

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	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
2	COVID-19 and the ethnicity link “ is there a photochemical link?. <i>Photochemical and Photobiological Sciences</i> , 2021, 20, 183-188.	2.9	4
3	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
4	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
5	Resurgence of a Nation’s Radiation Science Driven by Its Nuclear Industry Needs. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 11081.	2.5	2
6	In situ monitoring of PVDF ultrasound transducers under gamma irradiation. <i>Nondestructive Testing and Evaluation</i> , 2020, 35, 207-221.	2.1	1
7	Effect of ionising radiation on the mechanical and structural properties of 3D printed plastics. <i>Additive Manufacturing</i> , 2020, 31, 100907.	3.0	25
8	The Benefits and Risks of Certain Dietary Carotenoids that Exhibit both Anti- and Pro-Oxidative Mechanisms—A Comprehensive Review. <i>Antioxidants</i> , 2020, 9, 264.	5.1	92
9	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
10	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
11	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
12	Scavenging of Retinoid Cation Radicals by Urate, Trolox, and $\hat{1}\pm$, $\hat{1}^2$, $\hat{1}^3$, and $\hat{1}^4$ -Tocopherols. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2799.	4.1	11
13	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
14	Photochemistry and photopolymerisation of substituted 2-methylantraquinones and novel 2-acryloxymethylantraquinone in radiation curing. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 356, 530-544.	3.9	1
15	Singlet Oxygen and Free Radical Reactions of Retinoids and Carotenoids—A Review. <i>Antioxidants</i> , 2018, 7, 5.	5.1	115
16	$\hat{1}^2$ -Carotene: Radical Reactions and Cancer Associations—Leading Down a Rabbit Hole?. <i>Journal of Integrative Oncology</i> , 2018, 07, .	0.3	1
17	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
18	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

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19	Raman Spectroscopy and Microscopy. , 2016, , .		2
20	A dramatic effect of oxygen on protection of human cells against β -radiation by lycopene. FEBS Letters, 2016, 590, 1086-1093.	2.8	23
21	Residual stress measurements in polycrystalline graphite with micro-Raman spectroscopy. Radiation Physics and Chemistry, 2015, 111, 14-23.	2.8	40
22	EPR based distance measurement in Cu-porphyrin-DNA. New Journal of Chemistry, 2014, 38, 5254-5259.	2.8	18
23	Seeking the mechanism responsible for fluoroquinolone photomutagenicity: a pulse radiolysis, steady-state, and laser flash photolysis study. Free Radical Biology and Medicine, 2014, 67, 417-425.	2.9	15
24	Efficiencies of fragmentation of glycosaminoglycan chloramides of the extracellular matrix by oxidizing and reducing radicals: potential site-specific targets in inflammation?. Free Radical Biology and Medicine, 2013, 65, 280-290.	2.9	8
25	Cu(ii)-porphyrin molecular dynamics as seen in a novel EPR/Stochastic Liouville equation study. Physical Chemistry Chemical Physics, 2013, 15, 10930.	2.8	13
26	Radiolytic and Photolytic Production of Free Radicals and Reactive Oxygen Species: Interactions with Antioxidants and Biomolecules. , 2013, , 305-330.		2
27	Magnetic properties of a novel family of ferrous cubanes. Chemical Communications, 2012, 48, 2430.	4.1	13
28	Origin of Impurities Formed in the Polyurethane Production Chain. 1. Conditions for Chlorine Transfer from an Aryl Isocyanide Dichloride Byproduct. Industrial & Engineering Chemistry Research, 2012, 51, 2515-2523.	3.7	5
29	Redox Non-innocence of Thioether Crowns: Elucidation of the Electronic Structure of the Mononuclear Pd(III) Complexes [Pd([9]aneS ₃) ₂] ³⁺ and [Pd([18]aneS ₆)] ³⁺ . Inorganic Chemistry, 2012, 51, 1450-1461.	4.0	16
30	Synthesis, Redox Chemistry, and Electronic Structure of the Butadiynyl and Hexatriynyl Complexes [Mo{(C ₆ H ₅) ₃ CR}(L) ₂](η^7 -C ₇ H ₇) ⁿ⁺ ($n = 1, 2$; $z = 0, 1$; R = SiMe ₃ , H; L = 2,2'-bipyridine,) Tj ETQq0 0 0 rgBT4 Overlock 210 Tf 50 2 6322-6335.		20
31	The effects of β -radiation on model vitreous wasteforms intended for the disposal of intermediate and high level radioactive wastes in the United Kingdom. Journal of Nuclear Materials, 2012, 429, 353-367.	2.7	34
32	Orbital Symmetry Control of Electronic Coupling in a Symmetrical, All-Carbon-Bridged σ -Mixed Valence Compound: Synthesis, Spectroscopy, and Electronic Structure of [Mo(dppe)(η^7 -C ₇ H ₇) ₂](η^4 -C ₄) ⁿ⁺ ($n = 0, 1, \text{ or } 2$). Organometallics, 2012, 31, 157-169.	2.3	34
33	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
34	Electron delocalization in vinyl ruthenium substituted cyclophanes: Assessment of the through-space and the through-bond pathways. Journal of Organometallic Chemistry, 2011, 696, 3186-3197.	1.8	43
35	Molybdenum Complexes of σ -C ₂ -Bis(ethynyl)carboranes: Design, Synthesis, and Study of a Weakly Coupled Mixed-Valence Compound. Organometallics, 2011, 30, 884-894.	2.3	29
36	An in situ electrochemical cell for Q- and W-band EPR spectroscopy. Journal of Magnetic Resonance, 2011, 213, 206-209.	2.1	34

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37	Synthesis, Redox Chemistry, and Electronic Structure of the Alkynyl Cyclopentadienyl Molybdenum Complexes $[Mo(C\hat{a}\%_jCR)(CO)(L_{sub>2</sub>})Cp\hat{e}^2]$ ($n = 0$ or 1 ; $R = Ph$ or Tj) <i>ETQq1</i> 1 0.784314 <i>rgBT</i> / <i>O</i>	2.3	11
38	Spectroscopic Evidence for Redox Isomerism in the 1,4-Diethynylbenzene-Bridged Heterobimetallic Cation $[{Fe(dppe)Cp^*}(1/4-C\hat{a}\%_jCC_{sub>6</sub>H_{sub>4</sub>}C)\{Mo(dppe)(\hat{i}-C_{sub>7</sub>H_{sub>7</sub>})\}]PF_6$ <i>Organometallics</i> , 2011, 30, 4180-4195.	2.3	58
39	Synthesis, spectroscopy and electronic structure of the vinylidene and alkynyl complexes $[W(C\hat{i}CHR)(dppe)(\hat{i}-C_{sub>7</sub>H_{sub>7</sub>})]$ and $[W(C\hat{i}CR)(dppe)(\hat{i}-C_{sub>7</sub>H_{sub>7</sub>})]$ ($n = 0$ or 1). <i>Dalton Transactions</i> , 2011, 40, 1267-1278.	3.3	13
40	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
41	Metal-stabilised diyne radicals: structure and reactivity of $[Mo(C\hat{i}C\hat{a}\%_jC\hat{i}CSiMe_3)L_2(\hat{i}-C_7H_7)]^{\hat{e}TM+}$ ($L_2 =$) <i>ETQq1</i> 1 0.784314 <i>rgBT</i> / <i>O</i>	4.1	29
42	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
43	Exploiting Non-Innocent Ligands to Prepare Masked Palladium(0) Complexes. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 7040-7044.	13.8	28
44	Spectroscopic Properties and Electronic Structure of the Cycloheptatrienyl Molybdenum Alkynyl Complexes $[Mo(C\hat{a}\%_jCR)(Ph_2PCH_2CH_2PPh_2)(\hat{i}-C_7H_7)]_{n+}$ ($n = 0$ or 1 ; $R = But, Fc, CO_2Me, or C_6H_4-4-X, X = NH_2,$) <i>ETQq0</i> 0 0 <i>rgBT</i> / <i>O</i>	3.3	10
45	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
46	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
47	Experimental observation of spin delocalisation onto the aryl-alkynyl ligand in the complexes $[Mo(C\hat{i}C,Ar)(Ph_2PCH_2CH_2PPh_2)(\hat{i}-C_7H_7)]^+$ ($Ar = C_6H_5, C_6H_4-4-F; C_7H_7 =$ cycloheptatrienyl): an EPR and ENDOR investigation. <i>Dalton Transactions</i> , 2010, 39, 11424.	3.3	10
48	Primary Photoprocesses in a Fluoroquinolone Antibiotic Sarafloxacin. <i>Photochemistry and Photobiology</i> , 2009, 85, 886-894.	2.5	15
49	Photoreactivity of biologically active compounds. XIX: Excited states and free radicals from the antimalarial drug primaquine. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2009, 94, 147-157.	3.8	1
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	Cations Modulate Polysaccharide Structure To Determine FGF \hat{a} ~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
52	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
53	Formation of a new class of $\hat{i}C$ radicals via sterically induced \hat{P} bond cleavage of the dimers $[(CH)_2(NR)_2P]_2$. <i>Chemical Communications</i> , 2009, , 1691.	4.1	54
54	Properties of Carotenoid Radicals and Excited States and Their Potential Role in Biological Systems. , 2009, , 283-307.		12

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55	Site-specific interactions of copper(II) ions with heparin revealed with complementary (SRCD, NMR,) Tj ETQq1 1 0.784314 rgBT /Overl	2.3	32
56	Single and double reduction of C60 in 2:1 β -cyclodextrin/[60]fullerene inclusion complexes by cyclodextrin radicals. <i>Chemical Physics</i> , 2008, 354, 174-179.	1.9	4
57	The sulphate radical is not involved in aqueous radiation oxidation processes. <i>Radiation Physics and Chemistry</i> , 2008, 77, 49-52.	2.8	15
58	Spectroelectrochemical and Computational Studies on the Mechanism of Hypoxia Selectivity of Copper Radiopharmaceuticals. <i>Chemistry - A European Journal</i> , 2008, 14, 5890-5907.	3.3	62
59	Synthesis, Radiolabelling and Confocal Fluorescence Microscopy of Styrene- ϵ -Derivatised Bis(thiosemicarbazonato)zinc and ϵ -copper Complexes. <i>European Journal of Inorganic Chemistry</i> , 2008, 2008, 1985-1993.	2.0	29
60	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
61	Primary Photophysical Properties of Moxifloxacin- ϵ A Fluoroquinolone Antibiotic. <i>Photochemistry and Photobiology</i> , 2008, 84, 1118-1125.	2.5	40
62	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
63	A mechanistic study of the C-P bond cleavage reaction of 1,2-(PH ₂) ₂ -C ₆ H ₄ with nBuLi/Sb(NMe ₂) ₃ . <i>Dalton Transactions</i> , 2008, , 6454.	3.3	12
64	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
65	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
66	Studies of carotenoid one-electron reduction radicals. <i>Archives of Biochemistry and Biophysics</i> , 2007, 458, 104-110.	3.0	31
67	A Dual Sensor Spin Trap for Use with EPR Spectroscopy. <i>Organic Letters</i> , 2007, 9, 3499-3502.	4.6	11
68	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
69	[Rh ₇ (P ₃) ₆ H ₁₈][BF 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
70	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
71	Carotenoid Radical Anions and Their Protonated Derivatives. <i>Organic Letters</i> , 2006, 8, 4255-4258.	4.6	19
72	Photophysics of an Indigo Derivative (Keto and Leuco Structures) with Singular Properties. <i>Journal of Physical Chemistry A</i> , 2006, 110, 13653-13661.	2.5	60

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73	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
74	Dopaquinone redox exchange with dihydroxyindole and dihydroxyindole carboxylic acid. <i>Pigment Cell & Melanoma Research</i> , 2006, 19, 443-450.	3.6	86
75	Photophysical studies of six amphiphilic 2:1 cyclodextrin:[60]fullerene derivatives. <i>Chemical Physics</i> , 2006, 325, 397-403.	1.9	10
76	Short-Lived Quinonoid Species from 5,6-Dihydroxyindole Dimers en Route to Eumelanin Polymers:Â Integrated Chemical, Pulse Radiolytic, and Quantum Mechanical Investigation. <i>Journal of the American Chemical Society</i> , 2006, 128, 15490-15498.	13.7	104
77	Deep-Red Luminescence and Efficient Singlet Oxygen Generation by Cyclometalated Platinum(II) Complexes with 8-Hydroxyquinolines and Quinoline-8-thiol. <i>Inorganic Chemistry</i> , 2006, 45, 9410-9415.	4.0	135
78	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
79	Spectral and Photophysical Studies of Substituted Indigo Derivatives in Their Keto Forms. <i>ChemPhysChem</i> , 2006, 7, 2303-2311.	2.1	73
80	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
81	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
82	Spectroscopic properties and reactivity of free radical forms of A2E. <i>Free Radical Biology and Medicine</i> , 2005, 38, 1037-1046.	2.9	16
83	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
84	Magnetic field effect on singlet oxygen production in a biochemical system. <i>Chemical Communications</i> , 2005, , 174.	4.1	43
85	Oneâ€electron reduction potentials of dietary carotenoid radical cations in aqueous micellar environments. <i>FEBS Letters</i> , 2001, 500, 132-136.	2.8	66
86	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
87	Dietary uptake of lycopene protects human cells from singlet oxygen and nitrogen dioxide â€“ ROS components from cigarette smoke. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2001, 64, 176-178.	3.8	62
88	Antioxidant inhibition of porphyrin-induced cellular phototoxicity. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2001, 65, 177-183.	3.8	37
89	The reduction potential of the Î²-carotene + Î²-carotene couple in an aqueous micro-heterogeneous environment. <i>FEBS Letters</i> , 2000, 471, 125-127.	2.8	48
90	Carotenoid RadicalâˆMelanin Interactions. <i>Journal of Physical Chemistry B</i> , 2000, 104, 7193-7196.	2.6	11

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91	Carotenoid Radicals and the Interaction of Carotenoids with Active Oxygen Species. , 1999, , 223-234.		17
92	Enhanced protection of human cells against ultraviolet light by antioxidant combinations involving dietary carotenoids. Journal of Photochemistry and Photobiology B: Biology, 1998, 44, 211-215.	3.8	40
93	β-Carotene with vitamins E and C offers synergistic cell protection against NO _x . FEBS Letters, 1998, 436, 387-389.	2.8	134
94	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
95	Carotenoids Enhance Vitamin E Antioxidant Efficiency. Journal of the American Chemical Society, 1997, 119, 621-622.	13.7	239
96	Prooxidant and antioxidant reaction mechanisms of carotene and radical interactions with vitamins E and C. Nutrition, 1997, 13, 992-994.	2.4	55
97	The carotenoids as anti-oxidants – a review. Journal of Photochemistry and Photobiology B: Biology, 1997, 41, 189-200.	3.8	780