

James R Bolton

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8510008/publications.pdf>

Version: 2024-02-01

200
papers

14,105
citations

22153

59
h-index

21540

114
g-index

208
all docs

208
docs citations

208
times ranked

9778
citing authors

#	ARTICLE	IF	CITATIONS
1	Standardization of Methods for Fluence (UV Dose) Determination in Bench-Scale UV Experiments. <i>Journal of Environmental Engineering, ASCE</i> , 2003, 129, 209-215.	1.4	962
2	Figures-of-merit for the technical development and application of advanced oxidation technologies for both electric- and solar-driven systems (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2001, 73, 627-637.	1.9	874
3	Photochemistry of nitrite and nitrate in aqueous solution: a review. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1999, 128, 1-13.	3.9	872
4	Limiting and realizable efficiencies of solar photolysis of water. <i>Nature</i> , 1985, 316, 495-500.	27.8	509
5	An Electron Spin Resonance Study of the Spin Adducts of OH and HO ₂ Radicals with Nitrones in the Ultraviolet Photolysis of Aqueous Hydrogen Peroxide Solutions. <i>Canadian Journal of Chemistry</i> , 1974, 52, 3549-3553.	1.1	418
6	Determination of the Quantum Yield for the Photochemical Generation of Hydroxyl Radicals in TiO ₂ Suspensions. <i>The Journal of Physical Chemistry</i> , 1996, 100, 4127-4134.	2.9	397
7	Solar photoproduction of hydrogen: A review. <i>Solar Energy</i> , 1996, 57, 37-50.	6.1	322
8	Photolysis of aqueous free chlorine species (HOCl and OCl ⁻) with 254 nm ultraviolet light. <i>Journal of Environmental Engineering and Science</i> , 2007, 6, 277-284.	0.8	306
9	Ferrioxalate-mediated photodegradation of organic pollutants in contaminated water. <i>Water Research</i> , 1997, 31, 787-798.	11.3	264
10	Mechanism of the Degradation of 1,4-Dioxane in Dilute Aqueous Solution Using the UV/Hydrogen Peroxide Process. <i>Environmental Science & Technology</i> , 1998, 32, 1588-1595.	10.0	231
11	Kinetics and Mechanism of the Degradation and Mineralization of Acetone in Dilute Aqueous Solution Sensitized by the UV Photolysis of Hydrogen Peroxide. <i>Environmental Science & Technology</i> , 1996, 30, 2382-2390.	10.0	228
12	UV/H ₂ O ₂ Treatment of Methyl tert-Butyl Ether in Contaminated Waters. <i>Environmental Science & Technology</i> , 2000, 34, 659-662.	10.0	221
13	Photocatalytic Efficiency Variability in TiO ₂ Particles. <i>The Journal of Physical Chemistry</i> , 1995, 99, 4215-4224.	2.9	220
14	Determination of the quantum yields of the potassium ferrioxalate and potassium iodide-iodate actinometers and a method for the calibration of radiometer detectors. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011, 222, 166-169.	3.9	216
15	Quantum Yield of the Iodide-Iodate Chemical Actinometer: Dependence on Wavelength and Concentration. <i>Photochemistry and Photobiology</i> , 2003, 78, 146.	2.5	210
16	Assessment of the UV/Chlorine process as an advanced oxidation process. <i>Water Research</i> , 2011, 45, 1890-1896.	11.3	208
17	Inactivation of cryptosporidium parvum oocysts using medium- and low-pressure ultraviolet radiation. <i>Water Research</i> , 2001, 35, 1387-1398.	11.3	198
18	Photodegradation of emerging micropollutants using the medium-pressure UV/H ₂ O ₂ Advanced Oxidation Process. <i>Water Research</i> , 2013, 47, 2881-2889.	11.3	185

#	ARTICLE	IF	CITATIONS
19	Fundamental photochemical approach to the concepts of fluence (UV dose) and electrical energy efficiency in photochemical degradation reactions. <i>Research on Chemical Intermediates</i> , 2002, 28, 857-870.	2.7	182
20	Superoxide formation in spinach chloroplasts: Electron spin resonance detection by spin trapping. <i>Biochemical and Biophysical Research Communications</i> , 1975, 64, 803-807.	2.1	181
21	The Photochemical Generation of Hydroxyl Radicals in the UV ^{vis} /Ferrioxalate/H ₂ O ₂ System. <i>Environmental Science & Technology</i> , 1999, 33, 3119-3126.	10.0	172
22	Degradation Pathways during the Treatment of Methyl tert-Butyl Ether by the UV/H ₂ O ₂ Process. <i>Environmental Science & Technology</i> , 2000, 34, 650-658.	10.0	168
23	Medium pressure UV combined with chlorine advanced oxidation for trichloroethylene destruction in a model water. <i>Water Research</i> , 2012, 46, 4677-4686.	11.3	158
24	Electron Spin Resonance Study of the Pairing Theorem for Alternant Hydrocarbons : ¹³ C Splittings in the Anthracene Positive and Negative Ions. <i>Journal of Chemical Physics</i> , 1964, 40, 3307-3320.	3.0	145
25	Microstructural Characterization of a Fumed Titanium Dioxide Photocatalyst. <i>Journal of Solid State Chemistry</i> , 1995, 115, 236-239.	2.9	142
26	Using UV to inactivate <i>Cryptosporidium</i> . <i>Journal - American Water Works Association</i> , 2000, 92, 97-104.	0.3	142
27	Mechanism of photodegradation of aqueous organic pollutants. 2. Measurement of the primary rate constants for reaction of hydroxyl radicals with benzene and some halobenzenes using an EPR spin-trapping method following the photolysis of hydrogen peroxide. <i>Environmental Science & Technology</i> , 1992, 26, 262-265.	10.0	141
28	Medium-pressure UV for oocyst inactivation. <i>Journal - American Water Works Association</i> , 1999, 91, 86-94.	0.3	132
29	Formation of disinfection by-products in the ultraviolet/chlorine advanced oxidation process. <i>Science of the Total Environment</i> , 2015, 518-519, 49-57.	8.0	119
30	AN IDENTIFICATION OF THE RADICAL GIVING RISE TO THE LIGHT-INDUCED ELECTRON SPIN RESONANCE SIGNAL IN PHOTOSYNTHETIC BACTERIA. <i>Photochemistry and Photobiology</i> , 1969, 9, 209-218.	2.5	117
31	THE MAXIMUM EFFICIENCY OF PHOTOSYNTHESIS *. <i>Photochemistry and Photobiology</i> , 1991, 53, 545-548.	2.5	117
32	Optimal methods for quenching H ₂ O ₂ residuals prior to UFC testing. <i>Water Research</i> , 2003, 37, 3697-3703.	11.3	112
33	Ferrioxalate-mediated solar degradation of organic contaminants in water. <i>Solar Energy</i> , 1996, 56, 439-443.	6.1	109
34	Reinvestigation of the Acetone Degradation Mechanism in Dilute Aqueous Solution by the UV/H ₂ O ₂ Process. <i>Environmental Science & Technology</i> , 1999, 33, 870-873.	10.0	108
35	A solar-driven UV/Chlorine advanced oxidation process. <i>Water Research</i> , 2012, 46, 5672-5682.	11.3	108
36	THE INVOLVEMENT OF THE HYDROXYL RADICAL IN THE DESTRUCTIVE PHOTOOXIDATION OF CHLOROPHYLLS <i>IN VIVO</i> AND <i>IN VITRO</i> *. <i>Photochemistry and Photobiology</i> , 1978, 28, 231-234.	2.5	105

#	ARTICLE	IF	CITATIONS
37	Intramolecular photochemical electron transfer. 2. Fluorescence studies of linked porphyrin-quinone compounds. <i>Journal of the American Chemical Society</i> , 1983, 105, 7224-7230.	13.7	104
38	Application of a Solar UV/Chlorine Advanced Oxidation Process to Oil Sands Process-Affected Water Remediation. <i>Environmental Science & Technology</i> , 2014, 48, 9692-9701.	10.0	98
39	Sulfamethazine degradation in water by the VUV/UV process: Kinetics, mechanism and antibacterial activity determination based on a mini-fluidic VUV/UV photoreaction system. <i>Water Research</i> , 2017, 108, 348-355.	11.3	98
40	Mechanism of the photochemistry of p-benzoquinone in aqueous solutions. 1. Spin trapping and flash photolysis electron paramagnetic resonance studies. <i>The Journal of Physical Chemistry</i> , 1986, 90, 6266-6270.	2.9	97
41	Comparison of the action spectra and relative DNA absorbance spectra of microorganisms: Information important for the determination of germicidal fluence (UV _A dose) in an ultraviolet disinfection of water. <i>Water Research</i> , 2009, 43, 5087-5096.	11.3	97
42	Rethinking the Concepts of Fluence ($\langle \text{UV} \rangle \text{Dose}$) and Fluence Rate: The Importance of Photon-based Units – A Systemic Review. <i>Photochemistry and Photobiology</i> , 2015, 91, 1252-1262.	2.5	94
43	Intramolecular photochemical electron transfer. 4. Singlet and triplet mechanisms of electron transfer in a covalently linked porphyrin-amide-quinone molecule. <i>Journal of the American Chemical Society</i> , 1988, 110, 1733-1740.	13.7	90
44	Mechanism of photodegradation of aqueous organic pollutants. 1. EPR spin-trapping technique for the determination of hydroxyl radical rate constants in the photooxidation of chlorophenols following the photolysis of hydrogen peroxide. <i>The Journal of Physical Chemistry</i> , 1991, 95, 5116-5120.	2.9	90
45	Flash photolysis electron spin resonance studies of the electron acceptor species at low temperatures in Photosystem I of spinach subchloroplast particles. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1975, 376, 308-314.	1.0	88
46	Comparison of low- and medium-pressure ultraviolet lamps: Photoreactivation of <i>Escherichia coli</i> and total coliforms in secondary effluents of municipal wastewater treatment plants. <i>Water Research</i> , 2009, 43, 815-821.	11.3	87
47	Comparison of the Disinfection Effects of Vacuum-UV (VUV) and UV Light on <i>Bacillus subtilis</i> Spores in Aqueous Suspensions at 172, 222 and 254 nm. <i>Photochemistry and Photobiology</i> , 2010, 86, 176-181.	2.5	87
48	Inactivation of <i>Giardia muris</i> cysts using medium-pressure ultraviolet radiation in filtered drinking water. <i>Water Research</i> , 2000, 34, 4325-4332.	11.3	86
49	Requirements for ideal performance of photochemical and photovoltaic solar energy converters. <i>The Journal of Physical Chemistry</i> , 1990, 94, 8028-8036.	2.9	84
50	Intramolecular Photochemical Electron Transfer. 1. EPR and Optical Absorption Evidence for Stabilized Charge Separation in Linked Porphyrin-Quinone Molecules. <i>Journal of the American Chemical Society</i> , 1983, 105, 7215-7223.	13.7	79
51	The Iodide/Iodate Actinometer in UV Disinfection: Determination of the Fluence Rate Distribution in UV Reactors. <i>Photochemistry and Photobiology</i> , 2006, 82, 611.	2.5	78
52	VUV/UV/Chlorine as an Enhanced Advanced Oxidation Process for Organic Pollutant Removal from Water: Assessment with a Novel Mini-Fluidic VUV/UV Photoreaction System (MVPS). <i>Environmental Science & Technology</i> , 2016, 50, 5849-5856.	10.0	76
53	UV/chlorine control of drinking water taste and odour at pilot and full-scale. <i>Chemosphere</i> , 2015, 136, 239-244.	8.2	75
54	Basic Electron-Transfer Theory. <i>Advances in Chemistry Series</i> , 1991, , 7-23.	0.6	71

#	ARTICLE	IF	CITATIONS
55	Mechanism of the photochemistry of p-benzoquinone in aqueous solutions. 2. Optical flash photolysis studies. <i>The Journal of Physical Chemistry</i> , 1986, 90, 6270-6274.	2.9	67
56	Anatoxin-a degradation by Advanced Oxidation Processes: Vacuum-UV at 172 nm, photolysis using medium pressure UV and UV/H ₂ O ₂ . <i>Water Research</i> , 2010, 44, 278-286.	11.3	67
57	UV photolysis kinetics of sulfonamides in aqueous solution based on optimized fluence quantification. <i>Water Research</i> , 2015, 75, 43-50.	11.3	67
58	Flash photolysis/HPLC applications. 2. Direct photolysis vs. hydrogen peroxide mediated photodegradation of 4-chlorophenol as studied by a flash photolysis/HPLC technique. <i>Environmental Science & Technology</i> , 1992, 26, 259-262.	10.0	66
59	Flash photolysis-electron spin resonance study of the effect of o-phenanthroline and temperature on the decay time of the ESR signal B1 in reaction-center preparations and chromatophores of mutant and wild strains of <i>Rhodospseudomonas spheroides</i> and <i>Rhodospirillum rubrum</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1974, 347, 126-133.	1.0	62
60	Application of UV Light-Emitting Diodes to Adenovirus in Water. <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	1.4	60
61	Photochemical electron transfer in monolayer assemblies. 2. Photoelectric behavior in chlorophyll a/acceptor systems. <i>Journal of the American Chemical Society</i> , 1979, 101, 6342-6348.	13.7	59
62	Effects of Molecular Organization on Photophysical Behavior. 1. Steady-State Fluorescence and Fluorescence Quantum Yield Studies of Langmuir-Blodgett Monolayers of Some Surfactant Porphyrins. <i>Langmuir</i> , 1998, 14, 6192-6198.	3.5	58
63	Orbital Degeneracy and the Electron Spin Resonance Spectrum of the Benzene-1-d Negative Ion. <i>Journal of the American Chemical Society</i> , 1964, 86, 520-521.	13.7	57
64	Relationship between Electron Spin Resonance Hyperfine Splittings and Electron Spin Densities. A First-Order Excess Charge Effect. <i>Journal of Chemical Physics</i> , 1965, 43, 309-310.	3.0	53
65	Structures, reduction potentials and absorption maxima of synthetic dyes of interest in photochemical solar-energy storage studies. <i>Solar Energy</i> , 1980, 24, 561-574.	6.1	53
66	Flash photolysis/HPLC method for studying the sequence of photochemical reactions: applications to 4-chlorophenol in aerated aqueous solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1991, 58, 315-322.	3.9	53
67	Determination of Electron Spin Densities in Aromatic Free Radicals by Linewidth Studies of Electron Spin Resonance Spectra: The 3,5-Difluoronitrobenzene Anion. <i>Journal of Chemical Physics</i> , 1965, 42, 955-966.	3.0	52
68	Intramolecular photochemical electron transfer. 7. Temperature dependence of electron-transfer rates in covalently linked porphyrin-amide-quinone molecules. <i>The Journal of Physical Chemistry</i> , 1992, 96, 1718-1725.	2.9	50
69	Toxicity changes during the UV treatment of pentachlorophenol in dilute aqueous solution. <i>Water Research</i> , 1998, 32, 489-497.	11.3	50
70	Intramolecular photochemical electron transfer in a linked porphyrin-quinone molecule as a model for the primary step of photosynthesis. <i>Nature</i> , 1980, 286, 254-256.	27.8	49
71	FLASH PHOTOLYSIS-ELECTRON SPIN RESONANCE: A KINETIC STUDY OF ENDOGENOUS LIGHT-INDUCED FREE RADICALS IN REACTION CENTER PREPARATIONS FROM <i>RHODOPSEUDOMONAS SPHEROIDES</i> . <i>Photochemistry and Photobiology</i> , 1973, 18, 417-421.	2.5	45
72	Intramolecular photochemical electron transfer. 3. Solvent dependence of fluorescence quenching and electron transfer rates in a porphyrin-amide-quinone molecule. <i>Journal of the American Chemical Society</i> , 1985, 107, 6112-6114.	13.7	45

#	ARTICLE	IF	CITATIONS
73	Intramolecular photochemical electron transfer. Part 5. Solvent dependence of electron transfer in a porphyrin- <i>amide</i> -quinone molecule. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1989, 85, 1027.	1.0	45
74	Figures-of-Merit for the Technical Development and Application of Advanced Oxidation Processes. <i>Journal of Advanced Oxidation Technologies</i> , 1996, 1, .	0.5	45
75	Simultaneous optical and electron spin resonance detection of the primary photoproduct P700 in green plant photosynthesis. <i>Journal of the American Chemical Society</i> , 1972, 94, 4351-4353.	13.7	44
76	Triplet state involvement in primary photochemistry of photosynthetic photosystem II. <i>Nature</i> , 1976, 263, 443-445.	27.8	42
77	Organic Pollutant Degradation in Water by the Vacuum-Ultraviolet/Ultraviolet/H ₂ O ₂ Process: Inhibition and Enhancement Roles of H ₂ O ₂ . <i>Environmental Science & Technology</i> , 2019, 53, 912-918.	10.0	42
78	Photochemical electron transfer in monolayer assemblies. 1. Spectroscopic study of radicals produced in chlorophyll <i>a</i> /acceptor systems. <i>Journal of the American Chemical Society</i> , 1979, 101, 6337-6341.	13.7	41
79	Reversible photooxidation of chlorophyll. Study of the chlorophyll-benzoquinone system utilizing flash photolysis and electron spin resonance spectroscopy. <i>Journal of the American Chemical Society</i> , 1972, 94, 3314-3320.	13.7	40
80	An Approach to Standardize Methods for Fluence Determination in Bench-Scale Pulsed Light Experiments. <i>Food and Bioprocess Technology</i> , 2016, 9, 1040-1048.	4.7	40
81	Electron spin resonance studies of ion association between alkali metals ions and hydrocarbon radical ions. <i>The Journal of Physical Chemistry</i> , 1970, 74, 1965-1976.	2.9	39
82	An electron spin resonance study of the cation radicals of dimethylhydroquinones. <i>Journal of the American Chemical Society</i> , 1968, 90, 5366-5370.	13.7	37
83	Intramolecular photochemical electron transfer. 6. Bridge and solvent dependence of electron transfer in covalently linked porphyrin-peptide-quinone compounds. <i>The Journal of Physical Chemistry</i> , 1991, 95, 6924-6927.	2.9	36
84	Pilot-scale UV/H ₂ O ₂ advanced oxidation process for municipal reuse water: Assessing micropollutant degradation and estrogenic impacts on goldfish (<i>Carassius auratus</i> L.). <i>Water Research</i> , 2016, 101, 157-166.	11.3	36
85	Flash photolysis electron spin resonance studies of the dynamics of photosystem I: III temperature dependence of the decay of signal I. <i>Biochemical and Biophysical Research Communications</i> , 1974, 59, 872-878.	2.1	35
86	Intramolecular photochemical electron transfer to acceptors in a β -cyclodextrin linked to a porphyrin. <i>Journal of the Chemical Society Chemical Communications</i> , 1984, , 1138-1140.	2.0	35
87	In Situ Measurement of UV Fluence Rate Distribution by Use of a Micro Fluorescent Silica Detector. <i>Environmental Science & Technology</i> , 2011, 45, 3034-3039.	10.0	35
88	Trace Organic Pollutant Removal by VUV/UV/chlorine Process: Feasibility Investigation for Drinking Water Treatment on a Mini-Fluidic VUV/UV Photoreaction System and a Pilot Photoreactor. <i>Environmental Science & Technology</i> , 2018, 52, 7426-7433.	10.0	35
89	Configuration optimization of UV reactors for water disinfection with computational fluid dynamics: Feasibility of using particle minimum UV dose as a performance indicator. <i>Chemical Engineering Journal</i> , 2016, 306, 1-8.	12.7	34
90	Standard reporting of Electrical Energy per Order (<i>EEO</i>) for UV/H ₂ O ₂ reactors (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2018, 90, 1487-1499.	1.9	34

#	ARTICLE	IF	CITATIONS
91	Electron paramagnetic resonance spin trapping detection of short-lived radical intermediates in the direct photolysis of 4-chlorophenol in aerated aqueous solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1991, 62, 229-240.	3.9	33
92	Effects of Molecular Organization on Photophysical Behavior. 2. Photoelectrochemical and Photocurrent Quantum Yield Studies of the Langmuir-Blodgett Monolayers of Some Surfactant Porphyrins. <i>Langmuir</i> , 1998, 14, 6199-6206.	3.5	33
93	A Green Method to Determine VUV (185 nm) Fluence Rate Based on Hydrogen Peroxide Production in Aqueous Solution. <i>Photochemistry and Photobiology</i> , 2018, 94, 821-824.	2.5	32
94	Anomalous Temperature Dependence in the Electron Spin Resonance Spectrum of Bis(trifluoromethyl) Nitroxide. <i>Journal of the American Chemical Society</i> , 1966, 88, 371-373.	13.7	31
95	Light-induced paramagnetism in photosynthetic systems. <i>Accounts of Chemical Research</i> , 1974, 7, 189-195.	15.6	31
96	Synthesis of a model compound for the photosynthetic electron transfer. <i>Tetrahedron Letters</i> , 1985, 26, 5207-5210.	1.4	31
97	Impact of reflection on the fluence rate distribution in a UV reactor with various inner walls as measured using a micro-fluorescent silica detector. <i>Water Research</i> , 2012, 46, 3595-3602.	11.3	31
98	Deuterium Isotope Effects in the Electron Spin Resonance Spectra of Naphthalene Negative Ions. <i>Journal of Chemical Physics</i> , 1967, 47, 2149-2165.	3.0	30
99	Comment on the "Anomalous" ESR Spectrum Spread for Pentacene Anion and Cation Radicals. <i>Journal of Chemical Physics</i> , 1967, 46, 408-409.	3.0	30
100	MONOLAYER STUDIES OF 5-(4-CARBOXYPHENYL)-10,15,20-TRITOLYL-PORPHYRIN. I. OPTICAL STUDIES OF FILMS AT THE AIR-WATER INTERFACE and OF FILMS TRANSFERRED ONTO SOLID SUBSTRATES. <i>Photochemistry and Photobiology</i> , 1984, 39, 735-746.	2.5	30
101	MECHANISM OF THE PHOTOSENSITIZED REDOX REACTIONS OF ACRIDINE ORANGE IN AQUEOUS SOLUTIONS-A SYSTEM OF INTEREST IN THE PHOTOCHEMICAL STORAGE OF SOLAR ENERGY. <i>Photochemistry and Photobiology</i> , 1981, 34, 537-547.	2.5	30
102	Electron spin resonance spectrum of species which may function as the primary electron acceptor in Photosystem I of green plant photosynthesis. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1976, 430, 553-554.	1.0	29
103	Disinfection by-product formation during UV/Chlorine treatment of pesticides in a novel UV-LED reactor at 285 nm and the mitigation impact of GAC treatment. <i>Science of the Total Environment</i> , 2020, 712, 136413.	8.0	29
104	Analysis of the excess charge effect in alternant conjugated hydrocarbon radical-ions. <i>The Journal of Physical Chemistry</i> , 1967, 71, 3702-3704.	2.9	28
105	Simultaneous quantitative comparison of the optical changes at 700 nm (P700) and electron spin resonance signals in system I of green plant photosynthesis. <i>Journal of the American Chemical Society</i> , 1973, 95, 6435-6436.	13.7	28
106	Intramolecular Photochemical Electron Transfer. 8. Decay of the Triplet State in a Porphyrin-Quinone Molecule. <i>The Journal of Physical Chemistry</i> , 1994, 98, 1626-1633.	2.9	28
107	The photochemical conversion and storage of solar energy: An historical perspective. <i>Solar Energy Materials and Solar Cells</i> , 1995, 38, 543-554.	6.2	28
108	Impact of inner-wall reflection on UV reactor performance as evaluated by using computational fluid dynamics: The role of diffuse reflection. <i>Water Research</i> , 2017, 109, 382-388.	11.3	28

#	ARTICLE	IF	CITATIONS
109	Practical Chemical Actinometryâ€”A Review. Photochemistry and Photobiology, 2021, 97, 873-902.	2.5	28
110	PHOTOCHEMICAL ENERGY STORAGE: AN ANALYSIS OF LIMITS. , 1981, , 297-339.		27
111	A Potential New Method for Determination of the Fluence (UV Dose) Delivered in UV Reactors Involving the Photodegradation of Free Chlorine. Water Environment Research, 2010, 82, 328-334.	2.7	27
112	Micropollutant Degradation by the UV/H ₂ O ₂ Process: Kinetic Comparison among Various Radiation Sources. Environmental Science & Technology, 2019, 53, 5241-5248.	10.0	27
113	Photochemistry of 5-methylphenazinium salts in aqueous solution. 2. Optical flash photolysis and fluorescence results and a proposed mechanism. The Journal of Physical Chemistry, 1980, 84, 1909-1916.	2.9	26
114	Fluorescence lifetime of 5-(4-carboxyphenyl)-10,15,20-tritylporphyrin in a mixed Langmuir-Blodgett film with dioleoylphosphatidylcholine. A proposed standard. Langmuir, 1988, 4, 133-136.	3.5	26
115	Fundamental approach to the fluence-based kinetic and electrical energy efficiency parameters in photochemical degradation reactions: polychromatic light. Journal of Environmental Engineering and Science, 2005, 4, S13-S18.	0.8	26
116	Light-induced intramolecular electron transfer from a porphyrin linked to a p-benzoquinone by a rigid spacer group. Journal of the Chemical Society Chemical Communications, 1985, , 559.	2.0	25
117	Observations of chemically induced dynamic electron polarization in photosystem I of green plants and algae. The Journal of Physical Chemistry, 1979, 83, 3309-3313.	2.9	24
118	Solvent dependence of photochemical electron-transfer rates in a covalently linked porphyrinâ€”quinone molecule. Journal of the Chemical Society, Faraday Transactions 2, 1986, 82, 2305-2313.	1.1	24
119	Application of Engineered Si Nanoparticles in Light-Induced Advanced Oxidation Remediation of a Water-Borne Model Contaminant. ACS Nano, 2016, 10, 5405-5412.	14.6	24
120	Photochemistry of 5-methylphenazinium salts in aqueous solution. 1. Products and quantum yield of the reaction. The Journal of Physical Chemistry, 1980, 84, 1903-1908.	2.9	22
121	The importance of geminate pairs in the mechanism of photochemically induced dynamic electron polarization. A case of acetone ketyl radicals. The Journal of Physical Chemistry, 1981, 85, 12-14.	2.9	22
122	Photochemical storage of solar energy. Solar Energy, 1978, 20, 181-183.	6.1	21
123	FLASHâ€”PHOTOLYSIS OF CHLORANIL AS STUDIED BY ELECTRON SPIN RESONANCE SPECTROSCOPY*. Photochemistry and Photobiology, 1970, 12, 239-243.	2.5	20
124	UV/H ₂ O ₂ Degradation and Toxicity Reduction of Textile Azo Dyes: Remazol Black-B, a Case Study. Journal of Advanced Oxidation Technologies, 1997, 2, .	0.5	20
125	FLASH PHOTOLYSISâ€”ELECTRON SPIN RESONANCE STUDIES OF THE DYNAMICS OF PHOTOSYSTEM I IN GREENâ€”PLANT PHOTOSYNTHESISâ€”. EFFECTS OF ACCEPTORS AND DONORS IN SUBCHLOROPLAST PARTICLES* 2.5		19
126	FLASH PHOTOLYSIS-ELECTRON SPIN RESONANCE STUDIES OF THE DYNAMICS OF PHOTOSYSTEM I IN GREEN-PLANT PHOTOSYNTHESISâ€”II. INTACT AND BROKEN SPINACH CHLOROPLASTS. Photochemistry and Photobiology, 1974, 20, 263-269.	2.5	19

#	ARTICLE	IF	CITATIONS
127	MONOLAYER STUDIES OF 5-(4-CARBOXYPHENYL)-10,15,20-TRITOLYL-PORPHYRIN. PHOTOVOLTAIC STUDY OF MULTILAYER SANDWICH CELLS*. Photochemistry and Photobiology, 1984, 40, 319-327.	2.5	19
128	Quantum Yield of the Iodide-Iodate Chemical Actinometer: Dependence on Wavelength and Concentration. Photochemistry and Photobiology, 2007, 78, 146-152.	2.5	18
129	Assignment of Hyperfine Splittings in Electron Spin Resonance Spectra by Linewidth Analyses. Journal of Chemical Physics, 1964, 41, 944-948.	3.0	16
130	THE RELATION OF THE ESR SIGNAL II TO ELECTRON TRANSPORT IN PHOTOSYSTEM II OF SPINACH CHLOROPLASTS. Photochemistry and Photobiology, 1974, 20, 245-250.	2.5	16
131	Development of a tri-parameter online monitoring system for UV disinfection reactors. Chemical Engineering Journal, 2013, 222, 101-107.	12.7	16
132	Nuclear magnetic and electron spin resonance evidence for the strength and site of attachment of N-methylphenazonium cation radical to sodium dodecyl sulfate micelles. Journal of the American Chemical Society, 1977, 99, 4502-4504.	13.7	15
133	Flash photolysis-HPLC method applied to the study of photodegradation reactions. Journal of the Chemical Society Chemical Communications, 1990, , 1596-1597.	2.0	15
134	Calculation of natural radiative lifetimes from the absorption and fluorescence properties of semiconductors and molecules. The Journal of Physical Chemistry, 1991, 95, 8453-8461.	2.9	15
135	Field data analysis of active chlorine-containing stormwater samples. Journal of Environmental Management, 2018, 206, 51-59.	7.8	15
136	A kinetic study of the production of light-induced ESR signals in Rhodospirillum rubrum chromatophores. Archives of Biochemistry and Biophysics, 1968, 126, 383-387.	3.0	14
137	Flash photolysis/high-performance liquid chromatography method for studying the sequence of photochemical reactions: direct photolysis of phenol. Environmental Science & Technology, 1992, 26, 2524-2527.	10.0	14
138	UV disinfection of secondary water supply: Online monitoring with micro-fluorescent silica detectors. Chemical Engineering Journal, 2014, 255, 165-170.	12.7	14
139	Structure of ketyl radicals. Carbon-13 splitting in electron spin resonance spectrum of hexafluoroacetone ketyl. Journal of the American Chemical Society, 1969, 91, 5411-5412.	13.7	13
140	MECHANISM OF THE PHOTSENSITIZED REDOX REACTIONS OF ACRIDINE ORANGE IN AQUEOUS SOLUTIONS-A SYSTEM OF INTEREST IN THE PHOTOCHEMICAL STORAGE OF SOLAR ENERGY. Photochemistry and Photobiology, 1981, 34, 537-547.	2.5	13
141	In situ detailed fluence rate distributions in a UV reactor with multiple low-pressure lamps: Comparison of experimental and model results. Chemical Engineering Journal, 2013, 214, 55-62.	12.7	13
142	Inspection of Feasible Calibration Conditions for ^{40}K Radiometer Detectors with the ^{40}K Actinometer. Photochemistry and Photobiology, 2015, 91, 68-73.	2.5	13
143	Impact of environmental conditions on bacterial photoreactivation in wastewater effluents. Environmental Sciences: Processes and Impacts, 2017, 19, 31-37.	3.5	13
144	Monochloramine loss mechanisms and dissolved organic matter characterization in stormwater. Science of the Total Environment, 2018, 631-632, 745-754.	8.0	13

#	ARTICLE	IF	CITATIONS
145	THE ACCELERATING ACTION OF 5-METHYLPHENAZINIUM METHYL SULFATE ON LIGHT INDUCED ABSORBANCY AND ESR CHANGES IN RHODOSPIRILLUM CHROMATOPHORES*. Photochemistry and Photobiology, 1966, 5, 823-826.	2.5	12
146	Electron Spin Resonance Study of the Pairing Theorem for Alternant Hydrocarbons. II. ¹³ C Hyperfine Splittings in the Positive and Negative Ions of Biphenylene. Journal of Chemical Physics, 1968, 48, 4703-4708.	3.0	12
147	A study of chemically induced dynamic electron polarization (CIDEP) in Photosystem I of whole algal cells at ambient temperatures. Biochimica Et Biophysica Acta - Bioenergetics, 1984, 765, 68-73.	1.0	11
148	Solar detoxification. Solar Energy, 1996, 56, 375.	6.1	11
149	Development of a Protocol for the Determination of the Ultraviolet Sensitivity of Microorganisms Suspended in Air. Aerosol Science and Technology, 2009, 43, 284-289.	3.1	11
150	Monochloramine Loss Mechanisms in Tap Water. Water Environment Research, 2017, 89, 1999-2005.	2.7	11
151	Thermodynamic limits on conversion of solar energy to work or stored energy—Effects of temperature, intensity and atmospheric conditions. Solar Energy, 1984, 32, 75-84.	6.1	10
152	Time resolution enhancement technique applied to a study of the absolute rate of reaction of ketyl radicals with a spin trap using flash photolysis electron paramagnetic resonance. The Journal of Physical Chemistry, 1985, 89, 3343-3347.	2.9	10
153	Solvent, Temperature, and Bridge Dependence of Photoinduced Intramolecular Electron Transfer. Advances in Chemistry Series, 1991, , 117-131.	0.6	10
154	Estimating the fluence delivery in UV disinfection reactors using a “detector-model”™ combination method. Chemical Engineering Journal, 2013, 233, 39-46.	12.7	10
155	CIDEP in the photosystems of green plant photosynthesis. Reviews of Chemical Intermediates, 1979, 3, 121-129.	1.1	9
156	Introduction to Electron Transfer in Inorganic, Organic, and Biological Systems. Advances in Chemistry Series, 1991, , 1-6.	0.6	9
157	Figures-of-Merit for Advanced Oxidation Technologies: A Comparison of Homogeneous UV/H ₂ O ₂ , Heterogeneous UV/TiO ₂ and Electron Beam Processes. Journal of Advanced Oxidation Technologies, 1998, 3, .	0.5	9
158	TERMS AND DEFINITIONS IN ULTRAVIOLET DISINFECTION. Proceedings of the Water Environment Federation, 2000, 2000, 25-40.	0.0	9
159	Development of monitored tunable biosimetry for fluence validation in an ultraviolet disinfection reactor. Separation and Purification Technology, 2013, 117, 12-17.	7.9	9
160	Solar cells—A technology assessment. Solar Energy, 1983, 31, 483-502.	6.1	8
161	ESR and optical evidence for two distinct porphyrin triplet states in linked porphyrin-quinone molecules. The Journal of Physical Chemistry, 1986, 90, 5640-5646.	2.9	8
162	A Mini-Fluidic UV Photoreaction System for Bench-Scale Photochemical Studies. Environmental Science and Technology Letters, 2015, 2, 297-301.	8.7	8

#	ARTICLE	IF	CITATIONS
163	Experimental Assessment of Photon Fluence Rate Distributions in a Medium-Pressure UV Photoreactor. <i>Environmental Science & Technology</i> , 2017, 51, 3453-3460.	10.0	8
164	FLASH PHOTOLYSIS-ELECTRON SPIN RESONANCE STUDIES OF THE INTERACTION OF PHENAZINE METHOSULFATE WITH REACTION-CENTER PREPARATIONS FROM THE R ₂₆ MUTANT OF <i>RHODOPSEUDOMONAS SPHEROIDES</i> . <i>Photochemistry and Photobiology</i> , 1973, 18, 423-428.	2.5	6
165	Combined optical and electron spin resonance kinetic spectrometer. <i>Review of Scientific Instruments</i> , 1976, 47, 201-204.	1.3	6
166	A Master Equation for Photochemical Rates. <i>Photochemistry and Photobiology</i> , 2020, 96, 1355-1357.	2.5	6
167	Solar Energy Conversion in Photosynthesis – Features Relevant to Artificial Systems for the Photochemical Conversion of Solar Energy. , 1979, , 31-50.		6
168	The utilization of time-resolved dielectric loss to probe the role of the surface in heterogeneous photochemistry. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1986, 82, 3625.	1.0	5
169	Ultraviolet actinometry – Determination of the incident photon flux and quantum yields for photochemical systems using low-pressure and ultraviolet light-emitting diode light sources. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107947.	6.7	5
170	Proton hyperfine structure from water ligands in electron spin resonance spectra of aqueous titanium(III) complexes with alcohols. <i>Journal of the American Chemical Society</i> , 1970, 92, 6354-6355.	13.7	4
171	Solar Electricity: Lessons Gained from Photosynthesis. <i>ACS Symposium Series</i> , 1983, , 3-19.	0.5	4
172	Detection of a new photoinduced electron paramagnetic resonance signal in particle dispersions of metal-free .alpha.-, .beta.- and x-phthalocyanine. <i>The Journal of Physical Chemistry</i> , 1983, 87, 862-867.	2.9	4
173	A flash photolysis-electron paramagnetic resonance study of light-generated paramagnetic charge carriers in metal-free .alpha.-, .beta.- and x-phthalocyanines. <i>The Journal of Physical Chemistry</i> , 1983, 87, 868-872.	2.9	4
174	A review of analytic solutions for a model p-n junction cell under low-injection conditions. <i>Solar Energy Materials and Solar Cells</i> , 1996, 40, 133-176.	6.2	4
175	Improved Method for Real-Time Fluence Monitoring in UV Reactors. <i>Journal of Environmental Engineering, ASCE</i> , 2015, 141, .	1.4	4
176	Comparison of Hydrogen Peroxide to Ammonium Ions and Sulfite as a Free Chlorine Quenching Agent for Disinfection By-Product Measurement. <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	1.4	4
177	Line-width effects in the electron spin resonance spectrum of the 2,5-dimethylhydroquinone cation radical. <i>The Journal of Physical Chemistry</i> , 1969, 73, 4387-4389.	2.9	3
178	Improvement of the 100-kHz instrument-limited time response for Varian E-Line EPR spectrometers. <i>Journal of Magnetic Resonance</i> , 1978, 32, 167.	0.5	3
179	Photochemical Aspects of Solar Energy Conversion and Storage. <i>ACS Symposium Series</i> , 1979, , 202-220.	0.5	3
180	Flash photolysis electron paramagnetic resonance studies of charge-carrier production in sublimed films of phthalocyanine. <i>The Journal of Physical Chemistry</i> , 1984, 88, 3139-3142.	2.9	3

#	ARTICLE	IF	CITATIONS
181	Monochloramine dissipation in storm sewer systems: field testing and model development. <i>Water Science and Technology</i> , 2018, 78, 2279-2287.	2.5	3
182	Comment on "Theoretical calculations on ions and radicals. I. A restricted Hartree-Fock perturbation method for the calculation of spin densities". <i>The Journal of Physical Chemistry</i> , 1967, 71, 3099-3100.	2.9	2
183	The synthesis of dibenzo[fg,op]naphthacene from biphenylene and lithium. <i>Challenge</i> , 1969, , 223.	0.4	2
184	A Rapid Scan Apparatus for Flash Photolysis Electron Spin Resonance. <i>Review of Scientific Instruments</i> , 1973, 44, 197-199.	1.3	2
185	CHEMICAL CONVERSION AND STORAGE OF SOLAR ENERGY - AN OVERVIEW. , 1986, , 1843-1859.		2
186	Thermalization of photoexcited molecules in solution. <i>Research on Chemical Intermediates</i> , 1994, 20, 909-926.	2.7	2
187	Quantum Yields for the Photodegradation of Pollutants in Dilute Aqueous Solution: Phenol, 4-Chlorophenol and N-Nitrosodimethylamine. <i>Journal of Advanced Oxidation Technologies</i> , 1996, 1, .	0.5	2
188	Discussion of "Standardized Collimated Beam Testing Protocol for Water/Wastewater Ultraviolet Disinfection" by Jeff Kuo, Ching-lin Chen, and Margaret Nellor. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 827-827.	1.4	2
189	Using a mathematical fluence rate model to estimate the sensor readings in a multi-lamp ultraviolet reactor. <i>Journal of Environmental Engineering and Science</i> , 2005, 4, S27-S31.	0.8	2
190	Sensor factor correction for collimated beam experiments using a medium pressure ultraviolet lamp. <i>Journal of Environmental Engineering and Science</i> , 2008, 7, 677-679.	0.8	2
191	Revealing photon transmission in an ultraviolet reactor: Advanced approaches for measuring fluence rate distribution in water for model validation. <i>Journal of Environmental Sciences</i> , 2021, 110, 169-177.	6.1	2
192	Mechanism of Hyperfine Splittings in Conjugated Systems. , 1986, , 112-130.		1
193	Spectroscopic and Electrochemical Studies of Photochemical Electron Transfer in Linked Donor-Acceptor Molecules. , 1986, , 175-188.		1
194	Time-dependent Phenomena. , 1986, , 192-222.		1
195	The analysis of the EPR spectrum of the 10-hydro-5-methylphenazinium cation radical. <i>Journal of Magnetic Resonance</i> , 1980, 37, 231-239.	0.5	0
196	Generation Efficiency of the Hydroxyl Radical Adduct of the DMPO Spin Trap in Homogeneous and Heterogeneous Media. <i>Journal of Advanced Oxidation Technologies</i> , 1996, 1, .	0.5	0
197	The importance of a photon-based approach to quantum yield determinations. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 357, 81-84.	3.9	0
198	Impacts of biofilm on monochloramine decay in storm sewer systems: Direct reactions or AOB cometabolism. <i>Biochemical Engineering Journal</i> , 2019, 149, 107246.	3.6	0

#	ARTICLE	IF	CITATIONS
199	PHOTOBIOLOGY AND SOLAR ENERGY. , 1981, , 261-271.		0
200	Analysis of Electron Spin Resonance Spectra of Systems in the Liquid Phase. , 1986, , 49-86.		0