Claus Jacob

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

125
papers3,356
citations28
h-index54
g-index141
ext. papers3,883
ext. citations4.4
avg, IF5.53
L-index

#	Paper	IF	Citations
125	Sulfur and selenium: the role of oxidation state in protein structure and function. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 4742-58	16.4	606
124	A scent of therapy: pharmacological implications of natural products containing redox-active sulfur atoms. <i>Natural Product Reports</i> , 2006 , 23, 851-63	15.1	253
123	1,4-naphthoquinones: from oxidative damage to cellular and inter-cellular signaling. <i>Molecules</i> , 2014 , 19, 14902-18	4.8	136
122	Synthesis and selective anticancer activity of organochalcogen based redox catalysts. <i>Journal of Medicinal Chemistry</i> , 2010 , 53, 6954-63	8.3	107
121	Natural Nanoparticles: A Particular Matter Inspired by Nature. <i>Antioxidants</i> , 2017 , 7,	7.1	96
120	Aspects of the biological redox chemistry of cysteine: from simple redox responses to sophisticated signalling pathways. <i>Biological Chemistry</i> , 2006 , 387, 1385-97	4.5	89
119	Control of oxidative posttranslational cysteine modifications: from intricate chemistry to widespread biological and medical applications. <i>Chemical Research in Toxicology</i> , 2012 , 25, 588-604	4	82
118	Ebselen, a selenium-containing redox drug, releases zinc from metallothionein. <i>Biochemical and Biophysical Research Communications</i> , 1998 , 248, 569-73	3.4	77
117	A Comparison of the Antibacterial and Antifungal Activities of Thiosulfinate Analogues of Allicin. <i>Scientific Reports</i> , 2018 , 8, 6763	4.9	75
116	Schwefel und Selen: Bedeutung der Oxidationsstufe fliStruktur und Funktion von Proteinen. <i>Angewandte Chemie</i> , 2003 , 115, 4890-4907	3.6	70
115	Synthesis and antiproliferative activity of novel selenoester derivatives. <i>European Journal of Medicinal Chemistry</i> , 2014 , 73, 153-66	6.8	63
114	Perspective on recent developments on sulfur-containing agents and hydrogen sulfide signaling. <i>Planta Medica</i> , 2008 , 74, 1580-92	3.1	62
113	Selective antimicrobial activity associated with sulfur nanoparticles. <i>Journal of Biomedical Nanotechnology</i> , 2011 , 7, 395-405	4	61
112	Allicin disrupts the cell's electrochemical potential and induces apoptosis in yeast. <i>Free Radical Biology and Medicine</i> , 2010 , 49, 1916-24	7.8	61
111	The chemistry behind redox regulation with a focus on sulphur redox systems. <i>Physiologia Plantarum</i> , 2008 , 133, 469-80	4.6	55
110	Multicomponent reactions for the synthesis of multifunctional agents with activity against cancer cells. <i>Chemical Communications</i> , 2009 , 4702-4	5.8	53
109	Dimethyl fumarate, a two-edged drug: Current status and future directions. <i>Medicinal Research Reviews</i> , 2019 , 39, 1923-1952	14.4	53

108	Redox active secondary metabolites. Current Opinion in Chemical Biology, 2011, 15, 149-55	9.7	51
107	The Reactive Sulfur Species Concept: 15 Years On. <i>Antioxidants</i> , 2017 , 6,	7.1	48
106	Sulfur, selenium and tellurium pseudopeptides: synthesis and biological evaluation. <i>Bioorganic and Medicinal Chemistry</i> , 2014 , 22, 3610-9	3.4	47
105	Novel peptidomimetic compounds containing redox active chalcogens and quinones as potential anticancer agents. <i>European Journal of Medicinal Chemistry</i> , 2012 , 58, 192-205	6.8	46
104	Redox signalling via the cellular thiolstat. <i>Biochemical Society Transactions</i> , 2011 , 39, 1247-53	5.1	46
103	Identification of selenocompounds with promising properties to reverse cancer multidrug resistance. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016 , 26, 2821-2824	2.9	43
102	Natural selenium particles from Staphylococcus carnosus: Hazards or particles with particular promise?. <i>Journal of Hazardous Materials</i> , 2017 , 324, 22-30	12.8	40
101	Use of a substrate/alliinase combination to generate antifungal activity in situ. <i>Journal of Agricultural and Food Chemistry</i> , 2005 , 53, 574-80	5.7	38
100	Electrochemistry of chalcogen compounds: prediction of antioxidant activity. <i>Chemical Communications</i> , 2001 , 2490-1	5.8	33
99	Ruthenium-catalyzed C-H oxygenation of quinones by weak O-coordination for potent trypanocidal agents. <i>Chemical Communications</i> , 2018 , 54, 12840-12843	5.8	30
98	Synthesis of Selenium-Quinone Hybrid Compounds with Potential Antitumor Activity via Rh-Catalyzed C-H Bond Activation and Click Reactions. <i>Molecules</i> , 2017 , 23,	4.8	29
97	Synthesis of quinones with highlighted biological applications: A critical update on the strategies towards bioactive compounds with emphasis on lapachones. <i>European Journal of Medicinal Chemistry</i> , 2019 , 179, 863-915	6.8	27
96	No time to waste organic waste: Nanosizing converts remains of food processing into refined materials. <i>Journal of Environmental Management</i> , 2018 , 210, 114-121	7.9	27
95	Intracellular diagnostics: hunting for the mode of action of redox-modulating selenium compounds in selected model systems. <i>Molecules</i> , 2014 , 19, 12258-79	4.8	27
94	Synthesis of amphiphilic, chalcogen-based redox modulators with in vitro cytotoxic activity against cancer cells, macrophages and microbes. <i>MedChemComm</i> , 2014 , 5, 25-31	5	25
93	Cytoprotective and antioxidant properties of organic selenides for the myelin-forming cells, oligodendrocytes. <i>Bioorganic Chemistry</i> , 2018 , 80, 43-56	5.1	25
92	One-Pot Synthesis of Benzopyran-4-ones with Cancer Preventive and Therapeutic Potential. <i>European Journal of Organic Chemistry</i> , 2016 , 2016, 965-975	3.2	24
91	Interactions of polysulfanes with components of red blood cells. <i>MedChemComm</i> , 2011 , 2, 196	5	24

90	Inorganic Polysulfides and Related Reactive SulfurBelenium Species from the Perspective of Chemistry. <i>Molecules</i> , 2019 , 24,	4.8	22
89	Aspects of a Distinct Cytotoxicity of Selenium Salts and Organic Selenides in Living Cells with Possible Implications for Drug Design. <i>Molecules</i> , 2015 , 20, 13894-912	4.8	22
88	Turning Waste into Value: Nanosized Natural Plant Materials of Solanum incanum L. and Pterocarpus erinaceus Poir with Promising Antimicrobial Activities. <i>Pharmaceutics</i> , 2016 , 8,	6.4	22
87	Synthetic polysulfane derivatives induce cell cycle arrest and apoptotic cell death in human hematopoietic cancer cells. <i>Food and Chemical Toxicology</i> , 2014 , 64, 249-57	4.7	21
86	Naturally occurring reactive sulfur species, their activity against Caco-2 cells, and possible modes of biochemical action. <i>Journal of Sulfur Chemistry</i> , 2008 , 29, 251-268	2.3	21
85	An Optimized Facile Procedure to Synthesize and Purify Allicin. <i>Molecules</i> , 2017 , 22,	4.8	20
84	Selenazolinium Salts as "Small Molecule Catalysts" with High Potency against ESKAPE Bacterial Pathogens. <i>Molecules</i> , 2017 , 22,	4.8	19
83	Antibacterial activity and cytotoxicity of Pterocarpus erinaceus Poir extracts, fractions and isolated compounds. <i>Journal of Ethnopharmacology</i> , 2018 , 212, 200-207	5	19
82	Biological Activity of Hydrophilic Extract of Grown on Post-Fermentation Leachate from a Biogas Plant Supplied with Stillage and Maize Silage. <i>Molecules</i> , 2020 , 25,	4.8	18
81	Bis(4-hydroxy-2H-chromen-2-one): synthesis and effects on leukemic cell lines proliferation and NF-B regulation. <i>Bioorganic and Medicinal Chemistry</i> , 2014 , 22, 3008-15	3.4	17
8o	Resuspendable Powders of Lyophilized Chalcogen Particles with Activity against Microorganisms. <i>Antioxidants</i> , 2018 , 7,	7.1	16
79	Synthesis of amphiphilic seleninic acid derivatives with considerable activity against cellular membranes and certain pathogenic microbes. <i>Journal of Hazardous Materials</i> , 2014 , 269, 74-82	12.8	16
78	Tetrasulfanes as Selective Modulators of the Cellular Thiolstat. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2013 , 188, 446-453	1	16
77	Synthesis of chromenoindole derivatives from Robinia pseudoacacia. <i>MedChemComm</i> , 2013 , 4, 1580	5	16
76	Ruthenium(II)-Catalyzed CH Alkenylation of Quinones: Diversity-Oriented Strategy for Trypanocidal Compounds. <i>European Journal of Organic Chemistry</i> , 2019 , 2019, 2344-2353	3.2	16
75	Inspired by Nature: The Use of Plant-derived Substrate/Enzyme Combinations to Generate Antimicrobial Activity in situ. <i>Natural Product Communications</i> , 2015 , 10, 1733-8	0.9	16
74	Tubulin-binding anticancer polysulfides induce cell death via mitotic arrest and autophagic interference in colorectal cancer. <i>Cancer Letters</i> , 2017 , 410, 139-157	9.9	15
73	A new tellurium-containing amphiphilic molecule induces apoptosis in HCT116 colon cancer cells. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014 , 1840, 1808-16	4	15

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72	Deciphering intracellular targets of organochalcogen based redox catalysts. <i>MedChemComm</i> , 2012 , 3, 784	5	15
71	Synthesis of Quinone-Based N-Sulfonyl-1,2,3-triazoles: Chemical Reactivity of Rh(II) Azavinyl Carbenes and Antitumor Activity. <i>ChemistrySelect</i> , 2017 , 2, 4301-4308	1.8	14
70	Pronounced activity of aromatic selenocyanates against multidrug resistant ESKAPE bacteria. <i>New Journal of Chemistry</i> , 2019 , 43, 6021-6031	3.6	14
69	Computer-Aided Studies for Novel Arylhydantoin 1,3,5-Triazine Derivatives as 5-HTISerotonin Receptor Ligands with Antidepressive-Like, Anxiolytic and Antiobesity Action In Vivo. <i>Molecules</i> , 2018 , 23,	4.8	14
68	Novel coumarin- and quinolinone-based polycycles as cell division cycle 25-A and -C phosphatases inhibitors induce proliferation arrest and apoptosis in cancer cells. <i>European Journal of Medicinal Chemistry</i> , 2017 , 134, 316-333	6.8	13
67	Discovery of phenylselenoether-hydantoin hybrids as ABCB1 efflux pump modulating agents with cytotoxic and antiproliferative actions in resistant T-lymphoma. <i>European Journal of Medicinal Chemistry</i> , 2020 , 200, 112435	6.8	13
66	Nanosizing Cynomorium: Thumbs up for Potential Antifungal Applications. <i>Inventions</i> , 2017 , 2, 24	2.9	13
65	Open season for hunting and trapping post-translational cysteine modifications in proteins and enzymes. <i>ChemBioChem</i> , 2011 , 12, 841-4	3.8	13
64	A scent of therapy: Synthetic polysulfanes with improved physico-chemical properties induce apoptosis in human cancer cells. <i>International Journal of Oncology</i> , 2015 , 47, 991-1000	4.4	12
63	Electrochemical Selenation/Cyclization of Quinones: A Rapid, Green and Efficient Access to Functionalized Trypanocidal and Antitumor Compounds. <i>European Journal of Organic Chemistry</i> , 2020 , 2020, 4474-4486	3.2	11
62	Release of reactive selenium species from phthalic selenoanhydride in the presence of hydrogen sulfide and glutathione with implications for cancer research. <i>New Journal of Chemistry</i> , 2019 , 43, 117	71 ³ 1978	33 ¹¹
61	The natural organosulfur compound dipropyltetrasulfide prevents HOCl-induced systemic sclerosis in the mouse. <i>Arthritis Research and Therapy</i> , 2013 , 15, R167	5.7	11
60	Selenium Donors at the Junction of Inflammatory Diseases. <i>Current Pharmaceutical Design</i> , 2019 , 25, 1707-1716	3.3	10
59	Ruthenium(II)-Catalyzed Double Annulation of Quinones: Step-Economical Access to Valuable Bioactive Compounds. <i>Chemistry - A European Journal</i> , 2020 , 26, 10981-10986	4.8	9
58	Inorganic Reactive Sulfur-Nitrogen Species: Intricate Release Mechanisms or Cacophony in Yellow, Blue and Red?. <i>Antioxidants</i> , 2017 , 6,	7.1	9
57	Milling the Mistletoe: Nanotechnological Conversion of African Mistletoe () Intoantimicrobial Materials. <i>Antioxidants</i> , 2018 , 7,	7.1	9
56	Reactivity of 4-Vinyl-2H-1-benzopyran-2-ones in DielsAlder Cycloaddition Reactions: Access to Coumarin-Based Polycycles with Cdc25 Phosphatase-Inhibiting Activity. <i>European Journal of Organic Chemistry</i> , 2013 , 2013, 2869-2877	3.2	9
55	The Design of Multifunctional Antioxidants Against the Damaging Ingredients of Oxidative Stress. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2008 , 183, 863-888	1	9

54	Bioavailability of Tannins and Other Oligomeric Polyphenols: a Still to Be Studied Phenomenon. Current Pharmacology Reports, 2020 , 6, 131-136	5.5	8
53	Efficacy of Allicin against Plant Pathogenic Fungi and Unveiling the Underlying Mode of Action Employing Yeast Based Chemogenetic Profiling Approach. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 256	53 ^{2.6}	8
52	Reviewing the Mechanistic Evidence Assessors E-Synthesis and EBM+: A Case Study of Amoxicillin and Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS). <i>Current Pharmaceutical Design</i> , 2019 , 25, 1866-1880	3.3	8
51	Facile Synthesis of Chrysin-derivatives with Promising Activities as Aromatase Inhibitors\(\textit{DNatural}\) Natural Product Communications, 2011 , 6, 1934578X1100600	0.9	8
50	Origanum vulgare L. extract-mediated synthesis of silver nanoparticles, their characterization and antibacterial activities. <i>AMB Express</i> , 2020 , 10, 162	4.1	8
49	Inspired by Nature: The use of Plant-derived Substrate/Enzyme Combinations to Generate Antimicrobial Activity in situ. <i>Natural Product Communications</i> , 2015 , 10, 1934578X1501001	0.9	7
48	Nematicidal and antimicrobial activities of methanol extracts of 17 plants, of importance in ethnopharmacology, obtained from the Arabian Peninsula. <i>Journal of Intercultural Ethnopharmacology</i> , 2016 , 5, 114-21		7
47	PlantCrystals-Nanosized Plant Material for Improved Bioefficacy of Medical Plants. <i>Materials</i> , 2020 , 13,	3.5	7
46	Bioactive Compounds from Medicinal Plants and their Possible Effect as Therapeutic Agents against COVID-19: A Review. <i>Current Nutrition and Food Science</i> , 2021 , 17, 621-633	0.7	7
45	Selenoneine: a Unique Reactive Selenium Species From the Blood of Tuna With Implications for Human Diseases. <i>Current Pharmacology Reports</i> , 2019 , 5, 163-173	5.5	6
44	The Caucasian flora: a still-to-be-discovered rich source of antioxidants. <i>Free Radical Research</i> , 2019 , 53, 1153-1162	4	5
43	Microbial transformation of Se oxyanions in cultures of Delftia lacustris grown under aerobic conditions. <i>Journal of Microbiology</i> , 2019 , 57, 362-371	3	5
42	Proanthocyanidins: Oligomeric Structures with Unique Biochemical Properties and Great Therapeutic Promise. <i>Natural Product Communications</i> , 2012 , 7, 1934578X1200700	0.9	5
41	Chemical Aspects of Biological Activity of Isothiocyanates and Indoles, the Products of Glucosinolate Decomposition. <i>Current Pharmaceutical Design</i> , 2019 , 25, 1717-1728	3.3	5
40	Antimicrobial, Anticancer and Multidrug-Resistant Reversing Activity of Novel Oxygen-, Sulfur- and Selenoflavones and Bioisosteric Analogues. <i>Pharmaceuticals</i> , 2020 , 13,	5.2	5
39	Selenomethionine: A Pink Trojan Redox Horse with Implications in Aging and Various Age-Related Diseases. <i>Antioxidants</i> , 2021 , 10,	7.1	5
38	Antifungal activity of tetrasulfanes against Botrytis cinerea. <i>Natural Product Communications</i> , 2013 , 8, 1599-603	0.9	5
37	Selenium and tellurium in the development of novel small molecules and nanoparticles as cancer multidrug resistance reversal agents <i>Drug Resistance Updates</i> , 2022 , 63, 100844	23.2	5

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36	Capiture plants with interesting biological activities: a case to go. Open Chemistry, 2017, 15, 208-218	1.6	4	
35	Philosophy and Biochemistry: Research at the Interface between Chemistry and Biology. <i>Foundations of Chemistry</i> , 2002 , 4, 97-125	0.7	4	
34	Chemical Impurities: An Epistemological Riddle with Serious Side Effects. <i>International Journal of Environmental Research and Public Health</i> , 2020 , 17,	4.6	3	
33	Small Molecule Catalysts with Therapeutic Potential. <i>Molecules</i> , 2018 , 23,	4.8	3	
32	The Pioneering Role of Sci in Post Publication Public Peer Review (P4R). <i>Publications</i> , 2021 , 9, 13	1.7	3	
31	It takes two to tango: synthesis of cytotoxic quinones containing two redox active centers with potential antitumor activity. <i>RSC Medicinal Chemistry</i> , 2021 , 12, 1709-1721	3.5	3	
30	Upcycling Culinary Organic Waste: Production of Plant Particles from Potato and Carrot Peels to Improve Antioxidative Capacity. <i>Current Nutraceuticals</i> , 2021 , 2, 62-70	0.7	3	
29	Synthesis, Structural Characterization, and Biological Activities of Organically Templated Cobalt Phosphite (C4N2H14)Co(H2PO3)4DH2O. <i>Sci</i> , 2019 , 1, 13	0.7	2	
28	Disambiguating "Mechanisms" in Pharmacy: Lessons from Mechanist Philosophy of Science. <i>International Journal of Environmental Research and Public Health</i> , 2020 , 17,	4.6	2	
27	Turning Apparent Waste into New Value: Up-Cycling Strategies Exemplified by Brewer Spent Grains (BSG). Current Nutraceuticals, 2020 , 1, 6-13	0.7	2	
26	Antimalarial Drugs in Ghana: A Case Study on Personal Preferences. <i>Sci</i> , 2020 , 2, 28	0.7	2	
25	Antifungal Activity of Tetrasulfanes against Botrytis cinerea. <i>Natural Product Communications</i> , 2013 , 8, 1934578X1300801	0.9	2	
24	Incredible edible selenium nanoparticles produced by food-grade microorganisms. <i>Current Nutraceuticals</i> , 2020 , 01,	0.7	2	
23	The Enigmatic Metallothioneins: A Case of Upward-Looking Research. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2	
22	Yeast Chemogenetic Screening as a Tool to Unravel the Antifungal Mode of Action of Two Selected Selenocyanates. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 3728	2.6	2	
21	Antioxidant Properties of the Native Khechechuri Pear from Western Georgia. <i>Sci</i> , 2021 , 3, 10	0.7	2	
20	Nanosizing Nigella: A Cool Alternative to Liberate Biological Activity. <i>Current Nutraceuticals</i> , 2021 , 2, 37-46	0.7	2	
19	Molecular Insights into an Antibiotic Enhancer Action of New Morpholine-Containing 5-Arylideneimidazolones in the Fight against MDR Bacteria. <i>International Journal of Molecular Sciences</i> , 2021 , 22.	6.3	2	

18	EPR Study of KO as a Source of Superoxide and BMPO-OH/OOH Radical That Cleaves Plasmid DNA and Detects Radical Interaction with HS and Se-Derivatives. <i>Antioxidants</i> , 2021 , 10,	7.1	2
17	Antimalarial Drugs in Ghana: A Case Study on Personal Preferences. <i>Sci</i> , 2020 , 2, 45	0.7	1
16	Antimalarial Drugs in Ghana: A Case Study on Personal Preferences. <i>Sci</i> , 2020 , 2, 49	0.7	1
15	Synthesis, Structural Characterization, and Biological Activities of Organically Templated Cobalt Phosphite (C4N2H14)[Co(H2PO3)4][PH2O. <i>Sci</i> , 2019 , 1, 41	0.7	1
14	Natural Flavonoids Interact with Dinitrobenzene System in Aprotic Media: An Electrochemical Probing. <i>Natural Product Communications</i> , 2012 , 7, 1934578X1200700	0.9	1
13	The closure of the Department of Chemistry at the University of Exeter [An insider view. Foundations of Chemistry, 2007, 9, 57-64	0.7	1
12	Statement analysis in chemistry. Annals of the New York Academy of Sciences, 2003, 988, 239-43	6.5	1
11	Unleashing the Biological Potential of via Dry and Wet Milling. <i>Antioxidants</i> , 2021 , 10,	7.1	1
10	The Small Matter of a Red Ox, a Particularly Sensitive Pink Cat, and the Quest for the Yellow Stone of Wisdom. <i>Current Pharmacology Reports</i> , 2018 , 4, 380-396	5.5	1
9	Antioxidant Properties of Western Georgia Native Khechechuri Pear. <i>Sci</i> , 2020 , 2, 31	0.7	O
8	Synthesis, Structural Characterization, and Biological Activities of Organically Templated Cobalt Phosphite (H2DAB)[Co(H2PO3)4][PH2O. <i>Sci</i> , 2022 , 4, 5	0.7	О
7	Sulfides inAllium Vegetables663-684		O
6	A Whiff of Sulfur: One Wind a Day Keeps the Doctor Away. <i>Antioxidants</i> , 2022 , 11, 1036	7.1	0
5	Electrochemical Potential-Biological Activity Relationships of Cyclic Sulfur-Containing Molecules Against Steinernema feltiae, Botrytis cinerea, and Neuro 2a Cell Line. <i>Current Pharmacology Reports</i> , 2019 , 5, 174-187	5.5	
4	Antioxidant Properties of Western Georgia Native Khechechuri Pear. Sci, 2019, 1, 44	0.7	
3	Revisit to 25R/25S Stereochemical Analysis of Spirostane-type Steroidal Sapogenins and Steroidal Saponins via 1H NMR Chemical Shift Data. <i>Natural Product Communications</i> , 2012 , 7, 1934578X1200700	0.9	
2	Role of Cysteine 2011 , 361-394		
1	Flush with a flash: natural three-component antimicrobial combinations based on -nitrosothiols, controlled superoxide formation and "domino" reactions leading to peroxynitrite. <i>MedChemComm</i> , 2018 , 9, 1994-1999	5	