Luis R Cruz Cruz

List of Publications by Year
in descending order

48	2,922	304743	223800
papers	citations	22 h-index	46 g-index

49	49	49	3151
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In silico study of amyloid Â-protein folding and oligomerization. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17345-17350.	7.1	327
2	Elucidation of Amyloid Î²-Protein Oligomerization Mechanisms: Discrete Molecular Dynamics Study. Journal of the American Chemical Society, 2010, 132, 4266-4280.	13.7	231
3	Plaque-induced neurite abnormalities: Implications for disruption of neural networks in Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 5274-5279.	7.1	216
4	Neurotoxic effects of thioflavin S-positive amyloid deposits in transgenic mice and Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 13990-13995.	7.1	213
5	Elucidating Amyloid Î²-Protein Folding and Assembly:â€‰ A Multidisciplinary Approach. Accounts of Chemical Research, 2006, 39, 635-645.	15.6	203
6	Molecular Dynamics Simulation of Amyloid Î² Dimer Formation. Biophysical Journal, 2004, 87, 2310-2321.	0.5	194
7	Preservation of Neuronal Number Despite Age-Related Cortical Brain Atrophy in Elderly Subjects Without Alzheimer Disease. Journal of Neuropathology and Experimental Neurology, 2008, 67, 1205-1212.	1.7	164
8	C-terminal peptides coassemble into AÎ²42 oligomers and protect neurons against AÎ²42-induced neurotoxicity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 14175-14180.	7.1	159
9	Solvent and mutation effects on the nucleation of amyloid Â-protein folding. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18258-18263.	7.1	113
10	Aggregation and disaggregation of senile plaques in Alzheimer disease. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 7612-7616.	7.1	110
11	Granular-rod model for electronic conduction in polyaniline. Physical Review B, 1993, 47, 1840-1845.	3.2	98
12	Description of microcolumnar ensembles in association cortex and their disruption in Alzheimer and Lewy body dementias. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 5039-5043.	7.1	96
13	Plaque-Induced Abnormalities in Neurite Geometry in Transgenic Models of Alzheimer Disease: Implications for Neural System Disruption. Journal of Neuropathology and Experimental Neurology, 2001, 60, 753-758.	1.7	88
14	Force-Field Induced Bias in the Structure of AÎ²_{21â€“30}: A Comparison of OPLS, AMBER, CHARMM, and GROMOS Force Fields. Journal of Chemical Information and Modeling, 2015, 55, 2587-2595.	5.4	82
15	Discrete molecular dynamics simulations of peptide aggregation. Physical Review E, 2004, 69, 041908.	2.1	74
16	Ab initio Discrete Molecular Dynamics Approach to Protein Folding and Aggregation. Methods in Enzymology, 2006, 412, 314-338.	1.0	65
17	Dynamics of Plaque Formation in Alzheimer's Disease. Biophysical Journal, 1999, 76, 1330-1334.	0.5	60
18	Cooperative molecular motions in water: The liquid-liquid critical point hypothesis. Physica A: Statistical Mechanics and Its Applications, 1997, 236, 19-37.	2.6	39

#	Article	IF	Citations
19	Age-related reduction in microcolumnar structure in area 46 of the rhesus monkey correlates with behavioral decline. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15846-15851.	7.1	38
20	Computer Simulations of Alzheimers Amyloid β-Protein Folding and Assembly. Current Alzheimer Research, 2006, 3, 493-504.	1.4	36
21	Dynamics of Metastable Î²-Hairpin Structures in the Folding Nucleus of Amyloid Î²-Protein. Journal of Physical Chemistry B, 2012, 116, 6311-6325.	2.6	28
22	A statistically based density map method for identification and quantification of regional differences in microcolumnarity in the monkey brain. Journal of Neuroscience Methods, 2005, 141, 321-332.	2.5	27
23	Age-related reduction in microcolumnar structure correlates with cognitive decline in ventral but not dorsal area 46 of the rhesus monkey. Neuroscience, 2009, 158, 1509-1520.	2.3	23
24	Role of Cholesterol on Binding of Amyloid Fibrils to Lipid Bilayers. Journal of Physical Chemistry B, 2020, 124, 3036-3042.	2.6	21
25	Multiple-scattering theories including correlation effects to obtain the effective dielectric constant of nonhomogeneous thin films. Physical Review B, 1985, 32, 3429-3441.	3.2	20
26	Dynamic feedback in an aggregation-disaggregation model. Physical Review E, 1999, 60, 2120-2126.	2.1	20
27	Effect of Ionic Aqueous Environments on the Structure and Dynamics of the AÎ²_{21â€“30} Fragment: A Molecular-Dynamics Study. Journal of Physical Chemistry B, 2013, 117, 6614-6624.	2.6	18
28	Automated identification of neurons and their locations. Journal of Microscopy, 2008, 230, 339-352.	1.8	16
29	Neuron recognition by parallel Potts segmentation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3847-3852.	7.1	15
30	Effects of Confinement on the Structure and Dynamics of an Intrinsically Disordered Peptide: A Molecular-Dynamics Study. Journal of Physical Chemistry B, 2013, 117, 3707-3719.	2.6	15
31	Statistical physics and Alzheimerâ€™s disease. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 460-471.	2.6	13
32	T-matrix approach for the calculation of local fields in the neighborhood of small clusters in the electrodynamic regime. Physical Review B, 1989, 40, 7491-7500.	3.2	10
33	Changes to the Structure and Dynamics in Mutations of AÎ²21â€“30 Caused by Ions in Solution. Journal of Physical Chemistry B, 2013, 117, 14907-14915.	2.6	10
34	Columnar grouping preserves synchronization in neuronal networks with distance-dependent time delays. Physical Review E, 2020, 101, 022408.	2.1	10
35	Generating a model of the three-dimensional spatial distribution of neurons using density maps. NeuroImage, 2008, 40, 1105-1115.	4.2	9
36	The Stability of a Î²-Hairpin Is Altered by Surfaceâ€“Water Interactions under Confinement. Journal of Physical Chemistry B, 2014, 118, 3517-3523.	2.6	9

#	Article	IF	Citations
37	Phase diagram for strongly correlated dopedtrans-polyacetylene chains. Physical Review B, 1994, 49, 5149-5156.	3.2	8
38	T-matrix approach for calculating local fields around clusters of rotated spheroids. Applied Optics, 1993, 32, 2164.	2.1	7
39	Kondo Resonance and log T Conductivity in Highly Conducting Trans-Polyacetylene. Europhysics Letters, 1995, 29, 389-394.	2.0	7
40	Spontaneous dimer states of the AÎ²21â€“30decapeptide. Physical Chemistry Chemical Physics, 2014, 16, 13069-13073.	2.8	7
41	Dimer and rods in the conducting state of polyaniline. Synthetic Metals, 1993, 57, 4697-4703.	3.9	6
42	Order parameter and segregated phases in a sandpile model with two particle sizes. Physical Review E, 1997, 56, 1571-1579.	2.1	5
43	Calculation of the aggregation and electrodynamic effects in granular systems. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 123-130.	2.6	4
44	A Computational Model for the Loss of Neuronal Organization in Microcolumns. Biophysical Journal, 2014, 106, 2233-2242.	0.5	4
45	Metallic polyacetylene is a soliton lattice. Synthetic Metals, 1994, 65, 225-232.	3.9	2
46	Traveling Waves in Quasi-One-Dimensional Neuronal Minicolumns. Neural Computation, 2021, , 1-26.	2.2	2
47	Calculation of Local Fields for Clusters of Ellipsoids Within the T-Katrix Approach. Materials Research Society Symposia Proceedings, 1990, 195, 109.	0.1	0
48	Effect of Confinement on the Folding Dynamics of Amyloid-Beta (21-30) Protein: A Molecular Dynamics Study. Biophysical Journal, 2011, 100, 399a.	0.5	0