

Vivek S Bharadwaj

List of Publications by Year in descending order

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Version: 2024-02-01

28
papers

542
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623734

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32
times ranked

809
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#	ARTICLE	IF	CITATIONS
1	A site-differentiated [4Fe-4S] cluster controls electron transfer reactivity of <i>Clostridium acetobutylicum</i> [FeFe]-hydrogenase I. <i>Chemical Science</i> , 2022, 13, 4581-4588.	7.4	8
2	Mass Transport Limitations and Kinetic Consequences of Corn Stover Deacetylation. <i>Frontiers in Energy Research</i> , 2022, 10, .	2.3	5
3	<i>Ex situ</i> upgrading of pyrolysis vapors over PtTiO ₂ : extraction of apparent kinetics <i>via</i> hierarchical transport modeling. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 125-137.	3.7	11
4	Rational enzyme design for controlled functionalization of acetylated xylan for cell-free polymer biosynthesis. <i>Carbohydrate Polymers</i> , 2021, 273, 118564.	10.2	4
5	Understanding extreme fast charge limitations in carbonate mixtures. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4858-4869.	10.3	21
6	Towards Elucidating Structure-Spectra Relationships in Rhamnogalacturonan II: Computational Protocols for Accurate ¹³ C and ¹ H Shifts for Apiose and Its Borate Esters. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 756219.	3.5	0
7	Beyond the effectiveness factor: Multi-step reactions with intraparticle diffusion limitations. <i>Chemical Engineering Journal</i> , 2020, 380, 122507.	12.7	31
8	Selective One-Dimensional ¹³ C Spin-Diffusion Solid-State Nuclear Magnetic Resonance Methods to Probe Spatial Arrangements in Biopolymers Including Plant Cell Walls, Peptides, and Spider Silk. <i>Journal of Physical Chemistry B</i> , 2020, 124, 9870-9883.	2.6	11
9	Mechanism and Reaction Energy Landscape for Apiose Cross-Linking by Boric Acid in Rhamnogalacturonan II. <i>Journal of Physical Chemistry B</i> , 2020, 124, 10117-10125.	2.6	5
10	Molecular Mechanism of Polysaccharide Acetylation by the Arabidopsis Xylan <i>O</i> -acetyltransferase XOAT1. <i>Plant Cell</i> , 2020, 32, 2367-2382.	6.6	32
11	Reply to Cosgrove: Non-enzymatic action of expansins. <i>Journal of Biological Chemistry</i> , 2020, 295, 6783.	3.4	0
12	Locating Methyl-Etherified and Methyl-Esterified Uronic Acids in the Plant Cell Wall Pectic Polysaccharide Rhamnogalacturonan II. <i>SLAS Technology</i> , 2020, 25, 329-344.	1.9	19
13	Advances in Multiscale Modeling of Lignocellulosic Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3512-3531.	6.7	79
14	The hydrolysis mechanism of a GH45 cellulase and its potential relation to lytic transglycosylase and expansin function. <i>Journal of Biological Chemistry</i> , 2020, 295, 4477-4487.	3.4	16
15	Multi-scale simulation of reaction, transport and deactivation in a SBA-16 supported catalyst for the conversion of ethanol to butadiene. <i>Catalysis Today</i> , 2019, 338, 141-151.	4.4	17
16	Nanomechanics of cellulose deformation reveal molecular defects that facilitate natural deconstruction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9825-9830.	7.1	40
17	Advancing catalytic fast pyrolysis through integrated multiscale modeling and experimentation: Challenges, progress, and perspectives. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2018, 7, e297.	4.1	30
18	Different Behaviors of a Substrate in P450 Decarboxylase and Hydroxylase Reveal Reactivity-Enabling Actors. <i>Scientific Reports</i> , 2018, 8, 12826.	3.3	9

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19	Impact of Water-Dilution on the Solvation Properties of the Ionic Liquid 1-Methyltriethoxy-3-ethylimidazolium Acetate for Model Biomass Molecules. <i>Journal of Physical Chemistry B</i> , 2017, 121, 843-853.	2.6	23
20	Structural, mutagenic and <i>in silico</i> studies of xyloglucan fucosylation in <i>Arabidopsis thaliana</i> suggest a water-mediated mechanism. <i>Plant Journal</i> , 2017, 91, 931-949.	5.7	53
21	Impact of water dilution and cation tail length on ionic liquid characteristics: Interplay between polar and non-polar interactions. <i>Journal of Chemical Physics</i> , 2016, 145, 064504.	3.0	14
22	<i>In silico</i> insights into the solvation characteristics of the ionic liquid 1-methyltriethoxy-3-ethylimidazolium acetate for cellulosic biomass. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 23715-23726.	2.8	17
23	Molecular Simulations of Fatty Acid Methyl Esters and Representative Biodiesel Mixtures. <i>ChemPhysChem</i> , 2015, 16, 2810-2817.	2.1	14
24	The impact of active site protonation on substrate ring conformation in <i>Melanocarpus albomyces</i> cellobiohydrolase Cel7B. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 16947-16958.	2.8	5
25	Elucidating the conformational energetics of glucose and cellobiose in ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10668-10678.	2.8	19
26	Unravelling the impact of hydrocarbon structure on the fumarate addition mechanism – a gas-phase <i>ab initio</i> study. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 4054-4066.	2.8	14
27	Acetylcholine Promotes Binding of α -Conotoxin MII at $\alpha_3\beta_2$ Nicotinic Acetylcholine Receptors. <i>ChemBioChem</i> , 2014, 15, 413-424.	2.6	14
28	Insights into the Glycyl Radical Enzyme Active Site of Benzylsuccinate Synthase: A Computational Study. <i>Journal of the American Chemical Society</i> , 2013, 135, 12279-12288.	13.7	30