

Ruth Edge

List of Publications by Year in descending order

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97
papers

3,919
citations

126907

33
h-index

128289

60
g-index

105
all docs

105
docs citations

105
times ranked

4706
citing authors

#	ARTICLE	IF	CITATIONS
1	The carotenoids as anti-oxidants – a review. Journal of Photochemistry and Photobiology B: Biology, 1997, 41, 189-200.	3.8	780
2	Carotenoids Enhance Vitamin E Antioxidant Efficiency. Journal of the American Chemical Society, 1997, 119, 621-622.	13.7	239
3	Deep-Red Luminescence and Efficient Singlet Oxygen Generation by Cyclometalated Platinum(II) Complexes with 8-Hydroxyquinolines and Quinoline-8-thiol. Inorganic Chemistry, 2006, 45, 9410-9415.	4.0	135
4	β-Carotene with vitamins E and C offers synergistic cell protection against NO _x . FEBS Letters, 1998, 436, 387-389.	2.8	134
5	Relative One-Electron Reduction Potentials of Carotenoid Radical Cations and the Interactions of Carotenoids with the Vitamin E Radical Cation. Journal of the American Chemical Society, 1998, 120, 4087-4090.	13.7	122
6	Singlet Oxygen and Free Radical Reactions of Retinoids and Carotenoids – A Review. Antioxidants, 2018, 7, 5.	5.1	115
7	Short-Lived Quinonoid Species from 5,6-Dihydroxyindole Dimers en Route to Eumelanin Polymers: An Integrated Chemical, Pulse Radiolytic, and Quantum Mechanical Investigation. Journal of the American Chemical Society, 2006, 128, 15490-15498.	13.7	104
8	The Benefits and Risks of Certain Dietary Carotenoids that Exhibit both Anti- and Pro-Oxidative Mechanisms – A Comprehensive Review. Antioxidants, 2020, 9, 264.	5.1	92
9	Interactions of dietary carotenoids with activated (singlet) oxygen and free radicals: Potential effects for human health. Molecular Nutrition and Food Research, 2012, 56, 205-216.	3.3	90
10	Dopaquinone redox exchange with dihydroxyindole and dihydroxyindole carboxylic acid. Pigment Cell & Melanoma Research, 2006, 19, 443-450.	3.6	86
11	Spectral and Photophysical Studies of Substituted Indigo Derivatives in Their Keto Forms. ChemPhysChem, 2006, 7, 2303-2311.	2.1	73
12	One-electron reduction potentials of dietary carotenoid radical cations in aqueous micellar environments. FEBS Letters, 2001, 500, 132-136.	2.8	66
13	Dietary uptake of lycopene protects human cells from singlet oxygen and nitrogen dioxide – ROS components from cigarette smoke. Journal of Photochemistry and Photobiology B: Biology, 2001, 64, 176-178.	3.8	62
14	Spectroelectrochemical and Computational Studies on the Mechanism of Hypoxia Selectivity of Copper Radiopharmaceuticals. Chemistry - A European Journal, 2008, 14, 5890-5907.	3.3	62
15	Photophysics of an Indigo Derivative (Keto and Leuco Structures) with Singular Properties. Journal of Physical Chemistry A, 2006, 110, 13653-13661.	2.5	60
16	Spectroscopic Evidence for Redox Isomerism in the 1,4-Diethynylbenzene-Bridged Heterobimetallic Cation $[\{Fe(dppe)Cp^*\}(\frac{1}{4}C_6H_4)CC_6H_4C\{Mo(dppe)(i-C_7H_7)PF_6\}]PF_6$. Organometallics, 2011, 30, 4180-4195.	2.3	58
17	Prooxidant and antioxidant reaction mechanisms of carotene and radical interactions with vitamins E and C. Nutrition, 1997, 13, 992-994.	2.4	55
18	Formation of a new class of 7i radicals via sterically induced P–P bond cleavage of the dimers $[(CH_2)(NR)2P]_2$. Chemical Communications, 2009, , 1691.	4.1	54

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19	Triplet-State and Singlet Oxygen Formation in Fluorene-Based Alternating Copolymers. <i>Journal of Physical Chemistry B</i> , 2006, 110, 8278-8283.	2.6	52
20	The reduction potential of the β^2 -carotene + β^1 -carotene couple in an aqueous micro-heterogeneous environment. <i>FEBS Letters</i> , 2000, 471, 125-127.	2.8	48
21	Characterisation of carotenoid radical cations in liposomal environments: interaction with vitamin C. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2001, 60, 1-6.	3.8	46
22	Lack of Visible Chromophore Development in the Pulse Radiolysis Oxidation of 5,6-Dihydroxyindole-2-carboxylic Acid Oligomers: DFT Investigation and Implications for Eumelanin Absorption Properties. <i>Journal of Organic Chemistry</i> , 2009, 74, 3727-3734.	3.2	44
23	Magnetic field effect on singlet oxygen production in a biochemical system. <i>Chemical Communications</i> , 2005, , 174.	4.1	43
24	Electron delocalization in vinyl ruthenium substituted cyclophanes: Assessment of the through-space and the through-bond pathways. <i>Journal of Organometallic Chemistry</i> , 2011, 696, 3186-3197.	1.8	43
25	Enhanced protection of human cells against ultraviolet light by antioxidant combinations involving dietary carotenoids. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 1998, 44, 211-215.	3.8	40
26	Pulse radiolysis study of the interaction of retinoids with peroxy radicals. <i>Free Radical Biology and Medicine</i> , 2005, 39, 1399-1405.	2.9	40
27	Primary Photophysical Properties of Moxifloxacin – A Fluoroquinolone Antibiotic. <i>Photochemistry and Photobiology</i> , 2008, 84, 1118-1125.	2.5	40
28	Residual stress measurements in polycrystalline graphite with micro-Raman spectroscopy. <i>Radiation Physics and Chemistry</i> , 2015, 111, 14-23.	2.8	40
29	Antioxidant inhibition of porphyrin-induced cellular phototoxicity. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2001, 65, 177-183.	3.8	37
30	Chemical, Pulse Radiolysis and Density Functional Studies of a New, Labile 5,6-Indolequinone and Its Semiquinone. <i>Journal of Organic Chemistry</i> , 2007, 72, 1595-1603.	3.2	36
31	An in situ electrochemical cell for Q- and W-band EPR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2011, 213, 206-209.	2.1	34
32	The effects of β -radiation on model vitreous wastefoms intended for the disposal of intermediate and high level radioactive wastes in the United Kingdom. <i>Journal of Nuclear Materials</i> , 2012, 429, 353-367.	2.7	34
33	Orbital Symmetry Control of Electronic Coupling in a Symmetrical, All-Carbon-Bridged σ -Mixed Valence Compound: Synthesis, Spectroscopy, and Electronic Structure of $[\{\text{Mo}(\text{dpppe})(\text{i-C}_7\text{H}_7)_2\}]_2(\text{i}^4\text{-C}_4\text{H}_4)]^{2n+}$ ($n = 0, 1, \text{ or } 2$). <i>Organometallics</i> , 2012, 31, 157-169.	2.3	34
34	Site-specific interactions of copper(II) ions with heparin revealed with complementary (SRCD, NMR,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.3	32
35	Spectroscopic Properties and Electronic Structure of the Cycloheptatrienyl Molybdenum Alkynyl Complexes $[\text{Mo}(\text{C}_7\text{H}_7)(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)(\text{i-C}_7\text{H}_7)]_n^{2+}$ ($n = 0 \text{ or } 1$; R = But, Fc, CO ₂ Me, or C ₆ H ₄ -4-X, X = NH ₂ , Tj ETQq1 1 0.7843 14	2.3	32
36	Studies of carotenoid one-electron reduction radicals. <i>Archives of Biochemistry and Biophysics</i> , 2007, 458, 104-110.	3.0	31

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37	Direct Observation of NH ₂ Reactions with Oxygen, Amino Acids, and Melanins. <i>Journal of Physical Chemistry A</i> , 2008, 112, 1234-1237.	2.5	30
38	Synthesis, Radiolabelling and Confocal Fluorescence Microscopy of Styrene-Derivatised Bis(thiosemicarbazonato)zinc and Copper Complexes. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 1985-1993.	2.0	29
39	Metal-stabilised diyne radicals: structure and reactivity of [Mo(Ci, C, CSiMe ₃)L ₂ (i-C ₇ H ₇)] ^{TM+} (L ₂ = Tj ETQq ₁ 1 0.784314 rgBT / Overlock 6322-6335	4.1	29
40	Molybdenum Complexes of C-Bis(ethynyl)carboranes: Design, Synthesis, and Study of a Weakly Coupled Mixed-Valence Compound. <i>Organometallics</i> , 2011, 30, 884-894.	2.3	29
41	Exploiting Non-Innocent Ligands to Prepare Masked Palladium(0) Complexes. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 7040-7044.	13.8	28
42	Mechanistic studies of melanogenesis: the influence of N-substitution on dopamine quinone cyclization. <i>Pigment Cell & Melanoma Research</i> , 2006, 19, 170-178.	3.6	26
43	Effect of ionising radiation on the mechanical and structural properties of 3D printed plastics. <i>Additive Manufacturing</i> , 2020, 31, 100907.	3.0	25
44	A dramatic effect of oxygen on protection of human cells against β radiation by lycopene. <i>FEBS Letters</i> , 2016, 590, 1086-1093.	2.8	23
45	Synthesis, Redox Chemistry, and Electronic Structure of the Butadiynyl and Hexatriynyl Complexes [Mo{(C)C _n CR}(L ₂)(i-C ₇ H ₇)] ^{z+} (n = 1, 2; z = 0, 1; R = SiMe ₃ , H; L ₂ = 2,2'-bipyridine,) Tj ETQq ₁ 1 0.784314 rgBT / Overlock 6322-6335	4.1	24
46	[Rh ₇ (P ₃ Pr ₃) ₆ H ₁₈][BAR _F ₄] ₂ : A Molecular Rh(III) Surface Decorated with 18 Hydrogen Atoms. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 7844-7848.	13.8	21
47	On the Causes of Potential Inversion in 1,2,4,5-Tetrakis(amino)benzenes. <i>Journal of Organic Chemistry</i> , 2010, 75, 1168-1178.	3.2	20
48	The Reactive Oxygen Species Singlet Oxygen, Hydroxy Radicals, and the Superoxide Radical Anion—Examples of Their Roles in Biology and Medicine. <i>Oxygen</i> , 2021, 1, 77-95.	5.0	20
49	Carotenoid Radical Anions and Their Protonated Derivatives. <i>Organic Letters</i> , 2006, 8, 4255-4258.	4.6	19
50	Lichens—Photophysical studies of potential new sunscreens. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2009, 95, 40-45.	3.8	19
51	Gamma irradiation-induced defects in borosilicate glasses for high-level radioactive waste immobilisation. <i>Journal of Nuclear Materials</i> , 2021, 544, 152702.	2.7	19
52	Synthesis, X-ray Crystallography, Spectroelectrochemistry and Computational Studies on Potential Copper-Based Radiopharmaceuticals. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 3549-3560.	2.0	18
53	Prediction of EPR Spectra of Liquid Crystals with Doped Spin Probes from Fully Atomistic Molecular Dynamics Simulations: Exploring Molecular Order and Dynamics at the Phase Transition. <i>Chemistry - A European Journal</i> , 2010, 16, 11558-11562.	3.3	18
54	Redox Non-Innocence of Thioether Crowns: Spectroelectrochemistry and Electronic Structure of Formal Nickel(III) Complexes of Aza-Thioether Macrocycles. <i>Chemistry - A European Journal</i> , 2011, 17, 10246-10258.	3.3	18

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55	EPR based distance measurement in Cu-porphyrinâ€“DNA. <i>New Journal of Chemistry</i> , 2014, 38, 5254-5259.	2.8	18
56	Carotenoid Radicals and the Interaction of Carotenoids with Active Oxygen Species. , 1999, , 223-234.		17
57	Spectroscopic properties and reactivity of free radical forms of A2E. <i>Free Radical Biology and Medicine</i> , 2005, 38, 1037-1046.	2.9	16
58	Cations Modulate Polysaccharide Structure To Determine FGFâˆ“FGFR Signaling: A Comparison of Signaling and Inhibitory Polysaccharide Interactions with FGF-1 in Solution. <i>Biochemistry</i> , 2009, 48, 4772-4779.	2.5	16
59	Redox Non-innocence of Thioether Crowns: Elucidation of the Electronic Structure of the Mononuclear Pd(III) Complexes [Pd([9]aneS₃)₂]³⁺ and [Pd([18]aneS₆)]³⁺. <i>Inorganic Chemistry</i> , 2012, 51, 1450-1461.	4.0	16
60	The sulphate radical is not involved in aqueous radiation oxidation processes. <i>Radiation Physics and Chemistry</i> , 2008, 77, 49-52.	2.8	15
61	Primary Photoprocesses in a Fluoroquinolone Antibiotic Sarafloxacin^{â€“}. <i>Photochemistry and Photobiology</i> , 2009, 85, 886-894.	2.5	15
62	Seeking the mechanism responsible for fluoroquinolone photomutagenicity: a pulse radiolysis, steady-state, and laser flash photolysis study. <i>Free Radical Biology and Medicine</i> , 2014, 67, 417-425.	2.9	15
63	Formation and reactivity of free radicals in 5-hydroxymethyl-2-furaldehyde â€“ the effect on isoprenaline photostability. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2005, 79, 109-119.	3.8	14
64	The Effect of Gamma Irradiation on the Ion Exchange Properties of Caesium-Selective Ammonium Phosphomolybdate-Polyacrylonitrile (AMP-PAN) Composites under Spent Fuel Recycling Conditions. <i>Separations</i> , 2019, 6, 23.	2.4	14
65	Synthesis, spectroscopy and electronic structure of the vinylidene and alkynyl complexes [W(Cî€CHR)(dppe)(î-C₇H₇)]⁺ and [W(Cî€CR)(dppe)(î-C₇H₇)]ⁿ⁺ (n = 0 or 1). <i>Dalton Transactions</i> , 2011, 40, 1267-1278.	3.3	13
66	Magnetic properties of a novel family of ferrous cubanes. <i>Chemical Communications</i> , 2012, 48, 2430.	4.1	13
67	Cu(ii)â€“porphyrin molecular dynamics as seen in a novel EPR/Stochastic Liouville equation study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 10930.	2.8	13
68	A mechanistic study of the Câ€“P bond cleavage reaction of 1,2-(PH2)2-C6H4 with nBuLi/Sb(NMe2)3. <i>Dalton Transactions</i> , 2008, , 6454.	3.3	12
69	The Carbonate Radical: Its Reactivity with Oxygen, Ammonia, Amino Acids, and Melanins. <i>Journal of Physical Chemistry A</i> , 2008, 112, 10147-10151.	2.5	12
70	Properties of Carotenoid Radicals and Excited States and Their Potential Role in Biological Systems. , 2009, , 283-307.		12
71	Carotenoid Radicalâˆ“Melanin Interactions. <i>Journal of Physical Chemistry B</i> , 2000, 104, 7193-7196.	2.6	11
72	Monomeric Azaheterofullerene Derivatives RC59N: Influence of the R Moiety on Spectroscopic and Photophysical Properties. <i>Chemistry - A European Journal</i> , 2006, 12, 4813-4820.	3.3	11

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73	A Dual Sensor Spin Trap for Use with EPR Spectroscopy. <i>Organic Letters</i> , 2007, 9, 3499-3502.	4.6	11
74	Reduction of oxidized guanosine by dietary carotenoids: A pulse radiolysis study. <i>Archives of Biochemistry and Biophysics</i> , 2010, 504, 100-103.	3.0	11
75	Synthesis, Redox Chemistry, and Electronic Structure of the Alkynyl Cyclopentadienyl Molybdenum Complexes $[Mo(C\hat{\%}iCR)(CO)(L_{₂})Cp\hat{\%}e^2]$ ($n = 0$ or 1 ; $R = Ph$ or Tj) <i>ETQq1 1 0.784314 rgE</i>	2.3	11
76	Scavenging of Retinoid Cation Radicals by Urate, Trolox, and $\hat{\%}1\pm$, $\hat{\%}1^2$ -, $\hat{\%}1^3$ -, and $\hat{\%}1'$ -Tocopherols. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2799.	4.1	11
77	Anti- and pro-oxidative mechanisms comparing the macular carotenoids zeaxanthin and lutein with other dietary carotenoids - a singlet oxygen, free-radical in vitro and ex vivo study. <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 1001-1009.	2.9	11
78	Photophysical studies of six amphiphilic 2:1 cyclodextrin:[60]fullerene derivatives. <i>Chemical Physics</i> , 2006, 325, 397-403.	1.9	10
79	Experimental observation of spin delocalisation onto the aryl-alkynyl ligand in the complexes $[Mo(Ci\hat{\%}e,CAr)(Ph_2PCH_2CH_2PPh_2)(\hat{\%}i-C_7H_7)]^+$ ($Ar = C_6H_5$, C_6H_4-4-F ; $C_7H_7 =$ cycloheptatrienyl): an EPR and ENDOR investigation. <i>Dalton Transactions</i> , 2010, 39, 11424.	3.3	10
80	The Effect of Gamma Irradiation on the Physicochemical Properties of Caesium-Selective Ammonium Phosphomolybdate-Polyacrylonitrile (AMP-PAN) Composites. <i>Clean Technologies</i> , 2019, 1, 294-310.	4.2	9
81	Efficiencies of fragmentation of glycosaminoglycan chloramides of the extracellular matrix by oxidizing and reducing radicals: potential site-specific targets in inflammation?. <i>Free Radical Biology and Medicine</i> , 2013, 65, 280-290.	2.9	8
82	Active Intermediates in Copper Nitrite Reductase Reactions Probed by a Cryotrapping-Electron Paramagnetic Resonance Approach. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 13936-13940.	13.8	8
83	Photolysis of carotenoids in chloroform: enhanced yields of carotenoid radical cations in the presence of a tryptophan ester. <i>Radiation Physics and Chemistry</i> , 2005, 72, 341-345.	2.8	5
84	Origin of Impurities Formed in the Polyurethane Production Chain. 1. Conditions for Chlorine Transfer from an Aryl Isocyanide Dichloride Byproduct. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 2515-2523.	3.7	5
85	An Electron Paramagnetic Resonance (EPR) spectroscopy study on the $\hat{\%}1^3$ -irradiation sterilization of the pharmaceutical excipient L-histidine: Regeneration of the radicals in solution. <i>International Journal of Pharmaceutics</i> , 2017, 533, 315-319.	5.2	5
86	Single and double reduction of C60 in 2:1 $\hat{\%}1^3$ -cyclodextrin/[60]fullerene inclusion complexes by cyclodextrin radicals. <i>Chemical Physics</i> , 2008, 354, 174-179.	1.9	4
87	Polymeric seal degradation in nuclear power plants: Effect of gamma radiation on sealing properties. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	4
88	COVID-19 and the ethnicity link - is there a photochemical link?. <i>Photochemical and Photobiological Sciences</i> , 2021, 20, 183-188.	2.9	4
89	A pulse-radiolysis approach to fast reductive cleavage of a disulfide bond to uncage enzyme activity. <i>Free Radical Biology and Medicine</i> , 2008, 45, 1271-1278.	2.9	3
90	Antimony-modified soda-lime-silica glass: Towards low-cost radiation-resistant materials. <i>Journal of Non-Crystalline Solids</i> , 2022, 585, 121526.	3.1	3

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91	Radiolytic and Photolytic Production of Free Radicals and Reactive Oxygen Species: Interactions with Antioxidants and Biomolecules. , 2013, , 305-330.		2
92	Raman Spectroscopy and Microscopy. , 2016, , .		2
93	Resurgence of a Nationâ€™s Radiation Science Driven by Its Nuclear Industry Needs. Applied Sciences (Switzerland), 2021, 11, 11081.	2.5	2
94	Photoreactivity of biologically active compounds. XIX: Excited states and free radicals from the antimalarial drug primaquine. Journal of Photochemistry and Photobiology B: Biology, 2009, 94, 147-157.	3.8	1
95	Photochemistry and photopolymerisation of substituted 2-methylantraquinones and novel 2-acryloxymethylantraquinone in radiation curing. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 356, 530-544.	3.9	1
96	In situ monitoring of PVDF ultrasound transducers under gamma irradiation. Nondestructive Testing and Evaluation, 2020, 35, 207-221.	2.1	1
97	Î²-Carotene: Radical Reactions and Cancer Associations-Leading Down a Rabbit Hole?. Journal of Integrative Oncology, 2018, 07, .	0.3	1