Mauricio R Bonilla

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3055982/publications.pdf

Version: 2024-02-01

30	818	471509 17	501196 28
papers	citations	h-index	g-index

31	31	31	1233
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Impact of Glucose on the Nanostructure and Mechanical Properties of Calcium-Alginate Hydrogels. Gels, 2022, 8, 71.	4.5	7
2	On the interfacial lithium dynamics in Li7La3Zr2O12:poly(ethylene oxide) (LiTFSI) composite polymer-ceramic solid electrolytes under strong polymer phase confinement. Journal of Colloid and Interface Science, 2022, 623, 870-882.	9.4	14
3	Viscoelasticity of non-colloidal hydrogel particle suspensions at the liquidâ€“solid transition. Soft Matter, 2021, 17, 5073-5083.	2.7	6
4	Unveiling Interfacial Li-Ion Dynamics in Li₇La₃Zr₂O₁₂/PEO(LiTFSI) Composite Polymer-Ceramic Solid Electrolytes for All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 30653-30667.	8.0	25
5	Multiscale Modelling and Simulation of Advanced Battery Materials. SEMA SIMAI Springer Series, 2021, , 69-113.	0.7	2
6	Nanostructure and poroviscoelasticity in cell wall materials from onion, carrot and apple: Roles of pectin. Food Hydrocolloids, 2020, 98, 105253.	10.7	28
7	New insights into cooked rice quality by measuring modulus, adhesion and cohesion at the level of an individual rice grain. Journal of Food Engineering, 2019, 240, 21-28.	5.2	13
8	Exploring Li-ion conductivity in cubic, tetragonal and mixed-phase Al-substituted Li7La3Zr2O12 using atomistic simulations and effective medium theory. Acta Materialia, 2019, 175, 426-435.	7.9	16
9	Probing adhesion between nanoscale cellulose fibres using AFM lateral force spectroscopy: The effect of hemicelluloses on hydrogen bonding. Carbohydrate Polymers, 2019, 208, 97-107.	10.2	22
10	Atomistic Insight into Ion Transport and Conductivity in Ga/Al-Substituted Li₇La₃Zr₂O₁₂ Solid Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 753-765.	8.0	40
11	Mucin gel assembly is controlled by a collective action of non-mucin proteins, disulfide bridges, Ca2+-mediated links, and hydrogen bonding. Scientific Reports, 2018, 8, 5802.	3.3	84
12	Modelling of Thermal Sterilisation of High-Moisture Snack Foods: Feasibility Analysis and Optimization. Food and Bioprocess Technology, 2018, 11, 979-990.	4.7	1
13	Revealing the Mechanism of Sodium Diffusion in Na_xFePO₄ Using an Improved Force Field. Journal of Physical Chemistry C, 2018, 122, 8065-8075.	3.1	12
14	Cellulose-pectin composite hydrogels: Intermolecular interactions and material properties depend on order of assembly. Carbohydrate Polymers, 2017, 162, 71-81.	10.2	56
15	Friction, lubrication, and in situ mechanics of poroelastic cellulose hydrogels. Soft Matter, 2017, 13, 3592-3601.	2.7	14
16	Pectin impacts cellulose fibre architecture and hydrogel mechanics in the absence of calcium. Carbohydrate Polymers, 2016, 153, 236-245.	10.2	32
17	Mapping nano-scale mechanical heterogeneity of primary plant cell walls. Journal of Experimental Botany, 2016, 67, 2799-2816.	4.8	34
18	Micromechanical model of biphasic biomaterials with internal adhesion: Application to nanocellulose hydrogel composites. Acta Biomaterialia, 2016, 29, 149-160.	8.3	27

#	Article	IF	Citations
19	Interpreting atomic force microscopy nanoindentation of hierarchical biological materials using multi-regime analysis. Soft Matter, 2015, 11, 1281-1292.	2.7	38
20	Micromechanics and Poroelasticity of Hydrated Cellulose Networks. Biomacromolecules, 2014, 15, 2274-2284.	5.4	52
21	Understanding Adsorption and Transport of Light Gases in Hierarchical Materials Using Molecular Simulation and Effective Medium Theory. Journal of Physical Chemistry C, 2014, 118, 14355-14370.	3.1	29
22	Diffusion Study by IR Micro-Imaging of Molecular Uptake and Release on Mesoporous Zeolites of Structure Type CHA and LTA. Materials, 2013, 6, 2662-2688.	2.9	30
23	The transport of gases in a mesoporous Î³-alumina supported membrane. Journal of Membrane Science, 2013, 428, 357-370.	8.2	14
24	Diffusion in Pore Networks: Effective Self-Diffusivity and the Concept of Tortuosity. Journal of Physical Chemistry C, 2013, 117, 3343-3357.	3.1	17
25	Multicomponent Effective Mediumâ€“Correlated Random Walk Theory for the Diffusion of Fluid Mixtures through Porous Media. Langmuir, 2012, 28, 517-533.	3.5	12
26	The transport of gases in macroporous Î±-alumina supports. Journal of Membrane Science, 2012, 409-410, 24-33.	8.2	15
27	Molecular transport in nanopores: a theoretical perspective. Physical Chemistry Chemical Physics, 2011, 13, 15350.	2.8	137
28	The low-density diffusion coefficient of soft-sphere fluids in nanopores: Accurate correlations from exact theory and criteria for applicability of the Knudsen model. Journal of Membrane Science, 2011, 382, 339-339.	8.2	23
29	Heat Treatment-Induced Structural Changes in SiC-Derived Carbons and their Impact on Gas Storage Potential. Journal of Physical Chemistry C, 2010, 114, 16562-16575.	3.1	18
30	Exploring Li-Ion Conductivity in Cubic, Tetragonal and Mixed-Phase Al-Substituted Li ₇La ₃Zr2O ₁₂ Using Atomistic Simulations and Effective Medium Theory. SSRN Electronic Journal, 0, , .	0.4	0