David Soloveichik

List of Publications by Year
in descending order

18 papers	3,285 citations	933447 10 h-index	888059 17 g-index
21 all docs	21 docs citations	21 times ranked	2009 citing authors

#	ARTICLE	IF	CITATIONS
1	Enzyme-Free Nucleic Acid Logic Circuits. Science, 2006, 314, 1585-1588.	12.6	1,440
2	DNA as a universal substrate for chemical kinetics. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5393-5398.	7.1	649
3	Programmable chemical controllers made from DNA. Nature Nanotechnology, 2013, 8, 755-762.	31.5	439
4	Enzyme-free nucleic acid dynamical systems. Science, 2017, 358, .	12.6	274
5	Effective design principles for leakless strand displacement systems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12182-E12191.	7.1	94
6	Deterministic function computation with chemical reaction networks. Natural Computing, 2014, 13, 517-534.	3.0	88
7	Efficient Turing-Universal Computation with DNA Polymers. Lecture Notes in Computer Science, 2011, , 123-140.	1.3	80
8	DNA punch cards for storing data on native DNA sequences via enzymatic nicking. Nature Communications, 2020, 11, 1742.	12.8	70
9	Leakless DNA Strand Displacement Systems. Lecture Notes in Computer Science, 2015, , 133-153.	1.3	50
10	Rate-independent computation in continuous chemical reaction networks. , 2014, , .		32
11	Stable leader election in population protocols requires linear time. Distributed Computing, 2018, 31, 257-271.	0.8	32
12	SIMD||DNA: Single Instruction, Multiple Data Computation with DNA Strand Displacement Cascades. Lecture Notes in Computer Science, 2019, , 219-235.	1.3	10
13	The Design Space of Strand Displacement Cascades with Toehold-Size Clamps. Lecture Notes in Computer Science, 2017, , 64-81.	1.3	8
14	Thermodynamic Binding Networks. Lecture Notes in Computer Science, 2017, , 249-266.	1.3	8
15	Computing properties of stable configurations of thermodynamic binding networks. Theoretical Computer Science, 2019, 785, 17-29.	0.9	3
16	Composable Rate-Independent Computation in Continuous Chemical Reaction Networks. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 250-260.	3.0	3
17	Programming and training rate-independent chemical reaction networks. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	3
18	Programming Substrate-Independent Kinetic Barriers With Thermodynamic Binding Networks. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 283-295.	3.0	1