Carlos Briones

List of Publications by Year
in descending order

87 papers	3,445 citations	126708 33 h-index	149479 56 g-index
93 all docs	93 docs citations	93 times ranked	3890 citing authors

#	Article	IF	Citations
1	In vitro Selection of High Affinity DNA and RNA Aptamers that Detect Hepatitis C Virus Core Protein of Genotypes 1 to 4 and Inhibit Virus Production in Cell Culture. Journal of Molecular Biology, 2022, 434, 167501.	2.0	13
2	Population Disequilibrium as Promoter of Adaptive Explorations in Hepatitis C Virus. Viruses, 2021, 13, 616.	1.5	7
3	Discovery in space of ethanolamine, the simplest phospholipid head group. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	62
4	Amino Acid Substitutions Associated with Treatment Failure for Hepatitis C Virus Infection. Journal of Clinical Microbiology, 2020, 58, .	1.8	15
5	The Complex Molecules Detector (CMOLD): A Fluidic-Based Instrument Suite to Search for (Bio)chemical Complexity on Mars and Icy Moons. Astrobiology, 2020, 20, 1076-1096.	1.5	16
6	Dissimilar Conservation Pattern in Hepatitis C Virus Mutant Spectra, Consensus Sequences, and Data Banks. Journal of Clinical Medicine, 2020, 9, 3450.	1.0	12
7	Broad and Dynamic Diversification of Infectious Hepatitis C Virus in a Cell Culture Environment. Journal of Virology, 2020, 94, .	1.5	20
8	A new implication of quasispecies dynamics: Broad virus diversification in absence of external perturbations. Infection, Genetics and Evolution, 2020, 82, 104278.	1.0	20
9	Prebiotic Precursors of the Primordial RNA World in Space: Detection of NH₂OH. Astrophysical Journal Letters, 2020, 899, L28.	3.0	63
10	The archaeology of coding RNA. Annals of the New York Academy of Sciences, 2019, 1447, 119-134.	1.8	10
11	A Combined ELONA-(RT)qPCR Approach for Characterizing DNA and RNA Aptamers Selected against PCBP-2. Molecules, 2019, 24, 1213.	1.7	14
12	Direct visualization of the native structure of viroid RNAs at single-molecule resolution by atomic force microscopy. RNA Biology, 2019, 16, 295-308.	1.5	17
13	Versatile Graphene-Based Platform for Robust Nanobiohybrid Interfaces. ACS Omega, 2019, 4, 3287-3297.	1.6	9
14	Morphology Clustering Software for AFM Images, Based on Particle Isolation and Artificial Neural Networks. IEEE Access, 2019, 7, 160304-160323.	2.6	2
15	Experimental conditions affecting the kinetics of aqueous HCN polymerization as revealed by UVâ€“vis spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 191, 389-397.	2.0	14
16	Chemical roots of biological evolution: the origins of life as a process of development of autonomous functional systems. Open Biology, 2017, 7, 170050.	1.5	71
17	An Efficient Microarray-Based Genotyping Platform for the Identification of Drug-Resistance Mutations in Majority and Minority Subpopulations of HIV-1 Quasispecies. PLoS ONE, 2016, 11, e0166902.	1.1	7
18	The systems perspective at the crossroads between chemistry and biology. Journal of Theoretical Biology, 2015, 381, 11-22.	0.8	37

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19	A magnesium-induced RNA conformational switch at the internal ribosome entry site of hepatitis C virus genome visualized by atomic force microscopy. Nucleic Acids Research, 2015, 43, 565-580.	6.5	23
20	A novel representation of genomic sequences for taxonomic clustering and visualization by means of self-organizing maps. Bioinformatics, 2015, 31, 736-744.	1.8	19
21	High-Resolution Hepatitis C Virus Subtyping Using NS5B Deep Sequencing and Phylogeny, an Alternative to Current Methods. Journal of Clinical Microbiology, 2015, 53, 219-226.	1.8	74
22	Structural modifications of gold thin films produced by thiol-derivatized single-stranded DNA immobilization. Journal of Physics Condensed Matter, 2014, 26, 055010.	0.7	6
23	End-to-end crosstalk within the hepatitis C virus genome mediates the conformational switch of the 3â€²X-tail region. Nucleic Acids Research, 2014, 42, 567-582.	6.5	53
24	Deep subsurface sulfate reduction and methanogenesis in the Iberian Pyrite Belt revealed through geochemistry and molecular biomarkers. Geobiology, 2014, 12, 34-47.	1.1	33
25	Prebiotic Systems Chemistry: New Perspectives for the Origins of Life. Chemical Reviews, 2014, 114, 285-366.	23.0	674
26	Efficient HIV-1 inhibition by a 16 nt-long RNA aptamer designed by combining in vitro selection and in silico optimisation strategies. Scientific Reports, 2014, 4, 6242.	1.6	34
27	EMERGENCE AND SELECTION OF BIOMODULES: STEPS IN THE ASSEMBLY OF A PROTOCELL. World Scientific Lecture Notes in Complex Systems, 2013, , 323-343.	0.1	0
28	The folding of the hepatitis C virus internal ribosome entry site depends on the 3â€²-end of the viral genome. Nucleic Acids Research, 2012, 40, 11697-11713.	6.5	37
29	Applications of peptide nucleic acids (PNAs) and locked nucleic acids (LNAs) in biosensor development. Analytical and Bioanalytical Chemistry, 2012, 402, 3071-3089.	1.9	102
30	Structural analysis provides insights into the modular organization of picornavirus IRES. Virology, 2011, 409, 251-261.	1.1	46
31	Structural basis for the biological relevance of the invariant apical stem in IRES-mediated translation. Nucleic Acids Research, 2011, 39, 8572-8585.	6.5	58
32	The metavirome of a hypersaline environment. Environmental Microbiology, 2010, 12, 2965-2976.	1.8	78
33	Populations of RNA Molecules as Computational Model for Evolution. , 2010, , 67-79.		0
34	The dawn of the RNA World: Toward functional complexity through ligation of random RNA oligomers. Rna, 2009, 15, 743-749.	1.6	89
35	Nucleic acid interactions with pyrite surfaces. Chemical Physics, 2008, 352, 11-18.	0.9	19
36	Synthesis of cobalt ferrite core/metallic shell nanoparticles for the development of a specific PNA/DNA biosensor. Journal of Colloid and Interface Science, 2008, 321, 484-492.	5.0	128

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37	On the structural repertoire of pools of short, random RNA sequences. Journal of Theoretical Biology, 2008, 252, 750-763.	0.8	43
38	Label-free detection of DNA hybridization based on hydration-induced tension in nucleic acid films. Nature Nanotechnology, 2008, 3, 301-307.	15.6	194
39	Topology of evolving, mutagenized viral populations: quasispecies expansion, compression, and operation of negative selection. BMC Evolutionary Biology, 2008, 8, 207.	3.2	31
40	Silicon Surface Nanostructuring for Covalent Immobilization of Biomolecules. Journal of Physical Chemistry C, 2008, 112, 9308-9314.	1.5	22
41	Minority report: hidden memory genomes in HIV-1 quasispecies and possible clinical implications. AIDS Reviews, 2008, 10, 93-109.	0.5	51
42	Characterization of minority subpopulations in the mutant spectrum of HIV-1 quasispecies by successive specific amplifications. Virus Research, 2007, 129, 123-134.	1.1	11
43	Do peptide nucleic acids form self-assembled monolayers on pyrite surfaces?. Surface Science, 2007, 601, 4195-4199.	0.8	11
44	A DNA biosensor based on peptide nucleic acids on gold surfaces. Biosensors and Bioelectronics, 2007, 22, 1926-1932.	5.3	79
45	Collective properties of evolving molecular quasispecies. BMC Evolutionary Biology, 2007, 7, 110.	3.2	36
46	Clustering and Visualizing HIV Quasispecies Using Kohonenâ€™s Self-Organizing Maps. , 2007, , 940-947.		0
47	Minority memory genomes can influence the evolution of HIV-1 quasispecies in vivo. Gene, 2006, 384, 129-138.	1.0	35
48	Genomics of Viruses. , 2006, , 367-388.		5
49	Microarray-based identification of antigenic variants of foot-and-mouth disease virus: a bioinformatics quality assessment. BMC Genomics, 2006, 7, 117.	1.2	16
50	Modular evolution and increase of functional complexity in replicating RNA molecules. Rna, 2006, 13, 97-107.	1.6	44
51	STEC-EPEC Oligonucleotide Microarray: A New Tool for Typing Genetic Variants of the LEE Pathogenicity Island of Human and Animal Shiga Toxinâ€“Producing Escherichia coli (STEC) and Enteropathogenic E. coli (EPEC) Strains. Clinical Chemistry, 2006, 52, 192-201.	1.5	67
52	Nucleic Acids and Their Analogs as Nanomaterials for Biosensor Development. Current Nanoscience, 2006, 2, 257-273.	0.7	24
53	Instrument development to search for biomarkers on mars: Terrestrial acidophile, iron-powered chemolithoautotrophic communities as model systems. Planetary and Space Science, 2005, 53, 729-737.	0.9	77
54	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

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55	Structural and functional characterization of self-assembled monolayers of peptide nucleic acids and its interaction with complementary DNA. Journal of Molecular Catalysis A, 2005, 228, 131-136.	4.8	20
56	Self-Assembled Monolayers of Peptide Nucleic Acids on Gold Surfaces:Â A Spectroscopic Study. Langmuir, 2005, 21, 9510-9517.	1.6	54
57	Protein evolution in viral quasispecies under selective pressure: A thermodynamic and phylogenetic analysis. Gene, 2005, 347, 237-246.	1.0	6
58	Ordered SAMS of peptide nucleic acids on surfaces with DNA recognition capability. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c415-c415.	0.3	0
59	Functional Evolution of Ribosomes. , 2004, , 106-118.		0
60	Ordered Self-Assembled Monolayers of Peptide Nucleic Acids with DNA Recognition Capability. Physical Review Letters, 2004, 93, 208103.	2.9	42
61	Structural analysis of hepatitis C RNA genome using DNA microarrays. Nucleic Acids Research, 2004, 32, e90-e90.	6.5	16
62	Memory in Retroviral Quasispecies: Experimental Evidence and Theoretical Model for Human Immunodeficiency Virus. Journal of Molecular Biology, 2003, 331, 213-229.	2.0	52
63	Detection and Biological Implications of Genetic Memory in Viral Quasispecies. Developments in Cardiovascular Medicine, 2003, , 259-276.	0.1	4
64	Duration and fitness dependence of quasispecies memory. Journal of Molecular Biology, 2002, 315, 285-296.	2.0	74
65	Prevalence and Genetic Heterogeneity of the Reverse Transcriptase T69S-S-X Insertion in Pretreated HIV-Infected Patients. Intervirology, 2001, 44, 339-343.	1.2	10
66	Primary Genotypic and Phenotypic HIV-1 Drug Resistance in Recent Seroconverters in Madrid. Journal of Acquired Immune Deficiency Syndromes (1999), 2001, 26, 145-150.	0.9	62
67	Primary Genotypic and Phenotypic HIV-1 Drug Resistance in Recent Seroconverters in Madrid. Journal of Acquired Immune Deficiency Syndromes (1999), 2001, 26, 145-150.	0.9	35
68	Can Early Failure With Nevirapine Be Rescued With Efavirenz?. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 24, 76-78.	0.9	11
69	Can Early Failure With Nevirapine Be Rescued With Efavirenz?. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 24, 76-78.	0.9	12
70	Emergence of Zidovudine Resistance in HIV-Infected Patients Receiving Stavudine. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 23, 279-281.	0.9	9
71	Emergence of Zidovudine Resistance in HIV-Infected Patients Receiving Stavudine. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 23, 279-281.	0.9	18
72	Nucleotide Sequence of the 23S rRNA from Haloferax mediterranei and Phylogenetic Analysis of Halophilic Archaea Based on LSU rRNA. Systematic and Applied Microbiology, 2000, 23, 124-131.	1.2	8

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73	Role of a dipeptide insertion between codons 69 and 70 of HIV-1 reverse transcriptase in the mechanism of AZT resistance. EMBO Journal, 2000, 19, 5752-5761.	3.5	100
74	Conformational changes induced in the Saccharomyces cerevisiae GTPase-associated rRNA by ribosomal stalk components and a translocation inhibitor. Nucleic Acids Research, 2000, 28, 4497-4505.	6.5	8
75	Prevalence of genotypic resistance to nucleoside analogues and protease inhibitors in Spain. Aids, 2000, 14, 727-732.	1.0	53
76	Prevalence of Novel Lamivudine-Resistant Genotypes (E44D/A, V118I) in Naive and Pretreated HIV-Infected Individuals. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 25, 95-96.	0.9	6
77	Prevalence of Novel Lamivudine-Resistant Genotypes (E44D/A, V118I) in Naive and Pretreated HIV-Infected Individuals. Journal of Acquired Immune Deficiency Syndromes (1999), 2000, 25, 95-96.	0.9	8
78	Dynamics of dominance of a dipeptide insertion in reverse transcriptase of HIV-1 from patients subjected to prolonged therapy. Virus Research, 2000, 66, 13-26.	1.1	34
79	Hepatitis C virus genotypes in immigrants from equatorial guinea. Journal of Hepatology, 2000, 32, 189.	1.8	0
80	Prevalence of drug-resistant HIV-1 genotypes in heavily pre-treated patients on current virological failure. Aids, 2000, 14, 1659-1660.	1.0	5
81	Usefulness of Genotypic Analysis of Resistance to Nucleoside Analogues in the Clinical Setting. European Journal of Clinical Microbiology and Infectious Diseases, 1999, 18, 448-449.	1.3	3
82	Introduction of HIV drug-resistance testing in clinical practice. Aids, 1999, 13, 1007-1014.	1.0	62
83	Different outcome in the first two patients with an HIV-1 multinucleoside drug-resistant T69SSS insertion in Spain. Antiviral Therapy, 1999, 4, 125-7.	0.6	4
84	Different Outcome in the First Two Patients with an HIV-1 Multinucleoside Drug-Resistant T69SSS Insertion in Spain. Antiviral Therapy, 1999, 4, 125-127.	0.6	11
85	Functional phylogeny: the use of the sensitivity of ribosomes to protein synthesis inhibitors as a tool to study the evolution of organisms. Origins of Life and Evolution of Biospheres, 1998, 28, 571-582.	0.8	3
86	The GTPase Center Protein L12 Is Required for Correct Ribosomal Stalk Assembly but Not for Saccharomyces cerevisiaeViability. Journal of Biological Chemistry, 1998, 273, 31956-31961.	1.6	51
87	Iberian Pyrite Belt Subsurface Life (IPBSL), a Drilling Project of Biohydrometallurgical Interest. Advanced Materials Research, 0, 825, 15-18.	0.3	18