Christof B Mast

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3994330/publications.pdf

Version: 2024-02-01

19	645	758635 12	839053 18
papers	citations	h-index	g-index

21	21	21	572
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Escalation of polymerization in a thermal gradient. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8030-8035.	3.3	133
2	Thermal Trap for DNA Replication. Physical Review Letters, 2010, 104, 188102.	2.9	122
3	Heated gas bubbles enrich, crystallize, dry, phosphorylate and encapsulate prebiotic molecules. Nature Chemistry, 2019, 11, 779-788.	6.6	66
4	Dry Polymerization of 3â€²,5â€²â€Cyclic GMP to Long Strands of RNA. ChemBioChem, 2014, 15, 879-883.	1.3	60
5	Proton gradients and pH oscillations emerge from heat flow at the microscale. Nature Communications, 2017, 8, 1897.	5.8	47
6	Non-equilibrium conditions inside rock pores drive fission, maintenance and selection of coacervate protocells. Nature Chemistry, 2022, 14, 32-39.	6.6	45
7	Thermal Habitat for RNA Amplification and Accumulation. Physical Review Letters, 2020, 125, 048104.	2.9	34
8	Periodic Melting of Oligonucleotides by Oscillating Salt Concentrations Triggered by Microscale Water Cycles Inside Heated Rock Pores. Angewandte Chemie - International Edition, 2019, 58, 13155-13160.	7.2	26
9	Optical fluid and biomolecule transport with thermal fields. Physical Chemistry Chemical Physics, 2011, 13, 9918.	1.3	25
10	Water cycles in a Hadean CO2 atmosphere drive the evolution of long DNA. Nature Physics, 2022, 18, 579-585.	6.5	20
11	Periodic Melting of Oligonucleotides by Oscillating Salt Concentrations Triggered by Microscale Water Cycles Inside Heated Rock Pores. Angewandte Chemie, 2019, 131, 13289-13294.	1.6	18
12	Heat flows in rock cracks naturally optimize salt compositions for ribozymes. Nature Chemistry, 2021, 13, 1038-1045.	6.6	16
13	Heatâ€Flowâ€Driven Oligonucleotide Gelation Separates Singleâ€Base Differences. Angewandte Chemie - International Edition, 2016, 55, 6676-6679.	7.2	12
14	THERMAL SOLUTIONS FOR MOLECULAR EVOLUTION. International Journal of Modern Physics B, 2012, 26, 1230017.	1.0	7
15	Emergence of Life from Trapped Nucleotides? Non-Equilibrium ÂBehavior of Oligonucleotides in Thermal Gradients. Synlett, 2016, 28, 56-63.	1.0	6
16	Heatâ€Flowâ€Driven Oligonucleotide Gelation Separates Singleâ€Base Differences. Angewandte Chemie, 2016, 128, 6788-6791.	1.6	3
17	Could Thermal Gradients Drive Molecular Evolution?. Current Organic Chemistry, 2013, 17, 1732-1737.	0.9	3
18	Optochemical disequilibrium to measure biomolecule charge. Physical Review E, 2018, 98, .	0.8	1

#	Article	IF	Citations
19	RÃ¼cktitelbild: Heatâ€Flowâ€Driven Oligonucleotide Gelation Separates Singleâ€Base Differences (Angew.) Tj ETQq1 1 0.784314 rgBT	1.6	0