Lyann Sim

List of Publications by Year
in descending order

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Version: 2024-02-01

30	1,369	471509 17	454955 30
papers	citations	h-index	g-index

30	30	30	1397
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Human Intestinal Maltaseâ€“Glucoamylase: Crystal Structure of the N-Terminal Catalytic Subunit and Basis of Inhibition and Substrate Specificity. Journal of Molecular Biology, 2008, 375, 782-792.	4.2	248
2	Structural Basis for Substrate Selectivity in Human Maltase-Glucoamylase and Sucrase-Isomaltase N-terminal Domains. Journal of Biological Chemistry, 2010, 285, 17763-17770.	3.4	173
3	New Glucosidase Inhibitors from an Ayurvedic Herbal Treatment for Type 2 Diabetes: Structures and Inhibition of Human Intestinal Maltase-Glucoamylase with Compounds from Salacia reticulata. Biochemistry, 2010, 49, 443-451.	2.5	134
4	Total Syntheses of Casuarine and Its 6â€²-O-â€Î±-Glucoside: Complementary Inhibition towards Glycoside Hydrolases of the GH31 and GH37 Families. Chemistry - A European Journal, 2009, 15, 1627-1636.	3.3	92
5	Luminal Starch Substrate â€œBrakeâ€•on Maltase-Glucoamylase Activity Is Located within the Glucoamylase Subunit3. Journal of Nutrition, 2008, 138, 685-692.	2.9	81
6	Inhibition of recombinant human maltase glucoamylase by salacinol and derivatives. FEBS Journal, 2006, 273, 2673-2683.	4.7	74
7	Mapping the intestinal alpha-glucogenic enzyme specificities of starch digesting maltase-glucoamylase and sucrase-isomaltase. Bioorganic and Medicinal Chemistry, 2011, 19, 3929-3934.	3.0	69
8	Evidence of native starch degradation with human small intestinal maltaseâ€glucoamylase (recombinant). FEBS Letters, 2007, 581, 2381-2388.	2.8	58
9	An enzymatic pathway in the human gut microbiome that converts A to universal O type blood. Nature Microbiology, 2019, 4, 1475-1485.	13.3	56
10	Studies Directed toward the Stereochemical Structure Determination of the Naturally Occurring Glucosidase Inhibitor, Kotalanol: Synthesis and Inhibitory Activities against Human Maltase Glucoamylase of Seven-Carbon, Chain-Extended Homologues of Salacinol. Journal of Organic Chemistry, 2008, 73, 6172-6181.	3.2	43
11	Unexpected High Digestion Rate of Cooked Starch by the Ct-Maltase-Glucoamylase Small Intestine Mucosal Î±-Glucosidase Subunit. PLoS ONE, 2012, 7, e35473.	2.5	43
12	New Synthetic Routes to Chain-Extended Selenium, Sulfur, and Nitrogen Analogues of the Naturally Occurring Glucosidase Inhibitor Salacinol and their Inhibitory Activities against Recombinant Human Maltase Glucoamylase. Journal of Organic Chemistry, 2007, 72, 6562-6572.	3.2	39
13	A New Class of Glucosidase Inhibitor:Â Analogues of the Naturally Occurring Glucosidase Inhibitor Salacinol with Different Ring Heteroatom Substituents and Acyclic Chain Extension. Journal of Organic Chemistry, 2006, 71, 3007-3013.	3.2	37
14	A Bacterial Expression Platform for Production of Therapeutic Proteins Containing Human-like O-Linked Glycans. Cell Chemical Biology, 2019, 26, 203-212.e5.	5.2	35
15	New Chain-Extended Analogues of Salacinol and Blintol and Their Glycosidase Inhibitory Activities. Mapping the Active-Site Requirements of Human Maltase Glucoamylase. Journal of Organic Chemistry, 2007, 72, 180-186.	3.2	32
16	Synthesis of S-alkylated sulfonium-ions and their glucosidase inhibitory activities against recombinant human maltase glucoamylase. Carbohydrate Research, 2007, 342, 901-912.	2.3	24
17	Structural and biochemical characterization of theNâ€terminal domain of flocculinLgâ€Flo1p fromSaccharomycesÂpastorianusreveals a unique specificity for phosphorylated mannose. FEBS Journal, 2013, 280, 1073-1083.	4.7	18
18	7-Fluorosialyl Glycosides Are Hydrolysis Resistant but Readily Assembled by Sialyltransferases Providing Easy Access to More Metabolically Stable Glycoproteins. ACS Central Science, 2021, 7, 345-354.	11.3	16

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19	Synthesis, enzymatic activity, and X-ray crystallography of an unusual class of amino acids. Bioorganic and Medicinal Chemistry, 2006, 14, 8332-8340.	3.0	14
20	X-ray crystallographic structure of a bacterial polysialyltransferase provides insight into the biosynthesis of capsular polysialic acid. Scientific Reports, 2017, 7, 5842.	3.3	13
21	Prevention of vascular-allograft rejection by protecting the endothelial glycocalyx with immunosuppressive polymers. Nature Biomedical Engineering, 2021, 5, 1202-1216.	22.5	12
22	Synthesis of analogues of salacinol containing a carboxylate inner salt and their inhibitory activities against human maltase glucoamylase. Carbohydrate Research, 2007, 342, 1661-1667.	2.3	10
23	Characterization of a thermostable endoglucanase fromCellulomonas fimiATCC484. Biochemistry and Cell Biology, 2018, 96, 68-76.	2.0	10
24	Synthesis and glycosidase inhibitory activities of chain-modified analogues of the glycosidase inhibitors salacinol and blintol. Carbohydrate Research, 2007, 342, 1888-1894.	2.3	8
25	Directed evolution of bacterial polysialyltransferases. Glycobiology, 2019, 29, 588-598.	2.5	8
26	Comparison of Î±2,6-sialyltransferases for sialylation of therapeutic proteins. Glycobiology, 2019, 29, 735-747.	2.5	7
27	Discovery and Development of Promiscuous O-Glycan Hydrolases for Removal of Intact Sialyl T-Antigen. ACS Chemical Biology, 2021, 16, 2004-2015.	3.4	7
28	Synthesis of 2-deoxy-2-fluoro and 1,2-ene derivatives of the naturally occurring glycosidase inhibitor, salacinol, and their inhibitory activities against recombinant human maltase glucoamylase. Carbohydrate Research, 2008, 343, 951-956.	2.3	5
29	Mammalian sialyltransferases allow efficient Escherichia coli-based production of mucin-type O-glycoproteins but can also transfer Kdo. Glycobiology, 2022, 32, 429-440.	2.5	2
30	Specific starch digestion of maize alphaâ€limit dextrins by recombinant mucosal glucosidase enzymes. FASEB Journal, 2010, 24, 231.6.	0.5	1