Miguel Fuentes-Cabrera

List of Publications by Year
in descending order

77	2,144	218677	243625
papers	citations	26 h-index	44 g-index

81	81	81	2887
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Atomic Edge-Guided Polyethylene Crystallization on Monolayer Two-Dimensional Materials. Macromolecules, 2022, 55, 559-567.	4.8	6
2	The Role of Phase Separation on Rayleigh-Plateau Type Instabilities in Alloys. Journal of Physical Chemistry C, 2021, 125, 5723-5731.	3.1	4
3	Application of Machine Learning Techniques to an Agent-Based Model of Pantoea. Frontiers in Microbiology, 2021, 12, 726409.	3.5	5
4	Visualizing in Vivo Dynamics of Designer Nanoscaffolds. Nano Letters, 2020, 20, 208-217.	9.1	9
5	Self-Propulsion Enhances Polymerization. Entropy, 2020, 22, 251.	2.2	3
6	Large Enantiospecificity of Stepâ€“kink Metal Surfaces: Contributions from the Backbone and Side Chain of Î±-Amino Acids. Journal of Physical Chemistry C, 2020, 124, 742-748.	3.1	5
7	Surface, Interface, and Temperature Effects on the Phase Separation and Nanoparticle Self Assembly of Bi-Metallic Ni0.5Ag0.5: A Molecular Dynamics Study. Nanomaterials, 2019, 9, 1040.	4.1	7
8	External strain-enhanced cysteine enantiomeric separation ability on alloyed stepped surfaces. Journal of Chemical Physics, 2019, 150, 154701.	3.0	4
9	Heterohexamers Formed by CcmK3 and CcmK4 Increase the Complexity of Beta Carboxysome Shells. Plant Physiology, 2019, 179, 156-167.	4.8	61
10	Direct atomic fabrication and dopant positioning in Si using electron beams with active real-time image-based feedback. Nanotechnology, 2018, 29, 255303.	2.6	46
11	Theoretical and experimental evidence of conformational transformation in stereoisomers of nucleoside analogues. International Journal of Quantum Chemistry, 2018, 118, e25714.	2.0	0
12	Ultrahigh Conductivity in Two-Dimensional InSe via Remote Doping at Room Temperature. Journal of Physical Chemistry Letters, 2018, 9, 3897-3903.	4.6	23
13	Self-assembly directed one-step synthesis of [4]radialene on Cu(100) surfaces. Nature Communications, 2018, 9, 3113.	12.8	41
14	A Microfluidics and Agent-Based Modeling Framework for Investigating Spatial Organization in Bacterial Colonies: The Case of Pseudomonas Aeruginosa and H1-Type VI Secretion Interactions. Frontiers in Microbiology, 2018, 9, 33.	3.5	30
15	Principles of Design for Substrate-Supported Molecular Switches Based on Physisorbed and Chemisorbed States. ACS Applied Materials & Interfaces, 2018, 10, 26772-26780.	8.0	15
16	Enhancing Enantiomeric Separation with Strain: The Case of Serine on Cu(531). Journal of the American Chemical Society, 2017, 139, 8167-8173.	13.7	12
17	Isomeric effects on the self-assembly of a plausible prebiotic nucleoside analogue: A theoretical study. International Journal of Quantum Chemistry, 2017, 117, 213-221.	2.0	2
18	Engineering the Bacterial Microcompartment Domain for Molecular Scaffolding Applications. Frontiers in Microbiology, 2017, 8, 1441.	3.5	57

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19	Supramolecular polymerization of a prebiotic nucleoside provides insights into the creation of sequence-controlled polymers. Scientific Reports, 2016, 6, 18891.	3.3	5
20	Theoretical Study of the Initial Stages of Self-Assembly of a Carboxysomeâ€™s Facet. ACS Nano, 2016, 10, 5751-5758.	14.6	19
21	Patterning: Atomicâ€Level Sculpting of Crystalline Oxides: Toward Bulk Nanofabrication with Single Atomic Plane Precision (Small 44/2015). Small, 2015, 11, 5854-5854.	10.0	2
22	Atomicâ€Level Sculpting of Crystalline Oxides: Toward Bulk Nanofabrication with Single Atomic Plane Precision. Small, 2015, 11, 5895-5900.	10.0	73
23	Extrapolating Dynamic Leidenfrost Principles to Metallic Nanodroplets on Asymmetrically Textured Surfaces. Scientific Reports, 2015, 5, 11769.	3.3	5
24	Coexistence of spinodal instability and thermal nucleation in thin-film rupture: Insights from molecular levels. Physical Review E, 2014, 89, 032403.	2.1	18
25	Dynamic Defrosting on Nanostructured Superhydrophobic Surfaces. Langmuir, 2013, 29, 9516-9524.	3.5	158
26	Dynamical Treatment of Charge Transfer through Duplex Nucleic Acids Containing Modified Adenines. ACS Nano, 2013, 7, 9396-9406.	14.6	8
27	Iron Particle Nanodrilling of Few Layer Graphene at Low Electron Beam Accelerating Voltages. Particle and Particle Systems Characterization, 2013, 30, 76-82.	2.3	9
28	Nanodrilling: Iron Particle Nanodrilling of Few Layer Graphene at Low Electron Beam Accelerating Voltages (Part. Part. Syst. Charact. 1/2013). Particle and Particle Systems Characterization, 2013, 30, 75-75.	2.3	0
29	Self-Organized and Cu-Coordinated Surface Linear Polymerization. Scientific Reports, 2013, 3, 2102.	3.3	23
30	An Evaluation of Molecular Dynamics Performance on the Hybrid Cray XK6 Supercomputer. Procedia Computer Science, 2012, 9, 186-195.	2.0	24
31	Competition between Collapse and Breakup in Nanometer-Sized Thin Rings Using Molecular Dynamics and Continuum Modeling. Langmuir, 2012, 28, 13960-13967.	3.5	25
32	Electronic Control over Attachment and Self-Assembly of Alkyne Groups on Gold. ACS Nano, 2012, 6, 9267-9275.	14.6	25
33	Supramolecular Self-Assembly of Ï€-Conjugated Hydrocarbons via 2D Cooperative CH/Ï€ Interaction. ACS Nano, 2012, 6, 566-572.	14.6	63
34	Formamide-Based Prebiotic Synthesis of Nucleobases: A Kinetically Accessible Reaction Route. Journal of Physical Chemistry A, 2012, 116, 720-726.	2.5	44
35	Advancing Understanding and Design of Functional Materials Through Theoretical and Computational Chemical Physics. , 2012, , 209-278.		3
36	Signatures of the Rayleighâ€Plateau Instability Revealed by Imposing Synthetic Perturbations on Nanometerâ€Sized Liquid Metals on Substrates. Angewandte Chemie - International Edition, 2012, 51, 8768-8772.	13.8	16

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37	Molecular simulations of adsorption of RDX and TATP on IRMOF-1(Be). Journal of Molecular Modeling, 2012, 18, 3363-3378.	1.8	11
38	Theoretical modeling on the kinetics of the arsenate-ester hydrolysis: implications to the stability of As-DNA. Physical Chemistry Chemical Physics, 2011, 13, 10869.	2.8	9
39	On the Geometry and Electronic Structure of the As-DNA Backbone. Journal of Physical Chemistry Letters, 2011, 2, 389-392.	4.6	9
40	Molecular dynamics study of the dewetting of copper on graphite and graphene: Implications for nanoscale self-assembly. Physical Review E, 2011, 83, 041603.	2.1	68
41	Structural, Dynamical, and Electronic Transport Properties of Modified DNA Duplexes Containing Size-Expanded Nucleobases. Journal of Physical Chemistry A, 2011, 115, 11344-11354.	2.5	16
42	On the Stabilization of Ribose by Silicate Minerals. Astrobiology, 2011, 11, 115-121.	3.0	23
43	Controlling the Velocity of Jumping Nanodroplets Via Their Initial Shape and Temperature. ACS Nano, 2011, 5, 7130-7136.	14.6	29
44	Prebiotic Routes to Nucleosides: A Quantum Chemical Insight into the Energetics of the Multistep Reaction Pathways. Chemistry - A European Journal, 2011, 17, 847-854.	3.3	29
45	Theoretical Studies on the Intermolecular Interactions of Potentially Primordial Baseâ€Pair Analogues. Chemistry - A European Journal, 2010, 16, 3057-3065.	3.3	13
46	Evaluation of functionalized isoreticular metal organic frameworks (IRMOFs) as smart nanoporous preconcentrators of RDX. Sensors and Actuators B: Chemical, 2010, 148, 459-468.	7.8	38
47	Nonlinear pressure dependence of the direct band gap in adamantine ordered-vacancy compounds. Physical Review B, 2010, 81, .	3.2	27
48	Reactive solid-state dewetting of Cuâ€“Ni films on silicon. Applied Physics Letters, 2010, 97, 253101.	3.3	14
49	Effect of Charge Distribution on RDX Adsorption in IRMOF-10. Langmuir, 2010, 26, 5942-5950.	3.5	27
50	Ab initio Study of the Structural, Tautomeric, Pairing, and Electronic Properties of Seleno-Derivatives of Thymine. Journal of Physical Chemistry B, 2009, 113, 14465-14472.	2.6	15
51	Molecular simulations of adsorption and diffusion of RDX in IRMOF-1. Molecular Simulation, 2009, 35, 910-919.	2.0	28
52	Theoretical Study on the Factors Controlling the Stability of the Borate Complexes of Ribose, Arabinose, Lyxose, and Xylose. Chemistry - A European Journal, 2008, 14, 9990-9998.	3.3	34
53	Ab Initio Study of Naphtho-Homologated DNA Bases. Journal of Physical Chemistry B, 2008, 112, 2179-2186.	2.6	23
54	Bridge structure for the graphene/Ni(111) system: A first principles study. Physical Review B, 2008, 77, .	3.2	158

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55	Reply to â€œComment on â€˜Characterization of the tunneling conductance across DNA basesâ€™ â€. Physical Review E, 2007, 76, 013902.	2.1	7
56	Toward Electronic Conductance Characterization of DNA Nucleotide Bases. Solid State Phenomena, 2007, 121-123, 1387-1390.	0.3	6
57	Benzo-homologated nucleobases in a nanotube-electrode set-up for DNA sequencing. Nanotechnology, 2007, 18, 424019.	2.6	8
58	Electronic Structure of xDNA. Journal of Physical Chemistry B, 2007, 111, 9057-9061.	2.6	31
59	Theoretical Study on the Structure, Stability, and Electronic Properties of the Guanineâˆ’Znâˆ’Cytosine Base Pair in M-DNA. Journal of Physical Chemistry B, 2007, 111, 870-879.	2.6	55
60	Energetics of hydrogen storage in organolithium nanostructures. Chemical Physics Letters, 2007, 436, 150-154.	2.6	8
61	Local Aromaticity in Natural Nucleobases and Their Size-Expanded Benzo-Fused Derivatives. Journal of Physical Chemistry A, 2006, 110, 12249-12258.	2.5	52
62	First-Principles Transversal DNA Conductance Deconstructed. Biophysical Journal, 2006, 91, L04-L06.	0.5	51
63	Size-Expanded yDNA Bases:Â An Ab Initio Study. Journal of Physical Chemistry B, 2006, 110, 6379-6384.	2.6	49
64	Characterization of the tunneling conductance across DNA bases. Physical Review E, 2006, 74, 011919.	2.1	58
65	Aromaticity-induced changes in electronic properties of size-expanded DNA bases: Case of xC. International Journal of Quantum Chemistry, 2006, 106, 2339-2346.	2.0	17
66	Size-Expanded DNA Bases:Â An Ab Initio Study of Their Structural and Electronic Properties. Journal of Physical Chemistry B, 2005, 109, 21135-21139.	2.6	64
67	Electronic structure and properties of isoreticular metal-organic frameworks: The case of M-IRMOF1 (M=Zn, Cd, Be, Mg, and Ca). Journal of Chemical Physics, 2005, 123, 124713.	3.0	147
68	Molecular dynamics simulations of the d(CCAACGTTGG)2 decamer in crystal environment: Comparison of atomic point-charge, extra-point, and polarizable force fields. Journal of Chemical Physics, 2004, 121, 6998-7008.	3.0	36
69	Ab-initio Study of the Diffusion Coefficients in Fe-based Liquids. Materials Research Society Symposia Proceedings, 2003, 806, 155.	0.1	1
70	Electronic states of prototype supertetrahedral framework materials. Physical Review B, 2002, 66, .	3.2	3
71	Electronic and Structural High Pressure Properties of CuGaS 2 Chalcopyrite Semiconductor. High Pressure Research, 2002, 22, 361-364.	1.2	0
72	Phase stability and pressure-induced semiconductor to metal transition in crystalline GeSe2. Journal of Physics Condensed Matter, 2002, 14, 9589-9600.	1.8	13

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73	Ab initiostudy of the vibrational and electronic properties of CdGa2S4and CdGa2Se4under pressure. Journal of Physics Condensed Matter, 2001, 13, 10117-10124.	1.8	23
74	Theoretical study of the ordered-vacancy semiconducting compound CdAl2Se4. Journal of Physics Condensed Matter, 2001, 13, 1669-1684.	1.8	26
75	Theoretical study of the structural, electronic and vibrational properties of CdIn2Te4. Thin Solid Films, 2000, 373, 19-22.	1.8	9
76	Theoretical study of graphitic analogues of simple semiconductors. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 929-938.	2.0	13
77	The application of approximate density functionals to complex systems. International Journal of Quantum Chemistry, 1998, 69, 327-340.	2.0	46