Andres Jaramillo-Botero

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8542790/publications.pdf

Version: 2024-02-01

45 papers	1,107 citations	471509 17 h-index	414414 32 g-index
46 all docs	46 docs citations	46 times ranked	1645 citing authors

#	Article	IF	Citations
1	Performance of electrochemical immunoassays for clinical diagnostics of SARS-CoV-2 based on selective nucleocapsid N protein detection: Boron-doped diamond, gold and glassy carbon evaluation. Biosensors and Bioelectronics, 2022, 209, 114222.	10.1	23
2	Electrochemical modified electrode with bismuth film for ultrasensitive determination of aluminum (iii). Journal of Electroanalytical Chemistry, 2022, 919, 116552.	3.8	6
3	Coarse-grained force-field for large scale molecular dynamics simulations of polyacrylamide and polyacrylamide-gels based on quantum mechanics. Physical Chemistry Chemical Physics, 2021, 23, 10909-10918.	2.8	3
4	Understanding Hypervelocity Sampling of Biosignatures in Space Missions. Astrobiology, 2021, 21, 421-442.	3.0	31
5	Four-terminal graphene nanoribbon sensor devices: In-silico design and characterization. Computational Materials Science, 2021, 196, 110506.	3.0	0
6	Interfacial Interactions in a Model Composite Material: Insights into Î± â†' Î² Phase Transition of the Magnetite Reinforced Poly(Vinylidene Fluoride) Systems by All-Atom Molecular Dynamics Simulation. Journal of Physical Chemistry C, 2021, 125, 21635-21644.	3.1	11
7	Reviewâ€"Bio-Nanosensors: Fundamentals and Recent Applications. Journal of the Electrochemical Society, 2021, 168, 107506.	2.9	14
8	Understanding the Origin of Enhanced Piezoelectric Response in PVDF Matrices with Embedded ZnO Nanoparticles, from Polarizable Molecular Dynamics Simulations. Journal of Chemical Information and Modeling, 2021, 61, 4537-4543.	5.4	7
9	ZnO/PDMS nanocomposite generator: Interphase influence in the nanocomposite electro-mechanical properties and output voltage. Energy Reports, 2021, 7, 896-903.	5.1	10
10	SenSARS: A Low-Cost Portable Electrochemical System for Ultra-Sensitive, Near Real-Time, Diagnostics of SARS-CoV-2 Infections. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	15
11	A novel NIR-image segmentation method for the precise estimation of above-ground biomass in rice crops. PLoS ONE, 2020, 15, e0239591.	2.5	13
12	Estimation of Nitrogen in Rice Crops from UAV-Captured Images. Remote Sensing, 2020, 12, 3396.	4.0	23
13	Effect of surface oxidation on the electronic transport properties of phosphorene gas sensors: a computational study. RSC Advances, 2020, 10, 6893-6899.	3.6	8
14	First principles-based multiscale atomistic methods for input into first principles nonequilibrium transport across interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18193-18201.	7.1	7
15	Partially-oxidized phosphorene sensor for the detection of sub-nano molar concentrations of nitric oxide: a first-principles study. Physical Chemistry Chemical Physics, 2019, 21, 19083-19091.	2.8	6
16	Ligand-Modified Boron-Doped Diamond Surface: DFT Insights into the Electronic Properties of Biofunctionalization. Materials, 2019, 12, 2910.	2.9	4
17	All-Armchair Graphene Nanoribbon Field-Effect Uridine Diphosphate Glucose Sensor: First-Principles In-Silico Design and Characterization. IEEE Sensors Journal, 2019, 19, 3975-3983.	4.7	14
18	Predicted detonation properties at the Chapmanâ€"Jouguet state for proposed energetic materials (MTO) Tj ETQq0 0 0 rgBT /Overlock 1 Chemical Physics, 2018, 20, 3953-3969.	2.8	21

#	Article	IF	Citations
19	Thermodynamic Simulation of the RDXâ€“Aluminum Interface Using ReaxFF Molecular Dynamics. Journal of Physical Chemistry C, 2017, 121, 14597-14610.	3.1	46
20	Reactive Molecular Dynamics Simulations to Understand Mechanical Response of Thaumasite under Temperature and Strain Rate Effects. Journal of Physical Chemistry A, 2017, 121, 4688-4697.	2.5	10
21	A rapid-response ultrasensitive biosensor for influenza virus detection using antibody modified boron-doped diamond. Scientific Reports, 2017, 7, 15707.	3.3	107
22	The Mass Analyzer for Real-time Investigation of Neutrals at Europa (MARINE). , 2015, , .		3
23	Reaction Pathways of GaN (0001) Growth from Trimethylgallium and Ammonia versus Triethylgallium and Hydrazine Using First Principle Calculations. Journal of Physical Chemistry C, 2015, 119, 4095-4103.	3.1	24
24	The atomistic origin of the extraordinary oxygen reduction activity of Pt₃Ni₇fuel cell catalysts. Chemical Science, 2015, 6, 3915-3925.	7.4	53
25	Non-adiabatic dynamics modeling framework for materials in extreme conditions. Mechanics of Materials, 2015, 90, 243-252.	3.2	10
26	Ultraviolet surface plasmon-mediated low temperature hydrazine decomposition. Applied Physics Letters, 2015, 106, .	3.3	11
27	General Multiobjective Force Field Optimization Framework, with Application to Reactive Force Fields for Silicon Carbide. Journal of Chemical Theory and Computation, 2014, 10, 1426-1439.	5.3	107
28	CCl Radicals As a Carbon Source for Diamond Thin Film Deposition. Journal of Physical Chemistry Letters, 2014, 5, 481-484.	4.6	5
29	Adaptive Accelerated ReaxFF Reactive Dynamics with Validation from Simulating Hydrogen Combustion. Journal of the American Chemical Society, 2014, 136, 9434-9442.	13.7	53
30	Large-scale Molecular Simulations of Hypervelocity Impact of Materials. Procedia Engineering, 2013, 58, 167-176.	1.2	9
31	Highly Shocked Polymer Bonded Explosives at a Nonplanar Interface: Hot-Spot Formation Leading to Detonation. Journal of Physical Chemistry C, 2013, 117, 26551-26561.	3.1	83
32	Hypervelocity Impact Effect of Molecules from Enceladusâ€™ Plume and Titanâ€™s Upper Atmosphere on NASAâ€™s Cassini Spectrometer from Reactive Dynamics Simulation. Physical Review Letters, 2012, 109, 213201.	7.8	23
33	Multiscale, Multiparadigm Modeling for Nanosystems Characterization and Design. The Electrical Engineering Handbook, 2012, , 935-982.	0.2	0
34	Nonadiabatic Study of Dynamic Electronic Effects during Brittle Fracture of Silicon. Physical Review Letters, 2012, 108, 045501.	7.8	28
35	Development of a ReaxFF Reactive Force Field for Ettringite and Study of its Mechanical Failure Modes from Reactive Dynamics Simulations. Journal of Physical Chemistry A, 2012, 116, 3918-3925.	2.5	79
36	Electron dynamics of shocked polyethylene crystal. Physical Review B, 2012, 85, .	3.2	13

#	Article	IF	Citations
37	Predicted Optimum Composition for the Glass-Forming Ability of Bulk Amorphous Alloys: Application to Cuâ€“Zrâ€“Al. Journal of Physical Chemistry Letters, 2012, 3, 3143-3148.	4.6	33
38	First-Principles-Based Multiscale, Multiparadigm Molecular Mechanics and Dynamics Methods for Describing Complex Chemical Processes. Topics in Current Chemistry, 2011, 307, 1-42.	4.0	9
39	Elucidation of the dynamics for hot-spot initiation at nonuniform interfaces of highly shocked materials. Physical Review B, 2011, 84, .	3.2	85
40	Largeâ€scale, longâ€term nonadiabatic electron molecular dynamics for describing material properties and phenomena in extreme environments. Journal of Computational Chemistry, 2011, 32, 497-512.	3.3	43
41	First-Principles Based Approaches to Nano-Mechanical and Biomimetic Characterization of Polymer-Based Hydrogel Networks for Cartilage Scaffold-Supported Therapies. Journal of Computational and Theoretical Nanoscience, 2010, 7, 1238-1256.	0.4	15
42	ROBOMOSP. IEEE Robotics and Automation Magazine, 2006, 13, 62-73.	2.0	18
43	A Unified Formulation for Massively Parallel Rigid Multibody Dynamics of O(log2n) Computational Complexity. Journal of Parallel and Distributed Computing, 2002, 62, 1001-1020.	4.1	7
44	Novel algorithms for massively parallel, long-term, simulation of molecular dynamics systems. Advances in Engineering Software, 1998, 29, 441-450.	3.8	10
45	A Fast Algorithm for Massively Parallel, Long-Term, Simulation of Complex Molecular Dynamics Systems. Advances in Parallel Computing, 1998, , 505-515.	0.3	1