John D Sutherland

List of Publications by Year
in descending order

55 papers	4,990 citations	136740 32 h-index	143772 57 g-index
61 all docs	61 docs citations	61 times ranked	3213 citing authors

#	Article	IF	Citations
1	Synthesis of activated pyrimidine ribonucleotides in prebiotically plausible conditions. Nature, 2009, 459, 239-242.	13.7	1,080
2	Common origins of RNA, protein and lipid precursors in a cyanosulfidic protometabolism. Nature Chemistry, 2015, 7, 301-307.	6.6	680
3	The Origin of Lifeâ€"Out of the Blue. Angewandte Chemie - International Edition, 2016, 55, 104-121.	7.2	321
4	Prebiotic synthesis of simple sugars by photoredox systems chemistry. Nature Chemistry, 2012, 4, 895-899.	6.6	189
5	Opinion: Studies on the origin of life â€" the end of the beginning. Nature Reviews Chemistry, 2017, 1, .	13.8	148
6	Structure of the SARS-CoV-2 RNA-dependent RNA polymerase in the presence of favipiravir-RTP. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	144
7	Towards an evolutionary theory of the origin of life based on kinetics and thermodynamics. Open Biology, 2013, 3, 130156.	1.5	141
8	Prebiotic chemistry: a new <i>modus operandi</i>. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2870-2877.	1.8	118
9	The origin of life as a planetary phenomenon. Science Advances, 2020, 6, eaax3419.	4.7	111
10	UV-light-driven prebiotic synthesis of ironâ€"sulfur clusters. Nature Chemistry, 2017, 9, 1229-1234.	6.6	110
11	A prebiotically plausible synthesis of pyrimidine Î²-ribonucleosides and their phosphate derivatives involving photoanomerization. Nature Chemistry, 2017, 9, 303-309.	6.6	109
12	Selective prebiotic formation of RNA pyrimidine and DNA purine nucleosides. Nature, 2020, 582, 60-66.	13.7	106
13	The origin of RNA precursors on exoplanets. Science Advances, 2018, 4, eaar3302.	4.7	100
14	Prebiotic chemistry: A bioorganic perspective. Tetrahedron, 1997, 53, 11493-11527.	1.0	97
15	Synthesis of Aldehydic Ribonucleotide and Amino Acid Precursors by Photoredox Chemistry. Angewandte Chemie - International Edition, 2013, 52, 5845-5847.	7.2	91
16	Prebiotically plausible oligoribonucleotide ligation facilitated by chemoselective acetylation. Nature Chemistry, 2013, 5, 383-389.	6.6	90
17	Photochemical reductive homologation of hydrogen cyanide using sulfite and ferrocyanide. Chemical Communications, 2018, 54, 5566-5569.	2.2	82
18	Direct Assembly of Nucleoside Precursors from Two- and Three-Carbon Units. Angewandte Chemie - International Edition, 2006, 45, 6176-6179.	7.2	77

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19	A Light-Releasable Potentially Prebiotic Nucleotide Activating Agent. Journal of the American Chemical Society, 2018, 140, 8657-8661.	6.6	77
20	Mimicking the surface and prebiotic chemistry of early Earth using flow chemistry. Nature Communications, 2018, 9, 1821.	5.8	71
21	High Energy Radical Chemistry Formation of HCN-rich Atmospheres on early Earth. Scientific Reports, 2017, 7, 6275.	1.6	70
22	Sulfidic Anion Concentrations on Early Earth for Surficial Origins-of-Life Chemistry. Astrobiology, 2018, 18, 1023-1040.	1.5	64
23	Expeditious, Potentially Primordial, Aminoacylation of Nucleotides. Angewandte Chemie - International Edition, 2005, 44, 6731-6734.	7.2	63
24	Length-Selective Synthesis of Acylglycerol-Phosphates through Energy-Dissipative Cycling. Journal of the American Chemical Society, 2019, 141, 3934-3939.	6.6	62
25	Prebiotic phosphorylation of 2-thiouridine provides either nucleotides or DNA building blocks via photoreduction. Nature Chemistry, 2019, 11, 457-462.	6.6	61
26	pH-Driven RNA Strand Separation under Prebiotically Plausible Conditions. Biochemistry, 2018, 57, 6382-6386.	1.2	58
27	Harnessing chemical energy for the activation and joining of prebiotic building blocks. Nature Chemistry, 2020, 12, 1023-1028.	6.6	53
28	Phosphateâ€Mediated Interconversion of <i>Riboâ€‹</i> and <i>Arabinoâ€‹</i>Configured Prebiotic Nucleotide Intermediates. Angewandte Chemie - International Edition, 2010, 49, 4641-4643.	7.2	45
29	Supply of phosphate to early Earth by photogeochemistry after meteoritic weathering. Nature Geoscience, 2020, 13, 344-348.	5.4	45
30	Provisioning the origin and early evolution of life. Emerging Topics in Life Sciences, 2019, 3, 459-468.	1.1	38
31	Illuminating Lifeâ€™s Origins: UV Photochemistry in Abiotic Synthesis of Biomolecules. Journal of the American Chemical Society, 2021, 143, 7219-7236.	6.6	35
32	Activation chemistry drives the emergence of functionalised protocells. Chemical Science, 2020, 11, 10688-10697.	3.7	34
33	Prebiotic photoredox synthesis from carbon dioxide and sulfite. Nature Chemistry, 2021, 13, 1126-1132.	6.6	34
34	On the Prebiotic Synthesis of Ribonucleotides: Photoanomerisation of Cytosine Nucleosides and Nucleotides Revisited. ChemBioChem, 2007, 8, 1170-1179.	1.3	33
35	Simultaneous Nucleotide Activation and Synthesis of Amino Acid Amides by a Potentially Prebiotic Multiâ€Component Reaction. Angewandte Chemie - International Edition, 2007, 46, 8063-8066.	7.2	30
36	Conversion of Biosynthetic Precursors of RNA to Those of DNA by Photoredox Chemistry. Journal of Molecular Evolution, 2014, 78, 245-250.	0.8	30

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37	Nonâ€Enzymatic RNA Backbone Proofreading through Energyâ€Dissipative Recycling. Angewandte Chemie - International Edition, 2017, 56, 6563-6566.	7.2	28
38	Interstrand Aminoacyl Transfer in a tRNA Acceptor Stem-Overhang Mimic. Journal of the American Chemical Society, 2021, 143, 11836-11842.	6.6	22
39	Prebiotic Photochemical Coproduction of Purine Ribo- and Deoxyribonucleosides. Journal of the American Chemical Society, 2021, 143, 14482-14486.	6.6	20
40	Mixed Anhydride Intermediates in the Reaction of 5(4<i>H</i>)â€Oxazolones with Phosphate Esters and Nucleotides. Chemistry - A European Journal, 2016, 22, 14940-14949.	1.7	19
41	Charting a course for chemistry. Nature Chemistry, 2019, 11, 286-294.	6.6	18
42	Excited-state hydrogen atom abstraction initiates the photochemistry of Î²-2â€²-deoxycytidine. Chemical Science, 2015, 6, 2035-2043.	3.7	17
43	Timescales for Prebiotic Photochemistry Under Realistic Surface Ultraviolet Conditions. Astrobiology, 2021, 21, 1099-1120.	1.5	17
44	Cyanamide as a prebiotic phosphate activating agent â€" catalysis by simple 2-oxoacid salts. Chemical Communications, 2017, 53, 11893-11896.	2.2	16
45	Solid-Phase Synthesis and Hybrization Behavior of Partially 2â€²/3â€²-<i>O</i>-Acetylated RNA Oligonucleotides. Journal of Organic Chemistry, 2014, 79, 3311-3326.	1.7	14
46	Photoredox chemistry in the synthesis of 2-aminoazoles implicated in prebiotic nucleic acid synthesis. Chemical Communications, 2020, 56, 13563-13566.	2.2	14
47	Potentially Prebiotic Synthesis of Aminoacyl-RNA via a Bridging Phosphoramidate-Ester Intermediate. Journal of the American Chemical Society, 2022, 144, 4254-4259.	6.6	11
48	Tuning the reactivity of nitriles using Cu(<scp>ii</scp>) catalysis â€" potentially prebiotic activation of nucleotides. Chemical Science, 2018, 9, 7053-7057.	3.7	10
49	Potentially Prebiotic Passerini-Type Reactions of Phosphates. Synlett, 2008, 2008, 2161-2163.	1.0	9
50	Thiophosphate â€" A Versatile Prebiotic Reagent?. Synlett, 2016, 28, 64-67.	1.0	9
51	pH-Dependent peptide bond formation by the selective coupling of Î±-amino acids in water. Chemical Communications, 2021, 57, 73-76.	2.2	6
52	Nonâ€Enzymatic RNA Backbone Proofreading through Energyâ€Dissipative Recycling. Angewandte Chemie, 2017, 129, 6663-6666.	1.6	4
53	A new and potentially prebiotic Î±-cytidine derivative. Chemical Communications, 2017, 53, 3327-3329.	2.2	3
54	Direct interplay between stereochemistry and conformational preferences in aminoacylated oligoribonucleotides. Nucleic Acids Research, 2019, 47, 11077-11089.	6.5	2

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55	Do sulfate radicals really enable a non-enzymatic Krebs cycle precursor?. Nature Ecology and Evolution, 2019, 3, 138-138.	3.4	2