Francisco Montero

List of Publications by Year
in descending order

74 papers	1,638 citations	331670 21 h-index	302126 39 g-index
77 all docs	77 docs citations	77 times ranked	1421 citing authors

#	Article	IF	Citations
1	A SOM prototype-based cluster analysis methodology. Expert Systems With Applications, 2017, 88, 14-28.	7.6	34
2	Determinism and Contingency Shape Metabolic Complementation in an Endosymbiotic Consortium. Frontiers in Microbiology, 2017, 8, 2290.	3.5	5
3	Metabolic Complementation in Bacterial Communities: Necessary Conditions and Optimality. Frontiers in Microbiology, 2016, 7, 1553.	3.5	17
4	Nature lessons: The whitefly bacterial endosymbiont is a minimal amino acid factory with unusual energetics. Journal of Theoretical Biology, 2016, 407, 303-317.	1.7	8
5	Theories of Lethal Mutagenesis: From Error Catastrophe to Lethal Defection. Current Topics in Microbiology and Immunology, 2015, 392, 161-179.	1.1	18
6	Consistency Analysis of Genome-Scale Models of Bacterial Metabolism: A Metamodel Approach. PLoS ONE, 2015, 10, e0143626.	2.5	7
7	Simulating a Model of Metabolic Closure. Biological Theory, 2013, 8, 383-390.	1.5	24
8	Solving gap metabolites and blocked reactions in genome-scale models: application to the metabolic network of Blattabacterium cuenoti. BMC Systems Biology, 2013, 7, 114.	3.0	20
9	The Advantage of Arriving First: Characteristic Times in Finite Size Populations of Error-Prone Replicators. PLoS ONE, 2013, 8, e83142.	2.5	1
10	Viability Conditions for a Compartmentalized Protometabolic System: A Semi-Empirical Approach. PLoS ONE, 2012, 7, e39480.	2.5	23
11	Size matters: Influence of stochasticity on the self-maintenance of a simple model of metabolic closure. Journal of Theoretical Biology, 2012, 300, 143-151.	1.7	12
12	Characteristic time in quasispecies evolution. Journal of Theoretical Biology, 2012, 303, 25-32.	1.7	2
13	The relationship between the error catastrophe, survival of the flattest, and natural selection. BMC Evolutionary Biology, 2011, 11, 2.	3.2	22
14	Tools-4-Metatool (T4M): Online suite of web-tools to process stoichiometric network analysis data from Metatool. BioSystems, 2011, 105, 169-172.	2.0	7
15	Effect of lethality on the extinction and on the error threshold of quasispecies. Journal of Theoretical Biology, 2010, 262, 733-741.	1.7	20
16	A Simple Self-Maintaining Metabolic System: Robustness, Autocatalysis, Bistability. PLoS Computational Biology, 2010, 6, e1000872.	3.2	52
17	From prebiotic chemistry to cellular metabolismâ€"The chemical evolution of metabolism before Darwinian natural selection. Journal of Theoretical Biology, 2008, 252, 505-519.	1.7	40
18	Stoichiometric analysis of self-maintaining metabolisms. Journal of Theoretical Biology, 2008, 252, 427-432.	1.7	7

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19	Structural analyses of a hypothetical minimal metabolism. Philosophical Transactions of the Royal Society B: Biological Sciences, 2007, 362, 1751-1762.	4.0	39
20	Phenomenological Definition of Response Times with Application to Metabolic Reactions. Journal of Theoretical Biology, 2003, 221, 475-489.	1.7	1
21	Periodic Signal Transmission through Metabolic Pathways with Michaelian Kinetics. Journal of Physical Chemistry B, 2002, 106, 5536-5542.	2.6	3
22	Singlet Oxygen-Mediated DNA Photocleavage with Ru(II) Polypyridyl Complexes. Journal of Physical Chemistry B, 2002, 106, 4010-4017.	2.6	103
23	Equivalence of branched and unbranched Michaelian pathways concerning periodic signal transmission. Molecular Biology Reports, 2002, 29, 63-66.	2.3	0
24	Sequence distribution and intercooperativity detection for two ligands simultaneously binding to DNA. Biopolymers, 2001, 58, 562-576.	2.4	1
25	A Ruthenium Probe for Cell Viability Measurement Using Flow Cytometry, Confocal Microscopy and Time-resolved LuminescenceÂ¶. Photochemistry and Photobiology, 2000, 72, 28.	2.5	42
26	A Ruthenium Probe for Cell Viability Measurement Using Flow Cytometry, Confocal Microscopy and Time-resolved Luminescence Â¶. Photochemistry and Photobiology, 2000, 72, 28-34.	2.5	2
27	The structural design of glycolysis: an evolutionary approach. Biochemical Society Transactions, 1999, 27, 294-298.	3.4	19
28	Optimization of glycolysis: new discussions. Biochemical Education, 1999, 27, 12-13.	0.1	29
29	Generalization of the Theory of Transition Times in Metabolic Pathways: A Geometrical Approach. Biophysical Journal, 1999, 77, 23-36.	0.5	44
30	METATOOL: for studying metabolic networks. Bioinformatics, 1999, 15, 251-257.	4.1	337
31	Transient times in linear metabolic pathways under constant affinity constraints. Biochemical Journal, 1997, 327, 493-498.	3.7	1
32	Network organization of cell metabolism: monosaccharide interconversion. Biochemical Journal, 1997, 324, 103-111.	3.7	28
33	Theoretical Approaches to the Evolutionary Optimization of Glycolysis. Thermodynamic and Kinetic Constraints. FEBS Journal, 1997, 243, 191-201.	0.2	70
34	Theoretical Approaches to the Evolutionary Optimization of Glycolysis. Chemical Analysis. FEBS Journal, 1997, 244, 527-543.	0.2	72
35	Stoichiometric properties of the non oxidative phase of the pentose phosphate cycle. Nonlinear Analysis: Theory, Methods & Applications, 1997, 30, 1865-1874.	1.1	2
36	Kinetic and thermodynamic constraints for the structural design of glycolysis. Nonlinear Analysis: Theory, Methods & Applications, 1997, 30, 1793-1804.	1.1	2

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37	Optimization of glycolysis: A new look at the efficiency of energy coupling. Biochemical Education, 1997, 25, 204-205.	0.1	34
38	The Metabolic Productivity of the Cell Factory. Journal of Theoretical Biology, 1996, 182, 317-325.	1.7	21
39	Interaction with DNA of Photoactive Viologens Based on the 6-(2-Pyridinium)phenanthridinium Structure. Journal of Biomolecular Structure and Dynamics, 1995, 12, 827-846.	3.5	14
40	Stereospecific DNA Binding of Luminescent Atropisomeric Viologens. Biochemical and Biophysical Research Communications, 1995, 214, 716-722.	2.1	6
41	DNA photocleavage by novel intercalating 6-(2-pyridinium)phenanthridinium viologens. FEBS Letters, 1995, 374, 426-428.	2.8	11
42	Optimization of Metabolism: The Evolution of Metabolic Pathways Toward Simplicity Through the Game of the Pentose Phosphate Cycle. Journal of Theoretical Biology, 1994, 166, 201-220.	1.7	54
43	Influence of External Fluctuations on a Hypercycle Formed by Two Kinetically Indistinguishable Species. Journal of Theoretical Biology, 1993, 165, 553-575.	1.7	15
44	Complex dynamics of a catalytic network having faulty replication into error-species. Physica D: Nonlinear Phenomena, 1993, 63, 21-40.	2.8	29
45	A model of an autocatalytic network formed by error-prone self-replicative species. Bulletin of Mathematical Biology, 1993, 55, 385-415.	1.9	20
46	Thermal denaturation profiles of deoxypolynucleotide-destabilizer ligand complexes: Semiempirical studies. Archives of Biochemistry and Biophysics, 1991, 290, 133-142.	3.0	3
47	Cooperative interaction of the C-terminal domain of histone H1 with DNA. Biophysical Chemistry, 1991, 39, 145-152.	2.8	19
48	Study of an error-prone hypercycle formed from two kinetically distinguishable species. Biophysical Chemistry, 1991, 40, 43-57.	2.8	6
49	Channelling and evolution of metabolism. Journal of Theoretical Biology, 1991, 152, 77-79.	1.7	3
50	Kinetic analysis of Ï^-DNA structure formation induced by histone H1 and its C-terminal domain. Biophysical Chemistry, 1989, 33, 133-141.	2.8	3
51	Thermal denaturation profiles of deoxypolynucleotide-ligand complexes: Semiempirical studies. Archives of Biochemistry and Biophysics, 1989, 268, 426-437.	3.0	1
52	Transition state of the glycolytic pathway under fdp saturating conditions: Experimental studies and a theoretical model. International Journal of Biochemistry & Cell Biology, 1988, 20, 421-426.	0.5	1
53	A necessary and sufficient condition for the existence of Orlovsky's choice set. Fuzzy Sets and Systems, 1988, 26, 121-125.	2.7	30
54	Influence of the hypercycle on the error threshold: A stochastic approach. Journal of Theoretical Biology, 1988, 134, 431-443.	1.7	18

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55	Interaction of the c-terminal domain of the histone H1 with DNA. Biochemical Pharmacology, 1988, 37, 1841-1842.	4.4	0
56	Studies on evolutionary and selective properties of hypercycles using a Monte Carlo method. Journal of Molecular Evolution, 1987, 26, 294-300.	1.8	11
57	Influence of the hypercyclic organization on the error threshold. Journal of Theoretical Biology, 1987, 127, 393-402.	1.7	17
58	Interactions of the high-mobility-group-like Ceratitis capitata C1 proteins with DNA. FEBS Journal, 1987, 165, 309-314.	0.2	0
59	Compositional and structural studies of a fraction of the fruit fly Ceratitis capitata mononucleosomes, highly enriched in non-histone proteins. International Journal of Biochemistry & Cell Biology, 1986, 18, 901-908.	0.5	1
60	Modification of the lysine residues of histones H1 and H5: Effects on structure and on the binding to chromatin. Molecular Biology Reports, 1985, 10, 147-151.	2.3	1
61	Condensation of DNA by the C-terminal domain of histone H1 A circular dichroism study. Biophysical Chemistry, 1985, 22, 125-129.	2.8	42
62	Aggregation of the histone h1 from the fruit fly Ceratitis capitata through disulphide bridges. Studies on their complexes with DNA. International Journal of Biochemistry & Cell Biology, 1985, 17, 665-675.	0.5	1
63	An algorithm to study the evolution and selection of auto replicative molecules. Computers & Chemistry, 1984, 8, 303-307.	1.2	3
64	Effects of sodium dodecyl sulfate on the structure of histones H1. The Protein Journal, 1984, 3, 455-463.	1.1	6
65	Contribution of histones H2A and H2B to the folding of nucleosomal DNA. Biochemistry, 1984, 23, 4285-4289.	2.5	10
66	Rearrangement of nucleosomal components by modification of histone amino groups. Structural role of lysine residues. Biochemistry, 1984, 23, 4280-4284.	2.5	14
67	Relaxation of chromatin structure upon removal of histones H2A and H2B. FEBS Letters, 1984, 172, 70-74.	2.8	3
68	Dissociation of single-stranded DNA from nucleosomes following modification with acetic anhydride. Biochemical and Biophysical Research Communications, 1984, 121, 907-914.	2.1	4
69	High mobility group non-histone chromosomal proteins from the fruit fly Ceratitis capitata. Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1982, 72, 531-535.	0.2	1
70	Influence of the N- and C-terminal tails on the structure of the globular head of histone H1. Biochemical and Biophysical Research Communications, 1982, 107, 842-847.	2.1	8
71	C1 Proteins: a Class of High-Mobility-Group Non-histone Chromosomal Proteins from the Fruit Fly Ceratitis capitata. FEBS Journal, 1982, 123, 165-170.	0.2	16
72	Structural studies on histones H1. Circular dichroism and difference spectroscopy of the histones H1 and their trypsin-resistant cores from calf thymus and from the fruit fly Ceratitis capitata. Biochemistry, 1980, 19, 4080-4087.	2.5	45

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73	Purification of the histone H1 from the fruit flyCeratitis capitata. FEBS Letters, 1977, 78, 317-320.	2.8	38
74	Histones from the Fruit Fly Ceratitis capitata. Isolation and Characterization. FEBS Journal, 1974, 48, 53-61.	0.2	15