# Matthew Powner

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5443400/publications.pdf

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|---|---|---|---|
| 37<br>papers | 2,871<br>citations | 257450<br>24<br>h-index | 289244<br>40<br>g-index |
| 45<br>all docs | 45<br>docs citations | 45<br>times ranked | 2057<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Prebiotic Catalytic Peptide Ligation Yields Proteinogenic Peptides by Intramolecular Amide Catalyzed Hydrolysis Facilitating Regioselective Lysine Ligation in Neutral Water. Journal of the American Chemical Society, 2022, 144, 10151-10155. | 13.7 | 13 |
| 2 | Prebiotic synthesis and triphosphorylation of 3â€²-amino-TNA nucleosides. Nature Chemistry, 2022, 14, 766-774. | 13.6 | 4 |
| 3 | Selective Prebiotic Synthesis of Î±â€Threofuranosyl Cytidine by Photochemical Anomerization. Angewandte Chemie - International Edition, 2021, 60, 10526-10530. | 13.8 | 13 |
| 4 | Selective Prebiotic Synthesis of Î±â€Threofuranosyl Cytidine by Photochemical Anomerization. Angewandte Chemie, 2021, 133, 10620-10624. | 2.0 | 2 |
| 5 | Prebiotic synthesis of cysteine peptides that catalyze peptide ligation in neutral water. Science, 2020, 370, 865-869. | 12.6 | 105 |
| 6 | Heated gas bubbles enrich, crystallize, dry, phosphorylate and encapsulate prebiotic molecules. Nature Chemistry, 2019, 11, 779-788. | 13.6 | 66 |
| 7 | Peptide ligation by chemoselective aminonitrile coupling in water. Nature, 2019, 571, 546-549. | 27.8 | 119 |
| 8 | Analyses of Aliphatic Aldehydes and Ketones in Carbonaceous Chondrites. ACS Earth and Space Chemistry, 2019, 3, 463-472. | 2.7 | 30 |
| 9 | Selective prebiotic synthesis of phosphoroaminonitriles and aminothioamides in neutral water. Communications Chemistry, 2019, 2, . | 4.5 | 17 |
| 10 | Selective aqueous acetylation controls the photoanomerization of Î±-cytidine-5â€²-phosphate. Chemical Communications, 2018, 54, 4850-4853. | 4.1 | 7 |
| 11 | Photostability of oxazoline RNA-precursors in UV-rich prebiotic environments. Chemical Communications, 2018, 54, 13407-13410. | 4.1 | 11 |
| 12 | Prebiotic nucleic acids need space to grow. Nature Communications, 2018, 9, 5172. | 12.8 | 14 |
| 13 | Selective prebiotic conversion of pyrimidine and purine anhydronucleosides into Watson-Crick base-pairing arabino-furanosyl nucleosides in water. Nature Communications, 2018, 9, 4073. | 12.8 | 36 |
| 14 | Protocells realize their potential. Nature Catalysis, 2018, 1, 569-570. | 34.4 | 2 |
| 15 | Prebiotic selection and assembly of proteinogenic amino acids and natural nucleotides from complex mixtures. Nature Chemistry, 2017, 9, 584-589. | 13.6 | 82 |
| 16 | Prebiotic Systems Chemistry: Complexity Overcoming Clutter. CheM, 2017, 2, 470-501. | 11.7 | 103 |
| 17 | Divergent prebiotic synthesis of pyrimidine and 8-oxo-purine ribonucleotides. Nature Communications, 2017, 8, 15270. | 12.8 | 84 |
| 18 | Prebiotic synthesis of aminooxazoline-5â€²-phosphates in water by oxidative phosphorylation. Chemical Communications, 2017, 53, 4919-4921. | 4.1 | 6 |

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|---|---|---|---|
| 19 | Scalable Synthesis of 2,2â€²-Anhydro-arabinofuranosyl Imidazoles. Synlett, 2017, 28, 2650-2654. | 1.8 | 2 |
| 20 | Prebiotic synthesis of phosphoenol pyruvate by Î±-phosphorylation-controlled triose glycolysis. Nature Chemistry, 2017, 9, 310-317. | 13.6 | 88 |
| 21 | A Chemistâ€™s Perspective on the Role of Phosphorus at the Origins of Life. Life, 2017, 7, 31. | 2.4 | 49 |
| 22 | Selective Acylation of Nucleosides, Nucleotides, and Glycerol-3-phosphocholine in Water. Synlett, 2016, 28, 78-83. | 1.8 | 8 |
| 23 | One-step protecting-group-free synthesis of azepinomycin in water. Organic and Biomolecular Chemistry, 2015, 13, 3378-3381. | 2.8 | 14 |
| 24 | Prebiotically plausible oligoribonucleotide ligation facilitated by chemoselective acetylation. Nature Chemistry, 2013, 5, 383-389. | 13.6 | 90 |
| 25 | Functional RNAs exhibit tolerance for non-heritable 2â€²â€“5â€² versus 3â€²â€“5â€² backbone heterogeneity. Nature Chemistry, 2013, 5, 390-394. | 13.6 | 88 |
| 26 | Detection of Potential TNA and RNA Nucleoside Precursors in a Prebiotic Mixture by Pure Shift Diffusionâ€Ordered NMR Spectroscopy. Chemistry - A European Journal, 2013, 19, 4586-4595. | 3.3 | 30 |
| 27 | Multicomponent Assembly of Proposed DNA Precursors in Water. Journal of the American Chemical Society, 2012, 134, 13889-13895. | 13.7 | 61 |
| 28 | Prebiotic chemistry: a new modus operandi. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 2870-2877. | 4.0 | 118 |
| 29 | The Origins of Nucleotides. Synlett, 2011, 2011, 1956-1964. | 1.8 | 58 |
| 30 | Phosphateâ€Mediated Interconversion of Riboâ€ and Arabinoâ€Configured Prebiotic Nucleotide Intermediates. Angewandte Chemie - International Edition, 2010, 49, 4641-4643. | 13.8 | 45 |
| 31 | A Stereoelectronic Effect in Prebiotic Nucleotide Synthesis. ACS Chemical Biology, 2010, 5, 655-657. | 3.4 | 48 |
| 32 | Chemoselective Multicomponent One-Pot Assembly of Purine Precursors in Water. Journal of the American Chemical Society, 2010, 132, 16677-16688. | 13.7 | 143 |
| 33 | Synthesis of activated pyrimidine ribonucleotides in prebiotically plausible conditions. Nature, 2009, 459, 239-242. | 27.8 | 1,080 |
| 34 | Potentially Prebiotic Synthesis of Pyrimidine Î²â€<scp>D</scp>â€Ribonucleotides by Photoanomerization/Hydrolysis of Î±â€<scp>D</scp>â€Cytidineâ€2â€²â€Phosphate. ChemBioChem, 2008, 9, 2386-2387. | 2.6 | 31 |
| 35 | On the Prebiotic Synthesis of Ribonucleotides: Photoanomerisation of Cytosine Nucleosides and Nucleotides Revisited. ChemBioChem, 2007, 8, 1170-1179. | 2.6 | 33 |
| 36 | RNA: Prebiotic Product, or Biotic Invention?. Chemistry and Biodiversity, 2007, 4, 721-739. | 2.1 | 75 |

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|---|---|---|---|
| 37 | Direct Assembly of Nucleoside Precursors from Two- and Three-Carbon Units. Angewandte Chemie - International Edition, 2006, 45, 6176-6179. | 13.8 | 77 |