalytical and Nuclear Chemistry, 2013, 296, 711-715.	0.7	14
47	Elucidating the radical kinetics involved in the radiolytic destruction of lanthanide-complexed DTPA. Journal of Radioanalytical and Nuclear Chemistry, 2013, 296, 717-720.	0.7	0
48	The Radiation Chemistry of CMPO: Part 1. Gamma Radiolysis. Solvent Extraction and Ion Exchange, 2013, 31, 715-730.	0.8	33
49	Kinetic study of the reactions between chloramine disinfectants and hydrogen peroxide: Temperature dependence and reaction mechanism. Chemosphere, 2013, 92, 1417-1422.	4.2	31
50	Quantitative Removal of Î²-Lactam Antibiotic Activity by Hydroxyl Radical Reaction in Water: How Much Oxidation is Enough?. Journal of Advanced Oxidation Technologies, 2013, 16, .	0.5	0
51	Radical-Based Destruction of Nitramines in Water: Kinetics and Efficiencies of Hydroxyl Radical and Hydrated Electron Reactions. Journal of Physical Chemistry A, 2012, 116, 8185-8190.	1.1	4
52	Kinetic model for the radical degradation of tri-halonitromethane disinfection byproducts in water. Radiation Physics and Chemistry, 2012, 81, 1646-1652.	1.4	6
53	Characterization of CMPO and its radiolysis products by direct infusion ESI-MS. Talanta, 2012, 99, 909-917.	2.9	12
54	Determination of CMPO using HPLCâ€“UV. Journal of Chromatography A, 2012, 1243, 47-52.	1.8	10

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55	Temperature Dependence of the Reaction between the Hydroxyl Radical and Organic Matter. Environmental Science & Technology, 2011, 45, 6932-6937.	4.6	73
56	Radiolytic Degradation in Lanthanide/Actinide Separation Ligandsâ€“NOPOPO: Radical Kinetics and Efficiencies Determinations. Solvent Extraction and Ion Exchange, 2011, 29, 637-654.	0.8	1
57	Removing Estrogenic Steroids from Waters: The Role of Reducing Hydrated Electron Reactions. Journal of Advanced Oxidation Technologies, 2011, 14, .	0.5	0
58	Remediation of Chemically-Contaminated Waters Using Sulfate Radical Reactions: Kinetic Studies. ACS Symposium Series, 2011, , 247-263.	0.5	22
59	Evaluation of parameters influencing removal efficiencies for organic contaminant degradation in advanced oxidation processes. Journal of Water Supply: Research and Technology - AQUA, 2011, 60, 69-78.	0.6	11
60	The Radiation Chemistry of the Cs-7SB Modifier used in Cs and Sr Solvent Extraction. Solvent Extraction and Ion Exchange, 2011, 29, 106-127.	0.8	6
61	Kinetics and Efficiencies of Radiolytic Degradation in Lanthanide/Actinide Separation Ligands - NOPOPO. ACS Symposium Series, 2010, , 231-242.	0.5	0
62	Absolute kinetics and reaction efficiencies of hydroxyl-radical-induced degradation of methyl isothiocyanate (MITC) in different quality waters. Chemosphere, 2010, 81, 339-344.	4.2	7
63	Removing Steroids from Contaminated Waters Using Radical Reactions. ACS Symposium Series, 2010, , 213-225.	0.5	2
64	Anisole nitration during gamma-irradiation of aqueous nitrite and nitrate solutions: free radical versus ionic mechanisms. Environmental Chemistry, 2010, 7, 183.	0.7	7
65	Reactivity of Effluent Organic Matter (EfOM) with Hydroxyl Radical as a Function of Molecular Weight. Environmental Science & Technology, 2010, 44, 5714-5720.	4.6	118
66	Free-Radical Chemistry of Disinfection Byproducts. 3. Degradation Mechanisms of Chloronitromethane, Bromonitromethane, and Dichloronitromethane. Journal of Physical Chemistry A, 2010, 114, 117-125.	1.1	16
67	Detailed Investigation of the Radical-Induced Destruction of Chemical Warfare Agent Simulants in Aqueous Solution. Journal of Physical Chemistry B, 2010, 114, 7681-7685.	1.2	16
68	Hydroxyl-Radical-Induced Degradative Oxidation of Î²-Lactam Antibiotics in Water: Absolute Rate Constant Measurements. Journal of Physical Chemistry A, 2010, 114, 8391-8395.	1.1	54
69	Review: The Effects of Radiation Chemistry on Solvent Extraction 4: Separation of the Trivalent Actinides and Considerations for Radiation-Resistant Solvent Systems. Solvent Extraction and Ion Exchange, 2010, 28, 415-436.	0.8	69
70	Aqueous Nitric Acid Radiation Effects on Solvent Extraction Process Chemistry. ACS Symposium Series, 2010, , 193-203.	0.5	6
71	Bisphenol A reactions with hydroxyl radicals: diverse pathways determined between deionized water and tertiary treated wastewater solutions. Research on Chemical Intermediates, 2009, 35, 21-34.	1.3	57
72	Bimolecular Rate Constant Determination for the Reaction of Hydroxyl Radicals with Domoic and Kainic Acid in Aqueous Solution. Environmental Science & Technology, 2009, 43, 6764-6768.	4.6	13

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73	Advanced oxidation and reduction process chemistry of methyl tert-butyl ether (MTBE) reaction intermediates in aqueous solution: 2-Methoxy-2-methyl-propanal, 2-methoxy-2-methyl-propanol, and 2-methoxy-2-methyl-propanoic acid. Chemosphere, 2009, 77, 1352-1357.	4.2	4
74	Review Article: The Effects of Radiation Chemistry on Solvent Extraction: 2. A Review of Fissionâ€Product Extraction. Solvent Extraction and Ion Exchange, 2009, 27, 331-353.	0.8	61
75	Radiation chemical effects on radiochemistry: A review of examples important to nuclear power. Radiochimica Acta, 2009, 97, .	0.5	46
76	Review Article: The Effects of Radiation Chemistry on Solvent Extraction: 1. Conditions in Acidic Solution and a Review of TBP Radiolysis. Solvent Extraction and Ion Exchange, 2009, 27, 1-25.	0.8	183
77	Review Article: The Effects of Radiation Chemistry on Solvent Extraction 3: A Review of Actinide and Lanthanide Extraction. Solvent Extraction and Ion Exchange, 2009, 27, 579-606.	0.8	109
78	Free Radical Mechanisms for the Treatment of Methyl tert-Butyl Ether (MTBE) via Advanced Oxidation/Reductive Processes in Aqueous Solutions. Chemical Reviews, 2009, 109, 1302-1345.	23.0	90
79	Free Radical Destruction of Î²-Blockers in Aqueous Solution. Environmental Science & Technology, 2008, 42, 1256-1261.	4.6	175
80	Quantitative Correlation of Absolute Hydroxyl Radical Rate Constants with Non-Isolated Effluent Organic Matter Bulk Properties in Water. Environmental Science & Technology, 2008, 42, 5924-5930.	4.6	88
81	A Pulse Radiolysis Investigation of the Reactions of Tributyl Phosphate with the Radical Products of Aqueous Nitric Acid Irradiation. Journal of Physical Chemistry A, 2008, 112, 6275-6280.	1.1	55
82	Free Radical Chemistry of Advanced Oxidation Process Removal of Nitrosamines in Waters. ACS Symposium Series, 2008, , 319-333.	0.5	4
83	Studies in Radiation Chemistry: Application to Ozonation and Other Advanced Oxidation Processes. Ozone: Science and Engineering, 2008, 30, 58-64.	1.4	20
84	Effect of Ozone Oxidation on the Molecular and Kinetic Properties of Effluent Organic Matter. Journal of Advanced Oxidation Technologies, 2008, 11, .	0.5	6
85	Free Radical Chemistry of Disinfection Byproducts. 2. Rate Constants and Degradation Mechanisms of Trichloronitromethane (Chloropicrin). Environmental Science & Technology, 2007, 41, 863-869.	4.6	42
86	Free-Radical-Induced Oxidative and Reductive Degradation of Sulfa Drugs in Water:â€‰ Absolute Kinetics and Efficiencies of Hydroxyl Radical and Hydrated Electron Reactions. Journal of Physical Chemistry A, 2007, 111, 9019-9024.	1.1	143
87	Electron Pulse Radiolysis Determination of Hydroxyl Radical Rate Constants with Suwannee River Fulvic Acid and Other Dissolved Organic Matter Isolates. Environmental Science & Technology, 2007, 41, 4640-4646.	4.6	327
88	Free Radical Chemistry of Disinfection-Byproducts. 1. Kinetics of Hydrated Electron and Hydroxyl Radical Reactions with Halonitromethanes in Water. Journal of Physical Chemistry A, 2006, 110, 2176-2180.	1.1	31
89	Kinetics and Mechanisms of the Reactions of Hydroxyl Radicals and Hydrated Electrons with Nitrosamines and Nitramines in Water. Journal of Physical Chemistry A, 2006, 110, 4732-4737.	1.1	21
90	Rate Constant and Activation Energy Measurement for the Reaction of Atomic Hydrogen with Thiocyanate and Azide in Aqueous Solution. Journal of Physical Chemistry A, 2005, 109, 11823-11827.	1.1	4

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91	The Roles of Hydroxyl Radical, Superoxide Anion Radical, and Hydrogen Peroxide in the Oxidation of Arsenite by Ultrasonic Irradiation. ACS Symposium Series, 2005, , 333-343.	0.5	5
92	Radiation Chemistry of Methyltert-Butyl Ether in Aqueous Solution. Environmental Science & Technology, 2004, 38, 3994-4001.	4.6	21
93	Free Radical Destruction ofN-Nitrosodimethylamine in Water. Environmental Science & Technology, 2004, 38, 3161-3167.	4.6	86
94	Reductive Destruction of Chemical Warfare Agent Simulants in Water. Journal of Physical Chemistry B, 2004, 108, 9568-9570.	1.2	24
95	Free radical reactions of monochloramine and hydroxylamine in aqueous solution. Radiation Physics and Chemistry, 2002, 65, 317-326.	1.4	37
96	Temperature Dependence of Hydrogen Atom Reaction with Nitrate and Nitrite Species in Aqueous Solutionâ€. Journal of Physical Chemistry A, 1997, 101, 6233-6237.	1.1	47
97	Determination of the Rate Constant for the Reaction of Hydroxyl and Oxide Radicals with Cysteine in Aqueous Solution. Radiation Research, 1996, 145, 102.	0.7	14
98	Direct EPR measurement of Arrhenius parameters for the reactions of H? atoms with H2O2 and D? atoms with D2O2 in aqueous solution. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3127.	1.7	34