

Antonio Lazcano

List of Publications by Year in descending order

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133
papers

5,063
citations

109137

35
h-index

95083

68
g-index

146
all docs

146
docs citations

146
times ranked

4307
citing authors

#	ARTICLE	IF	CITATIONS
1	The Origin and Early Evolution of Life: Prebiotic Chemistry, the Pre-RNA World, and Time. <i>Cell</i> , 1996, 85, 793-798.	13.5	301
2	The Miller Volcanic Spark Discharge Experiment. <i>Science</i> , 2008, 322, 404-404.	6.0	298
3	Astrophysical and astrochemical insights into the origin of life. <i>Reports on Progress in Physics</i> , 2002, 65, 1427-1487.	8.1	267
4	A Reassessment of Prebiotic Organic Synthesis in Neutral Planetary Atmospheres. <i>Origins of Life and Evolution of Biospheres</i> , 2008, 38, 105-115.	0.8	235
5	Primordial synthesis of amines and amino acids in a 1958 Miller H ₂ S-rich spark discharge experiment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 5526-5531.	3.3	232
6	The Genomic Tree as Revealed from Whole Proteome Comparisons. <i>Genome Research</i> , 1999, 9, 550-557.	2.4	213
7	ORIGIN OF LIFE: Some Like It Hot, But Not the First Biomolecules. <i>Science</i> , 2002, 296, 1982-1983.	6.0	204
8	On the Origin of Metabolic Pathways. <i>Journal of Molecular Evolution</i> , 1999, 49, 424-431.	0.8	179
9	The origin of life?did it occur at high temperatures?. <i>Journal of Molecular Evolution</i> , 1995, 41, 689-92.	0.8	145
10	Molecular Evolution of the Lysine Biosynthetic Pathways. <i>Journal of Molecular Evolution</i> , 2002, 55, 445-449.	0.8	134
11	The roads to and from the RNA world. <i>Journal of Theoretical Biology</i> , 2003, 222, 127-134.	0.8	131
12	How long did it take for life to begin and evolve to cyanobacteria?. <i>Journal of Molecular Evolution</i> , 1994, 39, 546-554.	0.8	125
13	PERCEPTIONS OF SCIENCE: Prebiotic Soup--Revisiting the Miller Experiment. <i>Science</i> , 2003, 300, 745-746.	6.0	114
14	The evolutionary transition from RNA to DNA in early cells. <i>Journal of Molecular Evolution</i> , 1988, 27, 283-290.	0.8	109
15	Sofosbuvir as a potential alternative to treat the SARS-CoV-2 epidemic. <i>Scientific Reports</i> , 2020, 10, 9294.	1.6	82
16	Structural Analysis of Monomeric RNA-Dependent Polymerases: Evolutionary and Therapeutic Implications. <i>PLoS ONE</i> , 2015, 10, e0139001.	1.1	78
17	The Very Early Stages of Biological Evolution and the Nature of the Last Common Ancestor of the Three Major Cell Domains. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2007, 38, 361-379.	3.8	76
18	Charles Darwin and the Origin of Life. <i>Origins of Life and Evolution of Biospheres</i> , 2009, 39, 395-406.	0.8	74

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19	Molecular Evolution of Peptide Methionine Sulfoxide Reductases (MsrA and MsrB): On the Early Development of a Mechanism That Protects Against Oxidative Damage. <i>Journal of Molecular Evolution</i> , 2007, 64, 15-32.	0.8	70
20	The Definition of Life: A Brief History of an Elusive Scientific Endeavor. <i>Astrobiology</i> , 2010, 10, 1003-1009.	1.5	70
21	The Last Common Ancestor: What's in a name?. <i>Origins of Life and Evolution of Biospheres</i> , 2005, 35, 537-554.	0.8	69
22	An Investigation of Prebiotic Purine Synthesis from the Hydrolysis of HCN Polymers. <i>Origins of Life and Evolution of Biospheres</i> , 2005, 35, 79-90.	0.8	69
23	Molecular evolution of the histidine biosynthetic pathway. <i>Journal of Molecular Evolution</i> , 1995, 41, 760-74.	0.8	67
24	The 1953 Stanley L. Miller experiment: fifty years of prebiotic organic chemistry. <i>Origins of Life and Evolution of Biospheres</i> , 2003, 33, 235-242.	0.8	64
25	The Notion of a DNA Minimal Cell: A General Discourse and Some Guidelines for an Experimental Approach. <i>Helvetica Chimica Acta</i> , 2002, 85, 1759-1777.	1.0	59
26	Prebiotic Synthesis of Methionine and Other Sulfur-Containing Organic Compounds on the Primitive Earth: A Contemporary Reassessment Based on an Unpublished 1958 Stanley Miller Experiment. <i>Origins of Life and Evolution of Biospheres</i> , 2011, 41, 201-212.	0.8	59
27	Historical Development of Origins Research. <i>Cold Spring Harbor Perspectives in Biology</i> , 2010, 2, a002089-a002089.	2.3	58
28	On the early evolution of RNA polymerase. <i>Journal of Molecular Evolution</i> , 1988, 27, 365-376.	0.8	57
29	Oparin's "Origin of Life": Sixty Years Later. <i>Journal of Molecular Evolution</i> , 1997, 44, 351-353.	0.8	54
30	The origin of a novel gene through overprinting in <i>Escherichia coli</i> . <i>BMC Evolutionary Biology</i> , 2008, 8, 31.	3.2	50
31	Polyamino acids as synthetic enzymes: mechanism, applications and relevance to prebiotic catalysis. <i>Trends in Biotechnology</i> , 2005, 23, 507-513.	4.9	47
32	Prebiological evolution and the physics of the origin of life. <i>Physics of Life Reviews</i> , 2005, 2, 47-64.	1.5	45
33	Comparative Genomics and the Gene Complement of a Minimal Cell. <i>Origins of Life and Evolution of Biospheres</i> , 2004, 34, 243-256.	0.8	42
34	On the early emergence of reverse transcription: Theoretical basis and experimental evidence. <i>Journal of Molecular Evolution</i> , 1992, 35, 524-536.	0.8	39
35	What Is Life?. <i>Chemistry and Biodiversity</i> , 2008, 5, 1-15.	1.0	37
36	Evolution of the structure and chromosomal distribution of histidine biosynthetic genes. <i>Origins of Life and Evolution of Biospheres</i> , 1998, 28, 555-570.	0.8	36

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37	Hyperthermophily and the origin and earliest evolution of life. <i>International Microbiology</i> , 2003, 6, 87-94.	1.1	36
38	Prebiotic syntheses of purines and pyrimidines. <i>Advances in Space Research</i> , 1984, 4, 125-131.	1.2	35
39	The enhancement activities of histidyl-histidine in some prebiotic reactions. <i>Journal of Molecular Evolution</i> , 1990, 31, 445-452.	0.8	35
40	Viral Genome Size Distribution Does not Correlate with the Antiquity of the Host Lineages. <i>Frontiers in Ecology and Evolution</i> , 2015, 3, .	1.1	35
41	Evolutionary convergence in the biosyntheses of the imidazole moieties of histidine and purines. <i>PLoS ONE</i> , 2018, 13, e0196349.	1.1	35
42	The role of gene duplication in the evolution of purine nucleotide salvage pathways. , 1998, 28, 539-553.		34
43	Structure, function and evolution of the hemerythrin-like domain superfamily. <i>Protein Science</i> , 2018, 27, 848-860.	3.1	32
44	A minimal living system and the origin of a protocell. <i>Advances in Space Research</i> , 1984, 4, 167-176.	1.2	30
45	On the lack of evolutionary continuity between prebiotic peptides and extant enzymes. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 20028-20032.	1.3	30
46	On the origin of mitosing cells: A historical appraisal of Lynn Margulis endosymbiotic theory. <i>Journal of Theoretical Biology</i> , 2017, 434, 80-87.	0.8	30
47	Primitive Earth environments: organic syntheses and the origin and early evolution of life. <i>Precambrian Research</i> , 1983, 20, 259-282.	1.2	29
48	Debating Evidence for the Origin of Life on Earth. <i>Science</i> , 2007, 315, 937c-939c.	6.0	29
49	Which Way to Life?. <i>Origins of Life and Evolution of Biospheres</i> , 2010, 40, 161-167.	0.8	26
50	Norvaline and Norleucine May Have Been More Abundant Protein Components during Early Stages of Cell Evolution. <i>Origins of Life and Evolution of Biospheres</i> , 2013, 43, 363-375.	0.8	26
51	Paralogous histidine biosynthetic genes: evolutionary analysis of the <i>Saccharomyces cerevisiae</i> HIS6 and HIS7 genes. <i>Gene</i> , 1997, 197, 9-17.	1.0	25
52	Polyphyletic gene losses can bias backtrack characterizations of the cenancestor. <i>Journal of Molecular Evolution</i> , 1997, 45, 115-117.	0.8	25
53	Alexandr I. Oparin and the Origin of Life: A Historical Reassessment of the Heterotrophic Theory. <i>Journal of Molecular Evolution</i> , 2016, 83, 214-222.	0.8	25
54	Origin and Ancestor: Separate Environments. <i>Science</i> , 1999, 283, 791c-791.	6.0	25

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55	Molecular Evolution of the Oxygen-Binding Hemerythrin Domain. PLoS ONE, 2016, 11, e0157904.	1.1	24
56	The Origin of Life. , 2011, , 49-79.		24
57	Enhanced Synthesis of Alkyl Amino Acids in Miller's 1958 H ₂ S Experiment. Origins of Life and Evolution of Biospheres, 2011, 41, 569-574.	0.8	18
58	A phylogenetic approach to the early evolution of autotrophy: the case of the reverse TCA and the reductive acetyl-CoA pathways. International Microbiology, 2014, 17, 91-7.	1.1	18
59	Early Life: Embracing the RNA World. Current Biology, 2018, 28, R220-R222.	1.8	17
60	Giardia lamblia : Identification of peroxisomal-like proteins. Experimental Parasitology, 2018, 191, 36-43.	0.5	17
61	Comparative analysis of methodologies for the detection of horizontally transferred genes: a reassessment of first-order Markov models. In Silico Biology, 2005, 5, 581-92.	0.4	17
62	Methanogenesis on Early Stages of Life: Ancient but Not Primordial. Origins of Life and Evolution of Biospheres, 2018, 48, 407-420.	0.8	16
63	Alarmones as Vestiges of a Bygone RNA World. Journal of Molecular Evolution, 2019, 87, 37-51.	0.8	16
64	Reconstructing evolutionary relationships from functional data: a consistent classification of organisms based on translation inhibition response. Molecular Phylogenetics and Evolution, 2005, 34, 371-381.	1.2	15
65	Protein Disulfide Oxidoreductases and the Evolution of Thermophily: Was the Last Common Ancestor a Heat-Loving Microbe?. Journal of Molecular Evolution, 2007, 65, 296-303.	0.8	15
66	Frontier or fiction. Nature, 2012, 488, 160-161.	13.7	15
67	5. Prebiotic Chemistry " Biochemistry " Emergence of Life (4.4"2 Ga). Earth, Moon and Planets, 2006, 98, 153-203.	0.3	14
68	Enantioselective aldol reaction catalysed by polyleucines. Tetrahedron: Asymmetry, 2007, 18, 1265-1268.	1.8	14
69	Towards a Definition of Life: The Impossible Quest?. Space Science Reviews, 2008, 135, 5-10.	3.7	14
70	Prebiotic Evolution and Self-Assembly of Nucleic Acids. ACS Nano, 2018, 12, 9643-9647.	7.3	13
71	The biochemical roots of the RNA world: from zymonucleic acid to ribozymes. History and Philosophy of the Life Sciences, 2012, 34, 407-23.	0.6	13
72	Composition-Based Methods to Identify Horizontal Gene Transfer. Methods in Molecular Biology, 2009, 532, 215-225.	0.4	12

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73	Low complexity regions (LCRs) contribute to the hypervariability of the HIV-1 gp120 protein. <i>Journal of Theoretical Biology</i> , 2013, 338, 80-86.	0.8	12
74	Can an Imidazole Be Formed from an Alanyl-Seryl-Glycine Tripeptide under Possible Prebiotic Conditions?. <i>Origins of Life and Evolution of Biospheres</i> , 2017, 47, 345-354.	0.8	12
75	Evolution of the biosynthesis of the branched-chain amino acids. <i>Origins of Life and Evolution of Biospheres</i> , 1995, 25, 99-110.	0.8	11
76	A yellow flag on the horizon: The looming threat of yellow fever to North America. <i>International Journal of Infectious Diseases</i> , 2019, 87, 143-150.	1.5	11
77	Prokaryotic symbiotic consortia and the origin of nucleated cells: A critical review of Lynn Margulis hypothesis. <i>BioSystems</i> , 2021, 204, 104408.	0.9	11
78	Herrera's 'Plasmogenia' and Other Collected Works. , 2014, , .		11
79	Liposomes with polyribonucleotides as model of precellular systems. <i>Origins of Life and Evolution of Biospheres</i> , 1987, 17, 321-331.	0.8	10
80	The sulfocyanic theory on the origin of life: towards a critical reappraisal of an autotrophic theory. <i>International Journal of Astrobiology</i> , 2003, 2, 301-306.	0.9	10
81	On the Early Evolution of Catabolic Pathways: A Comparative Genomics Approach. I. The Cases of Glucose, Ribose, and the Nucleobases Catabolic Routes. <i>Journal of Molecular Evolution</i> , 2018, 86, 27-46.	0.8	9
82	The Nature of the Last Common Ancestor. , 2004, , 34-47.		7
83	Planetary change and biochemical adaptation: molecular evolution of corrinoid and heme biosyntheses. <i>Hematology</i> , 2012, 17, s7-s10.	0.7	7
84	The forgotten dispute: A.I. Oparin and H.J. Muller on the origin of life. <i>History and Philosophy of the Life Sciences</i> , 2012, 34, 373-90.	0.6	7
85	Letter to the Editor: Chemical Evolution and the Primitive Soup: Did Oparin Get It All Right?. <i>Journal of Theoretical Biology</i> , 1997, 184, 219-223.	0.8	6
86	Heterologous Gene Expression in an Escherichia coli Population Under Starvation Stress Conditions. <i>Journal of Molecular Evolution</i> , 1998, 47, 363-368.	0.8	6
87	Should the Teaching of Biological Evolution Include the Origin of Life?. <i>Evolution: Education and Outreach</i> , 2010, 3, 661-667.	0.3	6
88	Coenzymes, viruses and the RNA world. <i>Biochimie</i> , 2012, 94, 1467-1473.	1.3	6
89	Mexican and U.S. scientists: Partners. <i>Science</i> , 2017, 355, 1139-1139.	6.0	6
90	Quo vadis, Mexican science?. <i>Science</i> , 2019, 365, 301-301.	6.0	6

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91	Ancient gene duplications in RNA viruses revealed by protein tertiary structure comparisons. <i>Virus Evolution</i> , 2021, 7, veab019.	2.2	6
92	Structural analysis of viral ExoN domains reveals polyphyletic hijacking events. <i>PLoS ONE</i> , 2021, 16, e0246981.	1.1	6
93	The origin and early evolution of nucleic acid polymerases. <i>Advances in Space Research</i> , 1992, 12, 207-216.	1.2	5
94	An Answer in Search of a Question How Life Began: The Genesis of Life on Earth, by William Day, Foundation for New Directions, Cambridge, MA, 2002, 215 pp., ISBN 0-9625455-3-8.. <i>Astrobiology</i> , 2004, 4, 469-471.	1.5	5
95	The Origin of Biomolecules. <i>ACS Symposium Series</i> , 2010, , 17-43.	0.5	5
96	Natural History, Microbes and Sequences: Shouldn't We Look Back Again to Organisms?. <i>PLoS ONE</i> , 2011, 6, e21334.	1.1	5
97	Rna-Binding Peptides as Early Molecular Fossils. , 2000, , 285-288.		5
98	A redefinition of the Asp-Asp domain of reverse transcriptases. <i>Journal of Molecular Evolution</i> , 1992, 35, 551-556.	0.8	4
99	Teaching Evolution in Mexico: Preaching to the Choir. <i>Science</i> , 2005, 310, 787.1-789.	6.0	4
100	The Cenacestor and Its Contemporary Biological Relics: The Case of Nucleic Acid Polymerases. , 2001, , 223-230.		4
101	Structural Analysis of Monomeric RNA-Dependent Polymerases Revisited. <i>Journal of Molecular Evolution</i> , 2022, 90, 283-295.	0.8	4
102	Membranes and prebiotic evolution: compartments, spatial isolation and the origin of life. , 2004, , 13-25.		3
103	Extremophiles and the Origin of Life. , 0, , 1-10.		3
104	Hooke and Generation of Molds. <i>Science</i> , 2003, 301, 1845c-1845.	6.0	2
105	Question 7: Comparative Genomics and Early Cell Evolution: A Cautionary Methodological Note. <i>Origins of Life and Evolution of Biospheres</i> , 2007, 37, 415-418.	0.8	2
106	Stanley L. Miller (1930â€“2007): Reflections and Remembrances. <i>Origins of Life and Evolution of Biospheres</i> , 2008, 38, 373-381.	0.8	2
107	Evolutionary theory: it's on the school syllabus in Mexico. <i>Nature</i> , 2008, 453, 719-719.	13.7	2
108	Metalloproteins and the Pyrite-based Origin of Life: A Critical Assessment. <i>Origins of Life and Evolution of Biospheres</i> , 2011, 41, 347-356.	0.8	2

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109	Precellular Evolution and the Origin of Life: Some Notes on Reductionism, Complexity and Historical Contingency. , 0, , 75-94.		2
110	On the early evolution of reverse-transcriptase. Origins of Life and Evolution of Biospheres, 1989, 19, 385-386.	0.8	1
111	Panspermiaâ€”true or false?. Lancet, The, 2003, 362, 406-407.	6.3	1
112	Astrobiology: Towards an Understanding of the Emergence of Life in the Universe. Symposium - International Astronomical Union, 2004, 213, 245-254.	0.1	1
113	Prebiotic Chemistry â€” Biochemistry â€” Emergence of Life (4.4-2 Ga). , 2006, , 153-203.		1
114	The Pope, condoms, and the evolution of HIV. Lancet Infectious Diseases, The, 2009, 9, 461-462.	4.6	1
115	The Origin and Early Evolution of Life: Where, When and How?. Evolution: Education and Outreach, 2012, 5, 334-336.	0.3	1
116	Peptide Nucleic Acids as a Possible Primordial Genetic Polymer. , 2001, , 3-10.		1
117	The Tempo and mode(S) of Prebiotic Evolution. International Astronomical Union Colloquium, 1997, 161, 419-429.	0.1	1
118	Two short low complexity regions (LCRs) are hallmark sequences of the Delta SARS-CoV-2 variant spike protein. Scientific Reports, 2022, 12, 936.	1.6	1
119	A classification of rna polymerases based on their evolutionary relatedness. Origins of Life and Evolution of Biospheres, 1989, 19, 407-408.	0.8	0
120	On the prebiological significance of the catalytic activity of histidyl-histidine. Origins of Life and Evolution of Biospheres, 1989, 19, 415-415.	0.8	0
121	Recent advances in chemical evolution and the origins of life. Acta Astronautica, 1992, 26, 157-158.	1.7	0
122	Prebiotic chemistry, artificial life, and complexity theory: What do they tell us about the origin of biological systems?. Lecture Notes in Computer Science, 1995, , 103-115.	1.0	0
123	Response. Journal of Molecular Evolution, 1997, 45, 340-341.	0.8	0
124	Future Perspectives and Strategies in Astrobiology. , 2004, , 477-512.		0
125	Bioastronomy 2004. Astrobiology, 2005, 5, 575-575.	1.5	0
126	Comparative genomics and early cell evolution. , 0, , 259-269.		0

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127	Cells, Molecules and Evolution: Historical Issues in Molecular Evolution. Journal of Molecular Evolution, 2016, 83, 157-158.	0.8	0
128	How Did Life Originate?. Social and Ecological Interactions in the Galapagos Islands, 2013, , 17-32.	0.4	0
129	Origin of Life. , 2014, , 1-9.		0
130	Primordial Soup. , 2015, , 2010-2014.		0
131	Origin of Life. , 2015, , 1791-1799.		0
132	The RNA World: Piecing together the historical development of a hypothesis. Metode, 2015, .	0.0	0
133	A Note on the Potential Clinical Use of Sofosbuvir to Treat COVID-19: The Importance of Protease Inhibitors. SSRN Electronic Journal, 0, , .	0.4	0