Philippe Nghe

List of Publications by Year
in descending order

34	1,616	471509 17	361022 35
papers	citations	h-index	g-index

41	41	41	1992
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stochasticity of metabolism and growth at the single-cell level. Nature, 2014, 514, 376-379.	27.8	370
2	Microfluidic stickers. Lab on A Chip, 2008, 8, 274-279.	6.0	228
3	Transient compartmentalization of RNA replicators prevents extinction due to parasites. Science, 2016, 354, 1293-1296.	12.6	116
4	Prebiotic network evolution: six key parameters. Molecular BioSystems, 2015, 11, 3206-3217.	2.9	93
5	Individuality and universality in the growth-division laws of singleE. colicells. Physical Review E, 2016, 93, 012408.	2.1	82
6	Single-Cell Dynamics Reveals Sustained Growth during Diauxic Shifts. PLoS ONE, 2013, 8, e61686.	2.5	80
7	Microfluidics and complex fluids. Lab on A Chip, 2011, 11, 788.	6.0	65
8	Universal motifs and the diversity of autocatalytic systems. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25230-25236.	7.1	54
9	Recent insights into the genotypeâ€“phenotype relationship from massively parallel genetic assays. Evolutionary Applications, 2019, 12, 1721-1742.	3.1	52
10	Generation and filtering of gene expression noise by the bacterial cell cycle. BMC Biology, 2016, 14, 11.	3.8	45
11	Interfacially Driven Instability in the Microchannel Flow of a Shear-Banding Fluid. Physical Review Letters, 2010, 104, 248303.	7.8	42
12	Coupled catabolism and anabolism in autocatalytic RNA sets. Nucleic Acids Research, 2018, 46, 9660-9666.	14.5	36
13	Flow-induced polymer degradation probed by a high throughput microfluidic set-up. Journal of Non-Newtonian Fluid Mechanics, 2010, 165, 313-322.	2.4	32
14	High shear rheology of shear banding fluids in microchannels. Applied Physics Letters, 2008, 93, .	3.3	29
15	Evolutionary constraints in variable environments, from proteins to networks. Trends in Genetics, 2014, 30, 192-198.	6.7	27
16	Flux, toxicity, and expression costs generate complex genetic interactions in a metabolic pathway. Science Advances, 2020, 6, eabb2236.	10.3	26
17	Microfabricated Polyacrylamide Devices for the Controlled Culture of Growing Cells and Developing Organisms. PLoS ONE, 2013, 8, e75537.	2.5	25
18	Mineral surfaces select for longer RNA molecules. Chemical Communications, 2019, 55, 2090-2093.	4.1	23

#	Article	IF	Citations
19	Sign epistasis caused by hierarchy within signalling cascades. Nature Communications, 2018, 9, 1451.	12.8	22
20	Selection Dynamics in Transient Compartmentalization. Physical Review Letters, 2018, 120, 158101.	7.8	21
21	Stochasticity in cellular metabolism and growth: Approaches and consequences. Current Opinion in Systems Biology, 2018, 8, 131-136.	2.6	18
22	Metabolic cost of rapid adaptation of single yeast cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10660-10666.	7.1	17
23	Darwinian properties and their trade-offs in autocatalytic RNA reaction networks. Nature Communications, 2021, 12, 842.	12.8	17
24	Topological and thermodynamic factors that influence the evolution of small networks of catalytic RNA species. Rna, 2017, 23, 1088-1096.	3.5	16
25	Thresholds in Origin of Life Scenarios. IScience, 2020, 23, 101756.	4.1	15
26	Information-theoretic analysis of the directional influence between cellular processes. PLoS ONE, 2017, 12, e0187431.	2.5	12
27	RNA diversification by a self-reproducing ribozyme revealed by deep sequencing and kinetic modelling. Chemical Communications, 2021, 57, 7517-7520.	4.1	10
28	The generality of transient compartmentalization and its associated error thresholds. Journal of Theoretical Biology, 2020, 487, 110110.	1.7	9
29	Predicting Evolution Using Regulatory Architecture. Annual Review of Biophysics, 2020, 49, 181-197.	10.0	9
30	The Origin of Life: What Is the Question?. Astrobiology, 2022, 22, 851-862.	3.0	7
31	Large scale control and programming of gene expression using CRISPR. Seminars in Cell and Developmental Biology, 2019, 96, 124-132.	5.0	5
32	A graph-based algorithm for the multi-objective optimization of gene regulatory networks. European Journal of Operational Research, 2018, 270, 784-793.	5.7	3
33	Natural Selection beyond Life? A Workshop Report. Life, 2021, 11, 1051.	2.4	3
34	Predicting Evolutionary Constraints by Identifying Conflicting Demands in Regulatory Networks. Cell Systems, 2020, 10, 526-534.e3.	6.2	2