DarÃ³n I Freedberg

List of Publications by Year
in descending order

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36 papers	1,091 citations	430874 18 h-index	395702 33 g-index
37 all docs	37 docs citations	37 times ranked	1404 citing authors

#	Article	IF	Citations
1	Live Cell NMR. Annual Review of Biophysics, 2014, 43, 171-192.	10.0	130
2	Escherichia coli K1 polysialic acid O-acetyltransferase gene, neuO, and the mechanism of capsule form variation involving a mobile contingency locus. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5564-5569.	7.1	68
3	Enabling adoption of 2D-NMR for the higher order structure assessment of monoclonal antibody therapeutics. MAbs, 2019, 11, 94-105.	5.2	67
4	Single synonymous mutation in factor IX alters protein properties and underlies haemophilia B. Journal of Medical Genetics, 2017, 54, 338-345.	3.2	66
5	NMR of glycans: Shedding new light on old problems. Progress in Nuclear Magnetic Resonance Spectroscopy, 2014, 79, 48-68.	7.5	61
6	An Alternative Method for Pucker Determination in Carbohydrates from Residual Dipolar Couplings:Â A Solution NMR Study of the Fructofuranosyl Ring of Sucrose. Journal of the American Chemical Society, 2002, 124, 2358-2362.	13.7	57
7	Extracellular structure of polysialic acid explored by on cell solution NMR. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11557-11561.	7.1	55
8	Evidence for Helical Structure in a Tetramer of Î±2-8 Sialic Acid: Unveiling a Structural Antigen. Journal of the American Chemical Society, 2012, 134, 10717-10720.	13.7	52
9	More accurate 1JCH coupling measurement in the presence of 3JHH strong coupling in natural abundance. Journal of Magnetic Resonance, 2012, 215, 10-22.	2.1	50
10	Direct Evidence for Hydrogen Bonding in Glycans: A Combined NMR and Molecular Dynamics Study. Journal of Physical Chemistry B, 2013, 117, 4860-4869.	2.6	45
11	Mapping Hydration Water Molecules in the HIV-1 Protease/DMP323 Complex in Solution by NMR Spectroscopyâ€. Biochemistry, 1996, 35, 12694-12704.	2.5	44
12	The utility of residual dipolar couplings in detecting motion in carbohydrates: application to sucrose. Carbohydrate Research, 2005, 340, 863-874.	2.3	38
13	Effects of codon optimization on coagulation factor IX translation and structure: Implications for protein and gene therapies. Scientific Reports, 2019, 9, 15449.	3.3	38
14	Uncovering Nonconventional and Conventional Hydrogen Bonds in Oligosaccharides through NMR Experiments and Molecular Modeling: Application to Sialyl Lewis-X. Journal of the American Chemical Society, 2015, 137, 13444-13447.	13.7	34
15	Discriminating the Helical Forms of Peptides by NMR and Molecular Dynamics Simulation. Journal of the American Chemical Society, 2004, 126, 10478-10484.	13.7	25
16	Utility of coupled-HSQC experiments in the intact structural elucidation of three complex saponins from Blighia sapida. Carbohydrate Research, 2011, 346, 759-768.	2.3	25
17	Sialo-CEST: chemical exchange saturation transfer NMR of oligo- and poly-sialic acids and the assignment of their hydroxyl groups using selective- and HSQC-TOCSY. Carbohydrate Research, 2014, 389, 165-173.	2.3	21
18	Sensitivity enhancement of homonuclear multidimensional NMR correlations for labile sites in proteins, polysaccharides, and nucleic acids. Nature Communications, 2020, 11, 5317.	12.8	20

#	Article	IF	Citations
19	Reversible O-Acetyl Migration within the Sialic Acid Side Chain and Its Influence on Protein Recognition. ACS Chemical Biology, 2021, 16, 1951-1960.	3.4	19
20	Constant time INEPT CT-HSQC (CTi-CT-HSQC) â€“ A new NMR method to measure accurate one-bond J and RDCs with strong 1Hâ€“1H couplings in natural abundance. Journal of Magnetic Resonance, 2013, 228, 159-165.	2.1	17
21	A combined NMR, MD and DFT conformational analysis of 9-O-acetyl sialic acid-containing GM3 ganglioside glycan and its 9-N-acetyl mimic. Glycobiology, 2020, 30, 787-801.	2.5	17
22	NMR detection and characterization of sialylated glycoproteins and cell surface polysaccharides. Journal of Biomolecular NMR, 2011, 51, 163-171.	2.8	16
23	Transient hydrogen bonding in uniformly ¹³C,¹⁵Nâ€Labeled Carbohydrates in Water. Biopolymers, 2012, 97, 145-154.	2.4	16
24	Glycan OH Exchange Rate Determination in Aqueous Solution: Seeking Evidence for Transient Hydrogen Bonds. Journal of Physical Chemistry B, 2017, 121, 683-695.	2.6	16
25	Size-Controlled Chemoenzymatic Synthesis of Homogeneous Oligosaccharides of Neisseria meningitidis W Capsular Polysaccharide. ACS Catalysis, 2020, 10, 2791-2798.	11.2	14
26	The Incorporation of Labile Protons into Multidimensional NMR Analyses: Glycan Structures Revisited. Journal of the American Chemical Society, 2021, 143, 8935-8948.	13.7	13
27	Deuterium conformational equilibrium isotope effects in 1,3,5-cycloheptatriene-7-d. Journal of Physical Organic Chemistry, 2001, 14, 625-635.	1.9	11
28	The Î²-reducing end in Î±(2â€“8)-polysialic acid constitutes a unique structural motif. Glycobiology, 2017, 27, 900-911.	2.5	11
29	Data processing in NMR relaxometry using the matrix pencil. Journal of Magnetic Resonance, 2020, 313, 106704.	2.1	10
30	Glycosylation States on Intact Proteins Determined by NMR Spectroscopy. Molecules, 2021, 26, 4308.	3.8	8
31	Dispersing the crowd: Adopting 13C direct detection for glycans. Journal of Magnetic Resonance, 2020, 318, 106792.	2.1	6
32	Accurate determinations of one-bond 13Câ€“13C couplings in 13C-labeled carbohydrates. Journal of Magnetic Resonance, 2013, 228, 130-135.	2.1	5
33	Improving Analytical Characterization of Glycoconjugate Vaccines through Combined High-Resolution MS and NMR: Application to Neisseria meningitidis Serogroup B Oligosaccharide-Peptide Glycoconjugates. Analytical Chemistry, 2018, 90, 5040-5047.	6.5	5
34	Synthesis and Physicochemical Characterization of <smlcap>D</smlcap>-Tagatose-1-Phosphate: The Substrate of the Tagatose-1-Phosphate Kinase in the Phosphotransferase System-Mediated <smlcap>D</smlcap>-Tagatose Catabolic Pathway of <i>Bacillus licheniformis</i>. Journal of Molecular Microbiology and Biotechnology, 2015, 25, 106-119.	1.0	4
35	Structural, functional, and immunogenicity implications of F9 gene recoding. Blood Advances, 2022, 6, 3932-3944.	5.2	4
36	Solution NMR Structural Studies of Glycans. Israel Journal of Chemistry, 2019, 59, 1039-1058.	2.3	3