

# Gonen Ashkenasy

## List of Publications by Year in descending order

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44  
papers

2,552  
citations

218677

26  
h-index

223800

46  
g-index

47  
all docs

47  
docs citations

47  
times ranked

1914  
citing authors

#	ARTICLE	IF	CITATIONS
1	Systems chemistry. <i>Chemical Society Reviews</i> , 2017, 46, 2543-2554.	38.1	415
2	Boolean Logic Functions of a Synthetic Peptide Network. <i>Journal of the American Chemical Society</i> , 2004, 126, 11140-11141.	13.7	210
3	Design of a directed molecular network. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 10872-10877.	7.1	193
4	Prebiotic Peptides: Molecular Hubs in the Origin of Life. <i>Chemical Reviews</i> , 2020, 120, 4707-4765.	47.7	189
5	Self-Replicating Amphiphilic $\beta$ -Sheet Peptides. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6683-6686.	13.8	137
6	The Road to Non-Enzymatic Molecular Networks. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 6128-6136.	13.8	133
7	Emergent Catalytic Behavior of Self-Assembled Low Molecular Weight Peptide-Based Aggregates and Hydrogels. <i>Chemistry - A European Journal</i> , 2016, 22, 6687-6694.	3.3	115
8	Systems Chemistry: Logic Gates, Arithmetic Units, and Network Motifs in Small Networks. <i>Chemistry - A European Journal</i> , 2009, 15, 1765-1775.	3.3	104
9	Transient Fibril Structures Facilitating Nonenzymatic Self-Replication. <i>ACS Nano</i> , 2012, 6, 7893-7901.	14.6	79
10	A chemically fueled non-enzymatic bistable network. <i>Nature Communications</i> , 2019, 10, 4636.	12.8	58
11	Emergence of native peptide sequences in prebiotic replication networks. <i>Nature Communications</i> , 2017, 8, 434.	12.8	51
12	Light-Induced Peptide Replication Controls Logic Operations in Small Networks. <i>Chemistry - A European Journal</i> , 2010, 16, 12096-12099.	3.3	50
13	Building Logic into Peptide Networks: Bottom-Up and Top-Down. <i>Israel Journal of Chemistry</i> , 2011, 51, 106-117.	2.3	49
14	Replication NAND gate with light as input and output. <i>Chemical Communications</i> , 2011, 47, 710-712.	4.1	47
15	Chemical and light triggering of peptide networks under partial thermodynamic control. <i>Chemical Communications</i> , 2012, 48, 1419-1421.	4.1	47
16	Competition and Cooperation in Dynamic Replication Networks. <i>Chemistry - A European Journal</i> , 2015, 21, 648-654.	3.3	46
17	The Strong Influence of Structure Polymorphism on the Conductivity of Peptide Fibrils. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9988-9992.	13.8	44
18	Sequence dependent proton conduction in self-assembled peptide nanostructures. <i>Nanoscale</i> , 2016, 8, 2358-2366.	5.6	44

#	ARTICLE	IF	CITATIONS
19	Achieving biopolymer synergy in systems chemistry. <i>Chemical Society Reviews</i> , 2018, 47, 5444-5456.	38.1	43
20	Symmetry and order in systems chemistry. <i>Journal of Chemical Physics</i> , 2009, 130, 164907.	3.0	41
21	A Bistable Switch in Dynamic Thiopeptide Folding and Template-Directed Ligation. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12452-12456.	13.8	38
22	Catalyst: Can Systems Chemistry Unravel the Mysteries of the Chemical Origins of Life?. <i>CheM</i> , 2019, 5, 1917-1920.	11.7	37
23	Introducing charge transfer functionality into prebiotically relevant $\beta$ -sheet peptide fibrils. <i>Chemical Communications</i> , 2014, 50, 6733.	4.1	35
24	A High-Resolution Structure that Provides Insight into Coiled-Coil Thiopeptide Dynamic Chemistry. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 9944-9947.	13.8	34
25	Effects of mutations in de novo designed synthetic amphiphilic $\beta$ -sheet peptides on self-assembly of fibrils. <i>Chemical Communications</i> , 2013, 49, 6561.	4.1	29
26	Primitive selection of the fittest emerging through functional synergy in nucleopeptide networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	27
27	Coupled Oscillations and Circadian Rhythms in Molecular Replication Networks. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 60-65.	4.6	25
28	Functional Assemblies Emerging in Complex Mixtures of Peptides and Nucleic Acid Peptide Chimeras. <i>Chemistry - A European Journal</i> , 2018, 24, 10128-10135.	3.3	24
29	Open Prebiotic Environments Drive Emergent Phenomena and Complex Behavior. <i>Life</i> , 2019, 9, 45.	2.4	21
30	Bistability and Bifurcation in Minimal Self-Replication and Nonenzymatic Catalytic Networks. <i>ChemPhysChem</i> , 2017, 18, 1842-1850.	2.1	18
31	$\beta$ -Sheet-Induced Chirogenesis in Polymerization of Oligopeptides. <i>ChemPhysChem</i> , 2011, 12, 2771-2780.	2.1	16
32	Signaling in Systems Chemistry: Programming Gold Nanoparticles Formation and Assembly Using a Dynamic Bistable Network. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 4512-4517.	13.8	16
33	The Influence of Modularity, Seeding, and Product Inhibition on Peptide Autocatalytic Network Dynamics. <i>ChemPhysChem</i> , 2018, 19, 2437-2444.	2.1	11
34	Robustness of synthetic circadian clocks to multiple environmental changes. <i>Chemical Communications</i> , 2015, 51, 5672-5675.	4.1	9
35	The Strong Influence of Structure Polymorphism on the Conductivity of Peptide Fibrils. <i>Angewandte Chemie</i> , 2016, 128, 10142-10146.	2.0	9
36	A Bistable Switch in Dynamic Thiopeptide Folding and Template-Directed Ligation. <i>Angewandte Chemie</i> , 2015, 127, 12629-12633.	2.0	8

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37	How Catalytic Order Drives the Complexification of Molecular Replication Networks. Israel Journal of Chemistry, 2015, 55, 880-890.	2.3	7
38	Programming Multistationarity in Chemical Replication Networks. ChemSystemsChem, 2020, 2, e1900048.	2.6	7
39	How Symmetry and Order Affect Logic Operations and Computation in Catalytic Chemical Networks. Journal of Computational and Theoretical Nanoscience, 2011, 8, 471-480.	0.4	6
40	Rhythm before life. Nature Chemistry, 2019, 11, 681-683.	13.6	6
41	Dynamic Surface Layer Coiled Coil Proteins Processing Analog-to-Digital Information. Journal of the American Chemical Society, 2021, 143, 17441-17451.	13.7	6
42	Theoretical Models of Generalized Quasispecies. Current Topics in Microbiology and Immunology, 2015, 392, 141-159.	1.1	4
43	Signaling in Systems Chemistry: Programming Gold Nanoparticles Formation and Assembly Using a Dynamic Bistable Network. Angewandte Chemie, 2021, 133, 4562-4567.	2.0	4
44	Emergence of Function in Synthetic Chemical Networks. ChemSystemsChem, 2019, 1, e1900008.	2.6	3