Kepa Ruiz-Mirazo

List of Publications by Year
in descending order

59	2,288	304743	233421
papers	citations	22 h-index	45 g-index

63	63	63	1866
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prebiotic Systems Chemistry: New Perspectives for the Origins of Life. Chemical Reviews, 2014, 114, 285-366.	47.7	674
2	A Universal Definition of Life: Autonomy and Open-Ended Evolution. Origins of Life and Evolution of Biospheres, 2004, 34, 323-346.	1.9	282
3	Basic Autonomy as a Fundamental Step in the Synthesis of Life. Artificial Life, 2004, 10, 235-259.	1.3	158
4	Soft and dispersed interface-rich aqueous systems that promote and guide chemical reactions. Nature Reviews Chemistry, 2018, 2, 306-327.	30.2	92
5	Biological regulation: controlling the system from within. Biology and Philosophy, 2016, 31, 237-265.	1.4	91
6	Autonomy in evolution: from minimal to complex life. SynthÃˆse, 2012, 185, 21-52.	1.1	77
7	Chemical roots of biological evolution: the origins of life as a process of development of autonomous functional systems. Open Biology, 2017, 7, 170050.	3.6	71
8	Metabolism and the problem of its universalization. BioSystems, 1999, 49, 45-61.	2.0	57
9	Stochastic simulations of minimal self-reproducing cellular systems. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 1789-1802.	4.0	56
10	On the way towards â€˜basic autonomous agentsâ€™: Stochastic simulations of minimal lipidâ€“peptide cells. BioSystems, 2008, 91, 374-387.	2.0	55
11	Model Systems of Precursor Cellular Membranes: Long-Chain Alcohols Stabilize Spontaneously Formed Oleic Acid Vesicles. Biophysical Journal, 2012, 102, 278-286.	0.5	52
12	Enabling conditions for â€˜open-ended evolutionâ€™. Biology and Philosophy, 2007, 23, 67-85.	1.4	51
13	Fatty acids' double role in the prebiotic formation of a hydrophobic dipeptide. Chemical Science, 2016, 7, 3406-3413.	7.4	47
14	Organisms and their place in biology. Theory in Biosciences, 2000, 119, 209.	1.4	40
15	Theoretical conditions for the stationary reproduction of model protocells. Integrative Biology (United Kingdom), 2013, 5, 324-341.	1.3	37
16	The systems perspective at the crossroads between chemistry and biology. Journal of Theoretical Biology, 2015, 381, 11-22.	1.7	37
17	Organizational requirements for multicellular autonomy: insights from a comparative case study. Biology and Philosophy, 2014, 29, 851-884.	1.4	31
18	The problem of the emergence of functional diversity in prebiotic evolution. Biology and Philosophy, 2009, 24, 585-605.	1.4	30

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19	ENVIRONMENT: a computational platform to stochastically simulate reacting and self-reproducing lipid compartments. Physical Biology, 2010, 7, 036002.	1.8	30
20	Permeability-driven selection in a semi-empirical protocell model: the roots of prebiotic systems evolution. Scientific Reports, 2017, 7, 3141.	3.3	30
21	The Impact of the Paradigm of Complexity on the Foundational Frameworks of Biology and Cognitive Science. , 2011, , 311-333.		27
22	Ether- versus Ester-Linked Phospholipid Bilayers Containing either Linear or Branched Apolar Chains. Biophysical Journal, 2014, 107, 1364-1374.	0.5	27
23	Viability Conditions for a Compartmentalized Protometabolic System: A Semi-Empirical Approach. PLoS ONE, 2012, 7, e39480.	2.5	23
24	Modelling Lipid Competition Dynamics in Heterogeneous Protocell Populations. Scientific Reports, 2014, 4, 5675.	3.3	23
25	Defining Life or Bringing Biology to Life. Origins of Life and Evolution of Biospheres, 2010, 40, 203-213.	1.9	22
26	Modelling autonomy: Simulating the essence of life and cognition. BioSystems, 2008, 91, 295-304.	2.0	21
27	Synthetic Biology: Challenging Life in Order to Grasp, Use, or Extend It. Biological Theory, 2013, 8, 376-382.	1.5	19
28	Emergent Chemical Behavior in Variable-Volume Protocells. Life, 2015, 5, 181-211.	2.4	16
29	Framing major prebiotic transitions as stages of protocell development: three challenges for origins-of-life research. Beilstein Journal of Organic Chemistry, 2017, 13, 1388-1395.	2.2	13
30	â€œMinimal metabolismâ€: A key concept to investigate the origins and nature of biological systems. BioEssays, 2021, 43, e2100103.	2.5	11
31	Simulation Model for Functionalized Vesicles: Lipid-Peptide Integration in Minimal Protocells. , 2007, , 32-41.		11
32	Protocell. , 2011, , 1353-1354.		9
33	Lysozyme Effect on Oleic Acid/Oleate Vesicles. Journal of Liposome Research, 2006, 16, 143-154.	3.3	8
34	On the Origins of Information and Its Relevance for Biological Complexity. Biological Theory, 2006, 1, 227-229.	1.5	7
35	Thermally-induced aggregation and fusion of protein-free lipid vesicles. Colloids and Surfaces B: Biointerfaces, 2015, 136, 545-552.	5.0	7
36	The challenging biology of transients. EMBO Reports, 2009, 10, S33-6.	4.5	6

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37	Definitions of life as epistemic tools that reflect and foster the advance of biological knowledge. SynthÃˆse, 2021, 198, 10565-10585.	1.1	6
38	Boundary versus enabling conditions for the origins of life. Physics of Life Reviews, 2020, 34-35, 96-98.	2.8	4
39	Stochastic Simulations of Mixed-Lipid Compartments: From Self-Assembling Vesicles to Self-Producing Protocells. Advances in Experimental Medicine and Biology, 2011, 696, 689-696.	1.6	4
40	Key Issues Regarding the Origin, Nature, and Evolution of Complexity in Nature: Information as a Central Concept to Understand Biological Organization. Emergence: Complexity and Organization, 2002, 4, 63-76.	0.1	4
41	Question 7: Modelling Minimal â€˜Lipid-Peptideâ€™ Cells. Origins of Life and Evolution of Biospheres, 2007, 37, 433-437.	1.9	3
42	Polyamine-RNA-membrane interactions: From the past to the future in biology. Colloids and Surfaces B: Biointerfaces, 2017, 155, 173-181.	5.0	3
43	Reaction: A Plea for Hypothesis-Driven Research in Prebiotic Systems Chemistry. CheM, 2019, 5, 1920-1922.	11.7	3
44	The Construction of Biological â€˜Inter-Identityâ€™ as the Outcome of a Complex Process of Protocell Development in Prebiotic Evolution. Frontiers in Physiology, 2020, 11, 530.	2.8	3
45	Question 8: Bridging the Gap Between In Silico and In Vitro Approaches to Minimal Cells. Origins of Life and Evolution of Biospheres, 2007, 37, 455-458.	1.9	2
46	Key Issues Regarding the Origin, Nature, and Evolution of Complexity in Nature: Information as a Central Concept to Understand Biological Organization. Emergence: Complexity and Organization, 2002, 4, 63-76.	0.1	2
47	A universal definition of life: autonomy and open-ended evolution. , 2010, , 310-325.		1
48	Self-Organization. , 2013, , 1915-1919.		1
49	Reflections on the origin of life: More than an 'evolutionary' problem. Metode, 2015, .	0.1	1
50	Steady state analysis of a vesicle bioreactor with mechanosensitive channels. , 0, , .		1
51	The Informational Nature of Biological Causality. , 2011, , 157-176.		1
52	La biologÃa sintÃ©tica como desafÃo para comprender la autonomÃa de lo vivo. Isegoria, 2016, , 551.	0.1	1
53	In Search for Conceptual Bridges: A Review of â€œFunctions in Biological and Artificial Worldsâ€• Functions in Biological and Artificial Worlds. Comparative Philosophical Perspectives. U. Krohs and P. Kroes (Eds.). Vienna Series in Theoretical Biology. (2009, MIT Press.) 302 pages.. Artificial Life, 2010, 16, 337-340.	1.3	0
54	Editorial: â€˜Inter-identities' in Life, Mind, and Society. Frontiers in Psychology, 2021, 12, 704772.	2.1	0

#	Article	IF	Citations
55	On the Transition from Prebiotic to Proto-biological Membranes: From â€˜Self-assemblyâ€™ to â€˜Self-productionâ€™. Lecture Notes in Computer Science, 2011, , 256-264.	1.3	0
56	The Need for a Universal Definition of Life in Twenty-first-century Biology. , 2011, , 3-24.		0
57	Autonomy as a property that characterizes organisms among other multicellular systems. Contrastes, 0, , .	0.1	0
58	Systems Biology. , 2015, , 2458-2460.		0
59	A New View of Protocell Metabolism. , 0, , .		0