

Heather B Mayes

List of Publications by Year in descending order

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Version: 2024-02-01

22
papers

1,826
citations

516710

16
h-index

713466

21
g-index

24
all docs

24
docs citations

24
times ranked

2396
citing authors

#	ARTICLE	IF	CITATIONS
1	Fungal Cellulases. <i>Chemical Reviews</i> , 2015, 115, 1308-1448.	47.7	673
2	Unraveling the Reactions that Unravel Cellulose. <i>Journal of Physical Chemistry A</i> , 2012, 116, 7098-7106.	2.5	176
3	Experimental and Mechanistic Modeling of Fast Pyrolysis of Neat Glucose-Based Carbohydrates. 1. Experiments and Development of a Detailed Mechanistic Model. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 13274-13289.	3.7	160
4	How Sugars Pucker: Electronic Structure Calculations Map the Kinetic Landscape of Five Biologically Paramount Monosaccharides and Their Implications for Enzymatic Catalysis. <i>Journal of the American Chemical Society</i> , 2014, 136, 1008-1022.	13.7	134
5	The Alpha- β of Glucose Pyrolysis: Computational and Experimental Investigations of 5-Hydroxymethylfurfural and Levoglucosan Formation Reveal Implications for Cellulose Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 1461-1473.	6.7	113
6	Best Practices for Foundations in Molecular Simulations [Article v1.0]. <i>Living Journal of Computational Molecular Science</i> , 2019, 1, .	6.4	105
7	Fast pyrolysis of glucose-based carbohydrates with added NaCl part 1: Experiments and development of a mechanistic model. <i>AIChE Journal</i> , 2016, 62, 766-777.	3.6	57
8	The Alpha- β of Salty Glucose Pyrolysis: Computational Investigations Reveal Carbohydrate Pyrolysis Catalytic Action by Sodium Ions. <i>ACS Catalysis</i> , 2015, 5, 192-202.	11.2	56
9	Redesigned Hybrid Nylons with Optical Clarity and Chemical Recyclability. <i>Journal of the American Chemical Society</i> , 2022, 144, 5366-5376.	13.7	53
10	Sodium Ion Interactions with Aqueous Glucose: Insights from Quantum Mechanics, Molecular Dynamics, and Experiment. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1990-2000.	2.6	49
11	Biochemical and Genetic Analysis Identify CSLD3 as a beta-1,4-Glucan Synthase That Functions during Plant Cell Wall Synthesis. <i>Plant Cell</i> , 2020, 32, 1749-1767.	6.6	49
12	Fast pyrolysis of glucose-based carbohydrates with added NaCl part 2: Validation and evaluation of the mechanistic model. <i>AIChE Journal</i> , 2016, 62, 778-791.	3.6	44
13	The Origin of Coupled Chloride and Proton Transport in a Cl ⁻ /H ⁺ Antiporter. <i>Journal of the American Chemical Society</i> , 2016, 138, 14923-14930.	13.7	41
14	Multiscale Kinetic Modeling Reveals an Ensemble of Cl ⁻ /H ⁺ Exchange Pathways in ClC-ec1 Antiporter. <i>Journal of the American Chemical Society</i> , 2018, 140, 1793-1804.	13.7	39
15	Who's on base? Revealing the catalytic mechanism of inverting family 6 glycoside hydrolases. <i>Chemical Science</i> , 2016, 7, 5955-5968.	7.4	27
16	A temperature-sensitive <i>FERONIA</i> mutant allele that alters root hair growth. <i>Plant Physiology</i> , 2021, 185, 405-423.	4.8	22
17	Mechanism of oligosaccharide synthesis <i>via</i> a mutant GH29 fucosidase. <i>Reaction Chemistry and Engineering</i> , 2019, 4, 402-409.	3.7	10
18	Advantages of a distant cellulase catalytic base. <i>Journal of Biological Chemistry</i> , 2018, 293, 4680-4687.	3.4	5

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19	Click-Chemistry-Based Free Azide versus Azido Sugar Detection Enables Rapid In Vivo Screening of Glycosynthase Activity. ACS Chemical Biology, 2021, 16, 2490-2501.	3.4	4
20	Bioconversion of wastewater-derived cresols to methyl muconic acids for use in performance-advantaged bioproducts. Green Chemistry, 2022, 24, 3677-3688.	9.0	4
21	Energy: Fuelling the future. Nature, 2013, 502, S60-S61.	27.8	3
22	The Origin of Coupled Chloride and Proton Transport in a Cl ⁻ /H ⁺ Antiporter. Biophysical Journal, 2017, 112, 254a-255a.	0.5	0