Antonio Lazcano

List of Publications by Year
in descending order

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	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
2	Structural Analysis of Monomeric RNA-Dependent Polymerases Revisited. Journal of Molecular Evolution, 2022, 90, 283-295.	0.8	4
3	Ancient gene duplications in RNA viruses revealed by protein tertiary structure comparisons. Virus Evolution, 2021, 7, veab019.	2.2	6
4	Structural analysis of viral ExoN domains reveals polyphyletic hijacking events. PLoS ONE, 2021, 16, e0246981.	1.1	6
5	Prokaryotic symbiotic consortia and the origin of nucleated cells: A critical review of Lynn Margulis hypothesis. BioSystems, 2021, 204, 104408.	0.9	11
6	Sofosbuvir as a potential alternative to treat the SARS-CoV-2 epidemic. Scientific Reports, 2020, 10, 9294.	1.6	82
7	Quo vadis, Mexican science?. Science, 2019, 365, 301-301.	6.0	6
8	A yellow flag on the horizon: The looming threat of yellow fever to North America. International Journal of Infectious Diseases, 2019, 87, 143-150.	1.5	11
9	Alarmones as Vestiges of a Bygone RNA World. Journal of Molecular Evolution, 2019, 87, 37-51.	0.8	16
10	Early Life: Embracing the RNA World. Current Biology, 2018, 28, R220-R222.	1.8	17
11	Structure, function and evolution of the hemerythrinâ€like domain superfamily. Protein Science, 2018, 27, 848-860.	3.1	32
12	On the Early Evolution of Catabolic Pathways: A Comparative Genomics Approach. I. The Cases of Glucose, Ribose, and the Nucleobases Catabolic Routes. Journal of Molecular Evolution, 2018, 86, 27-46.	0.8	9
13	Methanogenesis on Early Stages of Life: Ancient but Not Primordial. Origins of Life and Evolution of Biospheres, 2018, 48, 407-420.	0.8	16
14	Prebiotic Evolution and Self-Assembly of Nucleic Acids. ACS Nano, 2018, 12, 9643-9647.	7.3	13
15	Evolutionary convergence in the biosyntheses of the imidazole moieties of histidine and purines. PLoS ONE, 2018, 13, e0196349.	1.1	35
16	Giardia lamblia : Identification of peroxisomal-like proteins. Experimental Parasitology, 2018, 191, 36-43.	0.5	17
17	Mexican and U.S. scientists: Partners. Science, 2017, 355, 1139-1139.	6.0	6
18	On the origin of mitosing cells: A historical appraisal of Lynn Margulis endosymbiotic theory. Journal of Theoretical Biology, 2017, 434, 80-87.	0.8	30

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19	Can an Imidazole Be Formed from an Alanyl-Seryl-Glycine Tripeptide under Possible Prebiotic Conditions?. Origins of Life and Evolution of Biospheres, 2017, 47, 345-354.	0.8	12
20	Molecular Evolution of the Oxygen-Binding Hemerythrin Domain. PLoS ONE, 2016, 11, e0157904.	1.1	24
21	Alexandr I. Oparin and the Origin of Life: A Historical Reassessment of the Heterotrophic Theory. Journal of Molecular Evolution, 2016, 83, 214-222.	0.8	25
22	Cells, Molecules and Evolution: Historical Issues in Molecular Evolution. Journal of Molecular Evolution, 2016, 83, 157-158.	0.8	0
23	On the lack of evolutionary continuity between prebiotic peptides and extant enzymes. Physical Chemistry Chemical Physics, 2016, 18, 20028-20032.	1.3	30
24	Viral Genome Size Distribution Does not Correlate with the Antiquity of the Host Lineages. Frontiers in Ecology and Evolution, 2015, 3, .	1.1	35
25	Structural Analysis of Monomeric RNA-Dependent Polymerases: Evolutionary and Therapeutic Implications. PLoS ONE, 2015, 10, e0139001.	1.1	78
26	Primordial Soup. , 2015, , 2010-2014.		0
27	Origin of Life. , 2015, , 1791-1799.		0
28	The RNA World: Piecing together the historical development of a hypothesis. Metode, 2015, .	0.0	0
29	Herrera's 'Plasmogenia' and Other Collected Works. , 2014, , .		11
30	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
31	Origin of Life. , 2014, , 1-9.		0
32	Low complexity regions (LCRs) contribute to the hypervariability of the HIV-1 gp120 protein. Journal of Theoretical Biology, 2013, 338, 80-86.	0.8	12
33	Norvaline and Norleucine May Have Been More Abundant Protein Components during Early Stages of Cell Evolution. Origins of Life and Evolution of Biospheres, 2013, 43, 363-375.	0.8	26
34	How Did Life Originate?. Social and Ecological Interactions in the Galapagos Islands, 2013, , 17-32.	0.4	0
35	Planetary change and biochemical adaptation: molecular evolution of corrinoid and heme biosyntheses. Hematology, 2012, 17, s7-s10.	0.7	7
36	The Origin and Early Evolution of Life: Where, When and How?. Evolution: Education and Outreach, 2012, 5, 334-336.	0.3	1

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37	Coenzymes, viruses and the RNA world. Biochimie, 2012, 94, 1467-1473.	1.3	6
38	Frontier or fiction. Nature, 2012, 488, 160-161.	13.7	15
39	The forgotten dispute: A.I. Oparin and H.J. Muller on the origin of life. History and Philosophy of the Life Sciences, 2012, 34, 373-90.	0.6	7
40	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
41	Primordial synthesis of amines and amino acids in a 1958 Miller H ₂ S-rich spark discharge experiment. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5526-5531.	3.3	232
42	Natural History, Microbes and Sequences: Shouldn't We Look Back Again to Organisms?. PLoS ONE, 2011, 6, e21334.	1.1	5
43	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. Origins of Life and Evolution of Biospheres, 2011, 41, 201-212.	0.8	59
44	Metalloproteins and the Pyrite-based Origin of Life: A Critical Assessment. Origins of Life and Evolution of Biospheres, 2011, 41, 347-356.	0.8	2
45	Enhanced Synthesis of Alkyl Amino Acids in Millerâ€™s 1958 H2S Experiment. Origins of Life and Evolution of Biospheres, 2011, 41, 569-574.	0.8	18
46	The Origin of Life. , 2011, , 49-79.		24
47	The Origin of Biomolecules. ACS Symposium Series, 2010, , 17-43.	0.5	5
48	Should the Teaching of Biological Evolution Include the Origin of Life?. Evolution: Education and Outreach, 2010, 3, 661-667.	0.3	6
49	Which Way to Life?. Origins of Life and Evolution of Biospheres, 2010, 40, 161-167.	0.8	26
50	Historical Development of Origins Research. Cold Spring Harbor Perspectives in Biology, 2010, 2, a002089-a002089.	2.3	58
51	The Definition of Life: A Brief History of an Elusive Scientific Endeavor. Astrobiology, 2010, 10, 1003-1009.	1.5	70
52	Charles Darwin and the Origin of Life. Origins of Life and Evolution of Biospheres, 2009, 39, 395-406.	0.8	74
53	Composition-Based Methods to Identify Horizontal Gene Transfer. Methods in Molecular Biology, 2009, 532, 215-225.	0.4	12
54	The Pope, condoms, and the evolution of HIV. Lancet Infectious Diseases, The, 2009, 9, 461-462.	4.6	1

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55	A Reassessment of Prebiotic Organic Synthesis in Neutral Planetary Atmospheres. Origins of Life and Evolution of Biospheres, 2008, 38, 105-115.	0.8	235
56	Stanley L. Miller (1930â€“2007): Reflections and Remembrances. Origins of Life and Evolution of Biospheres, 2008, 38, 373-381.	0.8	2
57	Towards a Definition of Life: The Impossible Quest?. Space Science Reviews, 2008, 135, 5-10.	3.7	14
58	What Is Life?. Chemistry and Biodiversity, 2008, 5, 1-15.	1.0	37
59	Evolutionary theory: it's on the school syllabus in Mexico. Nature, 2008, 453, 719-719.	13.7	2
60	The origin of a novel gene through overprinting in Escherichia coli. BMC Evolutionary Biology, 2008, 8, 31.	3.2	50
61	The Miller Volcanic Spark Discharge Experiment. Science, 2008, 322, 404-404.	6.0	298
62	The Very Early Stages of Biological Evolution and the Nature of the Last Common Ancestor of the Three Major Cell Domains. Annual Review of Ecology, Evolution, and Systematics, 2007, 38, 361-379.	3.8	76
63	Debating Evidence for the Origin of Life on Earth. Science, 2007, 315, 937c-939c.	6.0	29
64	Molecular Evolution of Peptide Methionine Sulfoxide Reductases (MsrA and MsrB): On the Early Development of a Mechanism That Protects Against Oxidative Damage. Journal of Molecular Evolution, 2007, 64, 15-32.	0.8	70
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	Question 7: Comparative Genomics and Early Cell Evolution: A Cautionary Methodological Note. Origins of Life and Evolution of Biospheres, 2007, 37, 415-418.	0.8	2
67	Enantioselective aldol reaction catalysed by polyleucines. Tetrahedron: Asymmetry, 2007, 18, 1265-1268.	1.8	14
68	Prebiotic Chemistry â€” Biochemistry â€” Emergence of Life (4.4-2 Ga). , 2006, , 153-203.		1
69	5. Prebiotic Chemistry â€“ Biochemistry â€“ Emergence of Life (4.4â€“2 Ga). Earth, Moon and Planets, 2006, 98, 153-203.	0.3	14
70	Prebiological evolution and the physics of the origin of life. Physics of Life Reviews, 2005, 2, 47-64.	1.5	45
71	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
72	Polyamino acids as synthetic enzymes: mechanism, applications and relevance to prebiotic catalysis. Trends in Biotechnology, 2005, 23, 507-513.	4.9	47

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73	The Last Common Ancestor: What's in a name?. Origins of Life and Evolution of Biospheres, 2005, 35, 537-554.	0.8	69
74	An Investigation of Prebiotic Purine Synthesis from the Hydrolysis of HCN Polymers. Origins of Life and Evolution of Biospheres, 2005, 35, 79-90.	0.8	69
75	Teaching Evolution in Mexico: Preaching to the Choir. Science, 2005, 310, 787.1-789.	6.0	4
76	Bioastronomy 2004. Astrobiology, 2005, 5, 575-575.	1.5	0
77	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
78	Astrobiology: Towards an Understanding of the Emergence of Life in the Universe. Symposium - International Astronomical Union, 2004, 213, 245-254.	0.1	1
79	Membranes and prebiotic evolution: compartments, spatial isolation and the origin of life. , 2004, , 13-25.		3
80	Comparative Genomics and the Gene Complement of a Minimal Cell. Origins of Life and Evolution of Biospheres, 2004, 34, 243-256.	0.8	42
81	An Answer in Search of a QuestionHow 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.. Astrobiology, 2004, 4, 469-471.	1.5	5
82	The Nature of the Last Common Ancestor. , 2004, , 34-47.		7
83	Future Perspectives and Strategies in Astrobiology. , 2004, , 477-512.		0
84	The 1953 Stanley L. Miller experiment: fifty years of prebiotic organic chemistry. Origins of Life and Evolution of Biospheres, 2003, 33, 235-242.	0.8	64
85	PERCEPTIONS OF SCIENCE: Prebiotic Soup--Revisiting the Miller Experiment. Science, 2003, 300, 745-746.	6.0	114
86	Hyperthermophily and the origin and earliest evolution of life. International Microbiology, 2003, 6, 87-94.	1.1	36
87	The roads to and from the RNA world. Journal of Theoretical Biology, 2003, 222, 127-134.	0.8	131
88	Panspermiaâ€"true or false?. Lancet, The, 2003, 362, 406-407.	6.3	1
89	Hooke and Generation of Molds. Science, 2003, 301, 1845c-1845.	6.0	2
90	The sulfocyanic theory on the origin of life: towards a critical reappraisal of an autotrophic theory. International Journal of Astrobiology, 2003, 2, 301-306.	0.9	10

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91	Astrophysical and astrochemical insights into the origin of life. Reports on Progress in Physics, 2002, 65, 1427-1487.	8.1	267
92	The Notion of a DNA Minimal Cell: A General Discourse and Some Guidelines for an Experimental Approach. Helvetica Chimica Acta, 2002, 85, 1759-1777.	1.0	59
93	Molecular Evolution of the Lysine Biosynthetic Pathways. Journal of Molecular Evolution, 2002, 55, 445-449.	0.8	134
94	ORIGIN OF LIFE: Some Like It Hot, But Not the First Biomolecules. Science, 2002, 296, 1982-1983.	6.0	204
95	Peptide Nucleic Acids as a Possible Primordial Genetic Polymer. , 2001, , 3-10.		1
96	The Cenancestor and Its Contemporary Biological Relics: The Case of Nucleic Acid Polymerases. , 2001, , 223-230.		4
97	Rna-Binding Peptides as Early Molecular Fossils. , 2000, , 285-288.		5
98	On the Origin of Metabolic Pathways. Journal of Molecular Evolution, 1999, 49, 424-431.	0.8	179
99	Origin and Ancestor: Separate Environments. Science, 1999, 283, 791c-791.	6.0	25
100	The Genomic Tree as Revealed from Whole Proteome Comparisons. Genome Research, 1999, 9, 550-557.	2.4	213
101	The role of gene duplication in the evolution of purine nucleotide salvage pathways. , 1998, 28, 539-553.		34
102	Evolution of the structure and chromosomal distribution of histidine biosynthetic genes. Origins of Life and Evolution of Biospheres, 1998, 28, 555-570.	0.8	36
103	Heterologous Gene Expression in an Escherichia coli Population Under Starvation Stress Conditions. Journal of Molecular Evolution, 1998, 47, 363-368.	0.8	6
104	Paralogous histidine biosynthetic genes: evolutionary analysis of the Saccharomyces cerevisiae HIS6 and HIS7 genes. Gene, 1997, 197, 9-17.	1.0	25
105	Oparin's ``Origin of Life'': Sixty Years Later. Journal of Molecular Evolution, 1997, 44, 351-353.	0.8	54
106	Polyphyletic gene losses can bias backtrack characterizations of the cenancestor. Journal of Molecular Evolution, 1997, 45, 115-117.	0.8	25
107	Response. Journal of Molecular Evolution, 1997, 45, 340-341.	0.8	0
108	Letter to the Editor: Chemical Evolution and the Primitive Soup: Did Oparin Get It All Right?. Journal of Theoretical Biology, 1997, 184, 219-223.	0.8	6

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109	The Tempo and mode(S) of Prebiotic Evolution. International Astronomical Union Colloquium, 1997, 161, 419-429.	0.1	1
110	The Origin and Early Evolution of Life: Prebiotic Chemistry, the Pre-RNA World, and Time. Cell, 1996, 85, 793-798.	13.5	301
111	Evolution of the biosynthesis of the branched-chain amino acids. Origins of Life and Evolution of Biospheres, 1995, 25, 99-110.	0.8	11
112	The origin of life?did it occur at high temperatures?. Journal of Molecular Evolution, 1995, 41, 689-92.	0.8	145
113	Molecular evolution of the histidine biosynthetic pathway. Journal of Molecular Evolution, 1995, 41, 760-74.	0.8	67
114	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
115	How long did it take for life to begin and evolve to cyanobacteria?. Journal of Molecular Evolution, 1994, 39, 546-554.	0.8	125
116	On the early emergence of reverse transcription: Theoretical basis and experimental evidence. Journal of Molecular Evolution, 1992, 35, 524-536.	0.8	39
117	A redefinition of the Asp-Asp domain of reverse transcriptases. Journal of Molecular Evolution, 1992, 35, 551-556.	0.8	4
118	Recent advances in chemical evolution and the origins of life. Acta Astronautica, 1992, 26, 157-158.	1.7	0
119	The origin and early evolution of nucleic acid polymerases. Advances in Space Research, 1992, 12, 207-216.	1.2	5
120	The enhancement activites of histidyl-histidine in some prebiotic reactions. Journal of Molecular Evolution, 1990, 31, 445-452.	0.8	35
121	On the early evolution of reverse-transcriptase. Origins of Life and Evolution of Biospheres, 1989, 19, 385-386.	0.8	1
122	A classification of rna polymerases based on their evolutionary relatedness. Origins of Life and Evolution of Biospheres, 1989, 19, 407-408.	0.8	0
123	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
124	The evolutionary transition from RNA to DNA in early cells. Journal of Molecular Evolution, 1988, 27, 283-290.	0.8	109
125	On the early evolution of RNA polymerase. Journal of Molecular Evolution, 1988, 27, 365-376.	0.8	57
126	Liposomes with polyribonucleotides as model of precellular systems. Origins of Life and Evolution of Biospheres, 1987, 17, 321-331.	0.8	10

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127	Prebiotic syntheses of purines and pyrimidines. Advances in Space Research, 1984, 4, 125-131.	1.2	35
128	A minimal living system and the origin of a protocell. Advances in Space Research, 1984, 4, 167-176.	1.2	30
129	Primitive Earth environments: organic syntheses and the origin and early evolution of life. Precambrian Research, 1983, 20, 259-282.	1.2	29
130	Comparative genomics and early cell evolution. , 0, , 259-269.		0
131	Precellular Evolution and the Origin of Life: Some Notes on Reductionism, Complexity and Historical Contingency. , 0, , 75-94.		2
132	Extremophiles and the Origin of Life. , 0, , 1-10.		3
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