Nicola L B Pohl

List of Publications by Year
in descending order

115 papers	3,944 citations	136950 32 h-index	138484 58 g-index
132 all docs	132 docs citations	132 times ranked	3946 citing authors

#	Article	IF	Citations
1	Fully automated fast-flow synthesis of antisense phosphorodiamidate morpholino oligomers. Nature Communications, 2021, 12, 4396.	12.8	24
2	Automated, Multistep Continuousâ€Flow Synthesis of 2,6â€Dideoxy and 3â€Aminoâ€2,3,6â€trideoxy Monosaccharide Building Blocks. Angewandte Chemie, 2021, 133, 23355.	2.0	0
3	Automated, Multistep Continuousâ€Flow Synthesis of 2,6â€Dideoxy and 3â€Aminoâ€2,3,6â€trideoxy Monosaccharide Building Blocks. Angewandte Chemie - International Edition, 2021, 60, 23171-23175.	13.8	22
4	Structural insight into the binding of human galectins to corneal keratan sulfate, its desulfated form and related saccharides. Scientific Reports, 2020, 10, 15708.	3.3	15
5	A Very Short History of the Carbohydrate Division of the American Chemical Society. Journal of Organic Chemistry, 2020, 85, 15778-15779.	3.2	1
6	A New Era of Discovery in Carbohydrate Chemistry. Journal of Organic Chemistry, 2020, 85, 15770-15772.	3.2	1
7	Automated Solution-Phase Synthesis of S-Glycosides for the Production of Oligomannopyranoside Derivatives. Organic Letters, 2020, 22, 4156-4159.	4.6	22
8	Addition of Sialic Acid to Insulin Confers Superior Physical Properties and Bioequivalence. Journal of Medicinal Chemistry, 2020, 63, 6134-6143.	6.4	11
9	Parallel Glyco-SPOT Synthesis of Glycopeptide Libraries. Cell Chemical Biology, 2020, 27, 1207-1219.e9.	5.2	9
10	Modular continuous flow synthesis of orthogonally protected 6-deoxy glucose glycals. Organic and Biomolecular Chemistry, 2020, 18, 3254-3257.	2.8	4
11	Advancing Solutions to the Carbohydrate Sequencing Challenge. Journal of the American Chemical Society, 2019, 141, 14463-14479.	13.7	108
12	Acid-mediated N-iodosuccinimide-based thioglycoside activation for the automated solution-phase synthesis of Î±-1,2-linked-rhamnopyranosides. Pure and Applied Chemistry, 2019, 91, 1243-1255.	1.9	7
13	Automated solution-phase syntheses of alpha 1â€¯â†'â€¯2, 1â€¯â†'â€¯3 type rhamnans and rhamnan sulfate fragments. Carbohydrate Research, 2019, 486, 107829.	2.3	6
14	Putting sugars under strain. Science, 2019, 364, 631-632.	12.6	0
15	Design and synthesis of multivalent Î±-1,2-trimannose-linked bioerodible microparticles for applications in immune response studies of Leishmania major infection. Beilstein Journal of Organic Chemistry, 2019, 15, 623-632.	2.2	4
16	Robots command enzymes. Nature Chemistry, 2019, 11, 201-203.	13.6	5
17	Probing deoxysugar conformational preference: A comprehensive computational study investigating the effects of deoxygenation. Carbohydrate Research, 2019, 475, 17-26.	2.3	4
18	Development of a Post-Column Liquid Chromatographic Chiral Addition Method for the Separation and Resolution of Common Mammalian Monosaccharides. Journal of the American Society for Mass Spectrometry, 2019, 30, 419-425.	2.8	9

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19	Scope and limitations of carbohydrate hydrolysis for de novo glycan sequencing using a hydrogen peroxide/metallopeptide-based glycosidase mimetic. Carbohydrate Research, 2018, 458-459, 85-88.	2.3	4
20	Challenges in the Conversion of Manual Processes to Machine-Assisted Syntheses: Activation of Thioglycoside Donors with Aryl(trifluoroethyl)iodonium Triflimide. Organic Letters, 2018, 20, 800-803.	4.6	27
21	Leishmania-Derived Trimannose Modulates the Inflammatory Response To Significantly Reduce Leishmania major-Induced Lesions. Infection and Immunity, 2018, 86, .	2.2	3
22	Protein N-Glycans: Incorporating Glycochemistry into the Undergraduate Laboratory Curriculum. Journal of Chemical Education, 2018, 95, 2249-2255.	2.3	2
23	Introduction: Carbohydrate Chemistry. Chemical Reviews, 2018, 118, 7865-7866.	47.7	10
24	Synthesis of protected glucose derivatives from levoglucosan by development of common carbohydrate protecting group reactions under continuous flow conditions. Carbohydrate Research, 2018, 468, 23-29.	2.3	10
25	Recent liquid chromatographic approaches and developments for the separation and purification of carbohydrates. Analytical Methods, 2017, 9, 3579-3593.	2.7	47
26	Functionalization promotes pathogenâ€mimicking characteristics of polyanhydride nanoparticle adjuvants. Journal of Biomedical Materials Research - Part A, 2017, 105, 2762-2771.	4.0	14
27	A Highâ€Throughput Massâ€Spectrometryâ€Based Assay for Identifying the Biochemical Functions of Putative Glycosidases. ChemBioChem, 2017, 18, 2306-2311.	2.6	7
28	Identification and deconvolution of carbohydrates with gas chromatography-vacuum ultraviolet spectroscopy. Journal of Chromatography A, 2017, 1513, 210-221.	3.7	29
29	Pentavalent Bismuth as a Universal Promoter for S-Containing Glycosyl Donors with a Thiol Additive. Organic Letters, 2017, 19, 4516-4519.	4.6	15
30	Effects of varying the 6-position oxidation state of hexopyranoses: a systematic comparative computational analysis of 48 monosaccharide stereoisomers. Journal of Molecular Modeling, 2017, 23, 214.	1.8	3
31	Recent Advances in the Analysis of Complex Glycoproteins. Analytical Chemistry, 2017, 89, 389-413.	6.5	106
32	Designing sugar mimetics: non-natural pyranosides as innovative chemical tools. Current Opinion in Chemical Biology, 2016, 34, 127-134.	6.1	10
33	Overcoming the limited availability of human milk oligosaccharides: challenges and opportunities for research and application. Nutrition Reviews, 2016, 74, 635-644.	5.8	109
34	Protocol for the purification of protected carbohydrates: toward coupling automated synthesis to alternate-pump recycling high-performance liquid chromatography. Chemical Communications, 2016, 52, 13253-13256.	4.1	29
35	Mechanistic Studies of Bismuth(V)-Mediated Thioglycoside Activation Reveal Differential Reactivity of Anomers. Journal of Organic Chemistry, 2016, 81, 5949-5962.	3.2	19
36	Automated fluorous-assisted solution-phase synthesis of Î²-1,2-, 1,3-, and 1,6-mannan oligomers. Carbohydrate Research, 2016, 430, 8-15.	2.3	26

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37	General Label-Free Mass Spectrometry-Based Assay To Identify Glycosidase Substrate Competence. Analytical Chemistry, 2016, 88, 7183-7190.	6.5	12
38	Fluorous-Tag Assisted Syntheses of Sulfated Keratan Sulfate Oligosaccharide Fragments. Organic Letters, 2016, 18, 1414-1417.	4.6	34
39	Introducing Students to Protein Analysis Techniques: Separation and Comparative Analysis of Gluten Proteins in Various Wheat Strains. Journal of Chemical Education, 2016, 93, 330-334.	2.3	6
40	Acidâ€Triggered Degradable Reagents for Differentiation of Adaptive and Innate Immune Responses to Leishmaniaâ€Associated Sugars. Angewandte Chemie - International Edition, 2015, 54, 9610-9613.	13.8	6
41	Complete Hexose Isomer Identification with Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2015, 26, 677-685.	2.8	55
42	Automated Solution-Phase Synthesis of Î²-1,4-Mannuronate and Î²-1,4-Mannan. Organic Letters, 2015, 17, 2642-2645.	4.6	74
43	Monosaccharide Identification as a First Step toward de Novo Carbohydrate Sequencing: Mass Spectrometry Strategy for the Identification and Differentiation of Diastereomeric and Enantiomeric Pentose Isomers. Analytical Chemistry, 2015, 87, 4566-4571.	6.5	46
44	Automated Solution-Phase Synthesis of Insect Glycans to Probe the Binding Affinity of Pea Enation Mosaic Virus. Journal of Organic Chemistry, 2015, 80, 10482-10489.	3.2	28
45	Safety and Biocompatibility of Carbohydrate-Functionalized Polyanhydride Nanoparticles. AAPS Journal, 2015, 17, 256-267.	4.4	41
46	Synthesis of Fluorous Photolabile Aldehyde and Carbamate and Alkyl Carbamate Protecting Groups for Carbohydrate-Associated Amines. Organic Letters, 2014, 16, 1156-1159.	4.6	15
47	A Research Module for the Organic Chemistry Laboratory: Multistep Synthesis of a Fluorous Dye Molecule. Journal of Chemical Education, 2014, 91, 126-130.	2.3	33
48	Regioselective Benzylation of 2â€Deoxyâ€2â€aminosugars using Crown Ethers: Application to a Shortened Synthesis of Hyaluronic Acid Oligomers. Advanced Synthesis and Catalysis, 2014, 356, 2247-2256.	4.3	11
49	Nanoparticle Chemistry and Functionalization Differentially Regulates Dendritic Cellâ€"Nanoparticle Interactions and Triggers Dendritic Cell Maturation. Particle and Particle Systems Characterization, 2014, 31, 1269-1280.	2.3	25
50	Synthesis of a series of maltotriose phosphates with an evaluation of the utility of a fluorous phosphate protecting group. Carbohydrate Research, 2013, 369, 14-24.	2.3	10
51	Bismuth(V)â€Mediated Thioglycoside Activation. Angewandte Chemie - International Edition, 2013, 52, 8441-8445.	13.8	63
52	A mass-differentiated library strategy for identification of sugar nucleotidyltransferase activities from cell lysates. Analytical Biochemistry, 2013, 441, 8-12.	2.4	1
53	The development of N-aryl trifluoroacetimidate-based benzyl and allyl protecting group reagents. Tetrahedron Letters, 2013, 54, 6983-6985.	1.4	15
54	Functionalization of polyanhydride microparticles with di-mannose influences uptake by and intracellular fate within dendritic cells. Acta Biomaterialia, 2013, 9, 8902-8909.	8.3	41

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55	Synthesis of a 3-deoxy-d-manno-octulosonic acid (KDO) building block from d-glucose via fermentation. Organic and Biomolecular Chemistry, 2012, 10, 5856.	2.8	7
56	Probing the limitations of the fluorous content for tag-mediated microarray formation. Chemical Communications, 2012, 48, 510-512.	4.1	21
57	Multigram Synthesis of Isobutyl-Î²-C-galactoside as a Substitute of Isopropylthiogalactoside for Exogenous Gene Induction in Mammalian Cells. Journal of Organic Chemistry, 2012, 77, 1539-1546.	3.2	15
58	Evaluating Sustainability: Soap versus Biodiesel Production from Plant Oils. Journal of Chemical Education, 2012, 89, 1053-1056.	2.3	25
59	Tailoring the immune response by targeting C-type lectin receptors on alveolar macrophages using â€œpathogen-likeâ€•amphiphilic polyanhydride nanoparticles. Biomaterials, 2012, 33, 4762-4772.	11.4	80
60	Production of Fluorous-Based Microarrays with Uncharged Carbohydrates. Methods in Molecular Biology, 2012, 808, 149-153.	0.9	2
61	Mannose-Functionalized â€œPathogen-likeâ€•Polyanhydride Nanoparticles Target C-Type Lectin Receptors on Dendritic Cells. Molecular Pharmaceutics, 2011, 8, 1877-1886.	4.6	118
62	Student-Driven Design of Peptide Mimetics: Microwave-Assisted Synthesis of Peptoid Oligomers. Journal of Chemical Education, 2011, 88, 999-1001.	2.3	15
63	A Fluorous Phosphate Protecting Group with Applications to Carbohydrate Synthesis. Organic Letters, 2011, 13, 1824-1827.	4.6	32
64	Pathogen-Derived Oligosaccharides Improve Innate Immune Response to Intracellular Parasite Infection. American Journal of Pathology, 2011, 179, 1329-1337.	3.8	30
65	New structures, chemical functions, and inhibitors for glycosyltransferases. Current Opinion in Chemical Biology, 2010, 14, 168-173.	6.1	23
66	Synthesis of Multivalent Tuberculosis and Leishmania-Associated Capping Carbohydrates Reveals Structure-Dependent Responses Allowing Immune Evasion. Journal of the American Chemical Society, 2010, 132, 11428-11430.	13.7	42
67	Quantitative Determination of Heavy Metal Contaminant Complexation by the Carbohydrate Polymer Chitin. Journal of Chemical & Engineering Data, 2010, 55, 1117-1121.	1.9	30
68	Rapid Multistep Synthesis of a Bioactive Peptidomimetic Oligomer for the Undergraduate Laboratory. Journal of Chemical Education, 2010, 87, 637-639.	2.3	12
69	Fluorous-based peptide microarrays for protease screening. Journal of Fluorine Chemistry, 2009, 130, 1042-1048.	1.7	21
70	Carbohydrate arrays: recent developments in fabrication and detection methods with applications. Current Opinion in Chemical Biology, 2009, 13, 626-632.	6.1	44
71	Phosphomannose isomerase/GDP-mannose pyrophosphorylase from Pyrococcus furiosus: a thermostable biocatalyst for the synthesis of guanidinediphosphate-activated and mannose-containing sugar nucleotides. Organic and Biomolecular Chemistry, 2009, 7, 2135.	2.8	32
72	Bacterial CMP-sialic acid synthetases: production, properties, and applications. Applied Microbiology and Biotechnology, 2008, 80, 757-65.	3.6	49

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73	Synthesis and Quantitative Evaluation of Glyceroâ€<scp>D</scp>â€mannoâ€heptose Binding to Concanavalinâ€…A by Fluorousâ€Tag Assistance. Angewandte Chemie - International Edition, 2008, 47, 1707-1710.	13.8	94
74	Fluorous Tags Catching on Microarrays. Angewandte Chemie - International Edition, 2008, 47, 3868-3870.	13.8	65
75	Mono- vs. di-fluorous-tagged glucosamines for iterative oligosaccharide synthesis. Journal of Fluorine Chemistry, 2008, 129, 978-982.	1.7	22
76	A thermostable promiscuous glucose-1-phosphate uridyltransferase from Helicobacter pylori for the synthesis of nucleotide sugars. Journal of Molecular Catalysis B: Enzymatic, 2008, 50, 13-19.	1.8	9
77	Polymer-Supported Reagents and 1Hâ€"19F NMR Couplings: The Synthesis of 2-Fluoroacetophenone. Journal of Chemical Education, 2008, 85, 834.	2.3	1
78	Protecting-Group-Based Colorimetric Monitoring of Fluorous-Phase and Solid-Phase Synthesis of Oligoglucosamines. Organic Letters, 2008, 10, 5381-5384.	4.6	38
79	Toward solution-phase automated iterative synthesis: fluorous-tag assisted solution-phase synthesis of linear and branched mannose oligomers. Organic and Biomolecular Chemistry, 2008, 6, 2686.	2.8	124
80	Glycosidase activity profiling for bacterial identification by a chemical proteomics approach. Biocatalysis and Biotransformation, 2008, 26, 25-31.	2.0	4
81	Synthesis of Fluorous Tags for Incorporation of Reducing Sugars into a Quantitative Microarray Platform. Organic Letters, 2008, 10, 785-788.	4.6	64
82	Automated Solution-Phase Oligosaccharide Synthesis and Carbohydrate Microarrays: Development of Fluorous-Based Tools for Glycomics. ACS Symposium Series, 2008, , 272-287.	0.5	18
83	Recombinant production and biochemical characterization of a hyperthermostable Î±-glucan/maltodextrin phosphorylase fromPyrococcus furiosus. Archaea, 2008, 2, 169-176.	2.3	19
84	Carbohydrate Microarrays and Fluorous-Phase Synthesis: Interfacing Fluorous-Phase Tags with the Direct Formation of Glycoarrays. ACS Symposium Series, 2007, , 261-270.	0.5	3
85	Cloning and characterization of a heat-stable CMP-N-acylneuraminic acid synthetase from Clostridium thermocellum. Applied Microbiology and Biotechnology, 2007, 76, 827-834.	3.6	19
86	Building a Bridge to New Antibiotics. ACS Chemical Biology, 2006, 1, 14-16.	3.4	2
87	Spectral and thermodynamic properties of Ag(I), Au(III), Cd(II), Co(II), Fe(III), Hg(II), Mn(II), Ni(II), Pb(II), U(IV), and Zn(II) binding by methanobactin from Methylosinus trichosporium OB3b. Journal of Inorganic Biochemistry, 2006, 100, 2150-2161.	3.5	106
88	Noncovalent fluorous interactions for the synthesis of carbohydrate microarrays. Journal of Fluorine Chemistry, 2006, 127, 571-579.	1.7	66
89	Substrate specificity of bacterial oligosaccharyltransferase suggests a common transfer mechanism for the bacterial and eukaryotic systems. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7088-7093.	7.1	177
90	Functional proteomics for the discovery of carbohydrate-related enzyme activities. Current Opinion in Chemical Biology, 2005, 9, 76-81.	6.1	14

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91	Acyclic Peptide Inhibitors of Amylases. Chemistry and Biology, 2005, 12, 1257-1258.	6.0	1
92	Fluorous-Based Carbohydrate Microarrays. Journal of the American Chemical Society, 2005, 127, 13162-13163.	13.7	229
93	Strategies for the Chemoenzymatic Synthesis of Deoxysugar Nucleotides:â€‰ Substrate Binding versus Catalysis. Journal of Organic Chemistry, 2005, 70, 1919-1921.	3.2	16
94	Platinum(II) Complex as an Artificial Peptidase:Â Selective Cleavage of Peptides and a Protein bycis-[Pt(en)(H2O)2]2+Ion under Ultraviolet and Microwave Irradiation. Inorganic Chemistry, 2005, 44, 5141-5146.	4.0	22
95	One-Step Synthesis of Labeled Sugar Nucleotides for ProteinO-GlcNAc Modification Studies by Chemical Function Analysis of an Archaeal Protein. Journal of the American Chemical Society, 2005, 127, 836-837.	13.7	26
96	General assay for sugar nucleotidyltransferases using electrospray ionization mass spectrometry. Analytical Biochemistry, 2004, 328, 196-202.	2.4	32
97	Microwave-assisted cleavage of Weinreb amide for carboxylate protection in the synthesis of a (R) Tj ETQq1 1 0.784314 rgBT /Overlock	1.4	23
98	Cellular Addresses. Chemistry and Biology, 2004, 11, 891-892.	6.0	4
99	Kinetic and substrate binding analysis of phosphorylase b via electrospray ionization mass spectrometry: a model for chemical proteomics of sugar phosphorylases. Analytical Biochemistry, 2004, 327, 107-113.	2.4	27
100	Surprising Bacterial Nucleotidyltransferase Selectivity in the Conversion of Carbaglucose-1-phosphate. Journal of the American Chemical Society, 2004, 126, 13188-13189.	13.7	46
101	Unusually Broad Substrate Tolerance of a Heat-Stable Archaeal Sugar Nucleotidyltransferase for the Synthesis of Sugar Nucleotides. Journal of the American Chemical Society, 2004, 126, 15993-15998.	13.7	60
102	Discovery of the Chemical Function of Glycosidases:â€‰ Design, Synthesis, and Evaluation of Mass-Differentiated Carbohydrate Libraries. Organic Letters, 2004, 6, 2031-2033.	4.6	30
103	Protic acid-catalyzed polymerization of Î²-lactones for the synthesis of chiral polyesters. Tetrahedron: Asymmetry, 2003, 14, 3249-3252.	1.8	35
104	Synthesis of Isobutyl-C-galactoside (IBCG) as an Isopropylthiogalactoside (IPTG) Substitute for Increased Induction of Protein Expression. Organic Letters, 2003, 5, 1781-1783.	4.6	26
105	Discovery of the Archaeal Chemical Link between Glycogen (Starch) Synthase Families Using a New Mass Spectrometry Assay. Journal of the American Chemical Society, 2003, 125, 13666-13667.	13.7	21
106	Chiral Compounds and Green Chemistry in Undergraduate Organic Laboratories: Reduction of a Ketone by Sodium Borohydride and Baker's Yeast. Journal of Chemical Education, 2002, 79, 727.	2.3	16
107	Nonnatural substrates for polyketide synthases and their associated modifying enzymes. Current Opinion in Chemical Biology, 2002, 6, 773-778.	6.1	5
108	Remarkably Broad Substrate Tolerance of Malonyl-CoA Synthetase, an Enzyme Capable of Intracellular Synthesis of Polyketide Precursors. Journal of the American Chemical Society, 2001, 123, 5822-5823.	13.7	42

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109	Cloning, Nucleotide Sequence, and Heterologous Expression of the Biosynthetic Gene Cluster for R1128, a Non-steroidal Estrogen Receptor Antagonist. Journal of Biological Chemistry, 2000, 275, 33443-33448.	3.4	86
110	Developing New Antibiotics with Combinatorial Biosynthesis. Journal of Chemical Education, 2000, 77, 1421.	2.3	5
111	Tolerance and Specificity of Recombinant 6-Methylsalicylic Acid Synthase. Metabolic Engineering, 1999, 1, 180-187.	7.0	26
112	Synthesis and Incorporation of anN-Acetylcysteamine Analogue of Methylmalonyl-CoA by a Modular Polyketide Synthase. Journal of the American Chemical Society, 1998, 120, 11206-11207.	13.7	27
113	Para-chlorobenzyl protecting groups as stabilizers of the glycosidic linkage: Synthesis of the 3â€²-O-sulfated Lewis x trisaccharide. Tetrahedron Letters, 1997, 38, 6985-6988.	1.4	35
114	Strength in numbers: non-natural polyvalent carbohydrate derivatives. Chemistry and Biology, 1996, 3, 71-77.	6.0	360
115	Selectin-Saccharide Interactions: Revealing Structure-Function Relationships with Chemical Synthesis. Journal of Organic Chemistry, 1995, 60, 6254-6255.	3.2	44