Jian Liu

List of Publications by Citations

148 papers	7,223 citations	47 h-index	80 g-index
159 ext. papers	8,043 ext. citations	7.2 avg, IF	5.85 L-index

#	Paper	IF	Citations
148	A novel role for 3-O-sulfated heparan sulfate in herpes simplex virus 1 entry. *Cell*, **1999**, 99, 13-22	56.2	844
147	Chemoenzymatic synthesis of homogeneous ultralow molecular weight heparins. *Science*, **2011**, 334, 498-501	33.3	303
146	Cell surface heparan sulfate and its roles in assisting viral infections. *Medicinal Research Reviews*, **2002**, 22, 1-25	14.4	247
145	Multiple isoforms of heparan sulfate D-glucosaminyl 3-O-sulfotransferase. Isolation, characterization, and expression of human cdnas and identification of distinct genomic loci. *Journal of Biological Chemistry*, **1999**, 274, 5170-84	5.4	189
144	Fibronectin on the Surface of Myeloma Cell-derived Exosomes Mediates Exosome-Cell Interactions. *Journal of Biological Chemistry*, **2016**, 291, 1652-1663	5.4	156
143	Homogeneous low-molecular-weight heparins with reversible anticoagulant activity. *Nature Chemical Biology*, **2014**, 10, 248-50	11.7	147
142	Molecular cloning and expression of mouse and human cDNAs encoding heparan sulfate D-glucosaminyl 3-O-sulfotransferase. *Journal of Biological Chemistry*, **1997**, 272, 28008-19	5.4	143
141	Chemoenzymatic synthesis of heparan sulfate and heparin. *Natural Product Reports*, **2014**, 31, 1676-85	15.1	142
140	Solution structures of chemoenzymatically synthesized heparin and its precursors. *Journal of the American Chemical Society*, **2008**, 130, 12998-3007	16.4	140
139	Expression of heparan sulfate D-glucosaminyl 3-O-sulfotransferase isoforms reveals novel substrate specificities. *Journal of Biological Chemistry*, **1999**, 274, 5185-92	5.4	139
138	Heparan sulfate 3-O-sulfotransferase isoform 5 generates both an antithrombin-binding site and an entry receptor for herpes simplex virus, type 1. *Journal of Biological Chemistry*, **2002**, 277, 37912-9	5.4	129
137	Chemoenzymatic design of heparan sulfate oligosaccharides. *Journal of Biological Chemistry*, **2010**, 285, 34240-9	5.4	127
136	Characterization of a heparan sulfate octasaccharide that binds to herpes simplex virus type 1 glycoprotein D. *Journal of Biological Chemistry*, **2002**, 277, 33456-67	5.4	125
135	Chemoenzymatic synthesis of glycosaminoglycans: re-creating, re-modeling and re-designing nature's longest or most complex carbohydrate chains. *Glycobiology*, **2013**, 23, 764-77	5.8	110
134	Molecular cloning and characterization of a human uronyl 2-sulfotransferase that sulfates iduronyl and glucuronyl residues in dermatan/chondroitin sulfate. *Journal of Biological Chemistry*, **1999**, 274, 10474-80	5.4	110
133	Using a 3-O-sulfated heparin octasaccharide to inhibit the entry of herpes simplex virus type 1. *Biochemistry*, **2008**, 47, 5774-83	3.2	105
132	Enzymatic redesigning of biologically active heparan sulfate. *Journal of Biological Chemistry*, **2005**, 280, 42817-25	5.4	102

131	Anticoagulant heparan sulfate: structural specificity and biosynthesis. *Applied Microbiology and Biotechnology*, **2007**, 74, 263-72	5.7	101
130	Purification of heparan sulfate D-glucosaminyl 3-O-sulfotransferase. *Journal of Biological Chemistry*, **1996**, 271, 27072-82	5.4	97
129	Using an enzymatic combinatorial approach to identify anticoagulant heparan sulfate structures. *Chemistry and Biology*, **2007**, 14, 986-93		94
128	Characterization of heparan sulphate 3-O-sulphotransferase isoform 6 and its role in assisting the entry of herpes simplex virus type 1. *Biochemical Journal*, **2005**, 385, 451-9	3.8	90
127	Recent progress and applications in glycosaminoglycan and heparin research. *Current Opinion in Chemical Biology*, **2009**, 13, 633-40	9.7	88
126	Preactivation-based, one-pot combinatorial synthesis of heparin-like hexasaccharides for the analysis of heparin-protein interactions. *Chemistry - A European Journal*, **2010**, 16, 8365-75	4.8	88
125	Anti-heparan sulfate peptides that block herpes simplex virus infection in vivo. *Journal of Biological Chemistry*, **2011**, 286, 25406-15	5.4	83
124	Heparan sulfate D-glucosaminyl 3-O-sulfotransferase-3A sulfates N-unsubstituted glucosamine residues. *Journal of Biological Chemistry*, **1999**, 274, 38155-62	5.4	83
123	Quantification of heparan sulfate disaccharides using ion-pairing reversed-phase microflow high-performance liquid chromatography with electrospray ionization trap mass spectrometry. *Analytical Chemistry*, **2009**, 81, 4349-55	7.8	79
122	The US regulatory and pharmacopeia response to the global heparin contamination crisis. *Nature Biotechnology*, **2016**, 34, 625-30	44.5	77
121	Design of biologically active heparan sulfate and heparin using an enzyme-based approach. *Natural Product Reports*, **2009**, 26, 610-27	15.1	74
120	A role for 3-O-sulfated heparan sulfate in cell fusion induced by herpes simplex virus type 1. *Journal of General Virology*, **2004**, 85, 805-809	4.9	71
119	Structural analysis of the sulfotransferase (3-o-sulfotransferase isoform 3) involved in the biosynthesis of an entry receptor for herpes simplex virus 1. *Journal of Biological Chemistry*, **2004**, 279, 45185-93	5.4	69
118	Synthetic heparin. *Current Opinion in Pharmacology*, **2012**, 12, 217-9	5.1	66
117	6-O-sulfotransferase-1 represents a critical enzyme in the anticoagulant heparan sulfate biosynthetic pathway. *Journal of Biological Chemistry*, **2001**, 276, 42311-21	5.4	65
116	Multi-faceted substrate specificity of heparanase. *Matrix Biology*, **2013**, 32, 223-7	11.4	62
115	Synthesis of 3-O-Sulfated Oligosaccharides to Understand the Relationship between Structures and Functions of Heparan Sulfate. *Journal of the American Chemical Society*, **2017**, 139, 5249-5256	16.4	61
114	Synthetic oligosaccharides can replace animal-sourced low-molecular weight heparins. *Science Translational Medicine*, **2017**, 9,	17.5	60

113	Expression of heparan sulfate sulfotransferases in Kluyveromyces lactis and preparation of 3Tphosphoadenosine-5Tphosphosulfate. *Glycobiology*, **2011**, 21, 771-80	5.8	60
112	Engineering sulfotransferases to modify heparan sulfate. *Nature Chemical Biology*, **2008**, 4, 200-2	11.7	59
111	Chemoenzymatic synthesis of heparan sulfate and heparin oligosaccharides and NMR analysis: paving the way to a diverse library for glycobiologists. *Chemical Science*, **2017**, 8, 7932-7940	9.4	58
110	Crystal structure and mutational analysis of heparan sulfate 3-O-sulfotransferase isoform 1. *Journal of Biological Chemistry*, **2004**, 279, 25789-97	5.4	58
109	Unraveling the specificity of heparanase utilizing synthetic substrates. *Journal of Biological Chemistry*, **2010**, 285, 14504-13	5.4	55
108	Enzymatic modification of heparan sulfate on a biochip promotes its interaction with antithrombin III. *Biochemical and Biophysical Research Communications*, **2000**, 276, 292-7	3.4	55
107	The dominating role of N-deacetylase/N-sulfotransferase 1 in forming domain structures in heparan sulfate. *Journal of Biological Chemistry*, **2011**, 286, 19768-76	5.4	54
106	Circulating heparan sulfate fragments mediate septic cognitive dysfunction. *Journal of Clinical Investigation*, **2019**, 129, 1779-1784	15.9	52
105	Hs3st3-modified heparan sulfate controls KIT+ progenitor expansion by regulating 3-O-sulfotransferases. *Developmental Cell*, **2014**, 29, 662-73	10.2	52
104	Uncovering biphasic catalytic mode of C5-epimerase in heparan sulfate biosynthesis. *Journal of Biological Chemistry*, **2012**, 287, 20996-1002	5.4	52
103	Chemoenzymatic synthesis of uridine diphosphate-GlcNAc and uridine diphosphate-GalNAc analogs for the preparation of unnatural glycosaminoglycans. *Journal of Organic Chemistry*, **2012**, 77, 1449-56	4.2	50
102	Using heparin molecules to manage COVID-2019. *Research and Practice in Thrombosis and Haemostasis*, **2020**, 4, 518-523	5.1	47
101	Control of the heparosan N-deacetylation leads to an improved bioengineered heparin. *Applied Microbiology and Biotechnology*, **2011**, 91, 91-9	5.7	46
100	Deciphering mode of action of heparanase using structurally defined oligosaccharides. *Journal of Biological Chemistry*, **2012**, 287, 34836-43	5.4	45
99	Chemoenzymatic synthesis of heparin oligosaccharides with both anti-factor Xa and anti-factor IIa activities. *Journal of Biological Chemistry*, **2012**, 287, 29054-61	5.4	44
98	Determination of the substrate specificities of N-acetyl-d-glucosaminyltransferase. *Biochemistry*, **2006**, 45, 12358-65	3.2	44
97	Uncovering the Relationship between Sulphation Patterns and Conformation of Iduronic Acid in Heparan Sulphate. *Scientific Reports*, **2016**, 6, 29602	4.9	42
96	Dissecting the substrate recognition of 3-O-sulfotransferase for the biosynthesis of anticoagulant heparin. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 5265-70	11.5	42

95	Inhibition or activation of Apert syndrome FGFR2 (S252W) signaling by specific glycosaminoglycans. *Journal of Biological Chemistry*, **2006**, 281, 6924-30	5.4	42
94	Enzymatic synthesis of glycosaminoglycan heparin. *Seminars in Thrombosis and Hemostasis*, **2007**, 33, 453-65	5.3	40
93	Biosynthesis of 3-O-sulfated heparan sulfate: unique substrate specificity of heparan sulfate 3-O-sulfotransferase isoform 5. *Glycobiology*, **2003**, 13, 785-94	5.8	40
92	3-O-Sulfation of Heparan Sulfate Enhances Tau Interaction and Cellular Uptake. *Angewandte Chemie - International Edition*, **2020**, 59, 1818-1827	16.4	40
91	Redirecting the substrate specificity of heparan sulfate 2-O-sulfotransferase by structurally guided mutagenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 18724-9	11.5	39
90	Enzymatic synthesis of heparin related polysaccharides on sensor chips: rapid screening of heparin-protein interactions. *Biochemical and Biophysical Research Communications*, **2006**, 339, 597-602	3.4	39
89	Expanding the 3-O-Sulfate Proteome--Enhanced Binding of Neuropilin-1 to 3-O-Sulfated Heparan Sulfate Modulates Its Activity. *ACS Chemical Biology*, **2016**, 11, 971-80	4.9	38
88	Enzymatic Synthesis of Homogeneous Chondroitin Sulfate Oligosaccharides. *Angewandte Chemie - International Edition*, **2017**, 56, 11784-11787	16.4	38
87	Characterization of the N-deacetylase domain from the heparan sulfate N-deacetylase/N-sulfotransferase 2. *Biochemical and Biophysical Research Communications*, **2006**, 339, 1232-7	3.4	38
86	Controlled Chemoenzymatic Synthesis of Heparan Sulfate Oligosaccharides. *Angewandte Chemie - International Edition*, **2018**, 57, 5340-5344	16.4	37
85	Divergent Synthesis of Heparan Sulfate Oligosaccharides. *Journal of Organic Chemistry*, **2015**, 80, 12265-79	4.2	37
84	The principal neuronal gD-type 3-O-sulfotransferases and their products in central and peripheral nervous system tissues. *Matrix Biology*, **2007**, 26, 442-55	11.4	37
83	Heparosan-derived heparan sulfate/heparin-like compounds: one kind of potential therapeutic agents. *Medicinal Research Reviews*, **2013**, 33, 665-92	14.4	36
82	Structural Analysis of Heparin-Derived 3-O-Sulfated Tetrasaccharides: Antithrombin Binding Site Variants. *Journal of Pharmaceutical Sciences*, **2017**, 106, 973-981	3.9	33
81	Molecular mechanism of substrate specificity for heparan sulfate 2-O-sulfotransferase. *Journal of Biological Chemistry*, **2014**, 289, 13407-18	5.4	33
80	Use of biosynthetic enzymes in heparin and heparan sulfate synthesis. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 4786-92	3.4	33
79	Strategy for the sequence analysis of heparin. *Glycobiology*, **1995**, 5, 765-74	5.8	33
78	Circulating heparin oligosaccharides rapidly target the hippocampus in sepsis, potentially impacting cognitive functions. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 9208-9213	11.5	32

77	Epitope mapping by a Wnt-blocking antibody: evidence of the Wnt binding domain in heparan sulfate. *Scientific Reports*, **2016**, 6, 26245	4.9	32
76	Anticoagulant heparan sulfate precursor structures in F9 embryonal carcinoma cells. *Journal of Biological Chemistry*, **1999**, 274, 5681-91	5.4	32
75	The biosynthesis of anticoagulant heparan sulfate by the heparan sulfate 3-O-sulfotransferase isoform 5. *Biochimica Et Biophysica Acta - General Subjects*, **2004**, 1671, 34-43	4	31
74	Probing structural selectivity of synthetic heparin binding to Stabilin protein receptors. *Journal of Biological Chemistry*, **2012**, 287, 20774-83	5.4	30
73	Construction and characterisation of a heparan sulphate heptasaccharide microarray. *Chemical Communications*, **2017**, 53, 1743-1746	5.8	29
72	Heparan Sulfate Domains Required for Fibroblast Growth Factor 1 and 2 Signaling through Fibroblast Growth Factor Receptor 1c. *Journal of Biological Chemistry*, **2017**, 292, 2495-2509	5.4	29
71	Understanding the substrate specificity of the heparan sulfate sulfotransferases by an integrated biosynthetic and crystallographic approach. *Current Opinion in Structural Biology*, **2012**, 22, 550-7	8.1	29
70	The retinoic acid and cAMP-dependent up-regulation of 3-O-sulfotransferase-1 leads to a dramatic augmentation of anticoagulantly active heparan sulfate biosynthesis in F9 embryonal carcinoma cells. *Journal of Biological Chemistry*, **1998**, 273, 27998-8003	5.4	29
69	Chemoenzymatic synthesis and structural characterization of 2-O-sulfated glucuronic acid-containing heparan sulfate hexasaccharides. *Glycobiology*, **2014**, 24, 681-92	5.8	26
68	Structure Based Substrate Specificity Analysis of Heparan Sulfate 6-O-Sulfotransferases. *ACS Chemical Biology*, **2017**, 12, 73-82	4.9	26
67	Analysis of the interaction between adeno-associated virus and heparan sulfate using atomic force microscopy. *Glycobiology*, **2004**, 14, 969-77	5.8	25
66	Shotgun ion mobility mass spectrometry sequencing of heparan sulfate saccharides. *Nature Communications*, **2020**, 11, 1481	17.4	24
65	Cell-free Synthesis of Anticoagulant Heparan Sulfate Reveals a Limiting Converting Activity That Modifies an Excess Precursor Pool. *Journal of Biological Chemistry*, **1996**, 271, 27063-27071	5.4	24
64	Synthesis of uridine 5′diphosphoiduronic acid: a potential substrate for the chemoenzymatic synthesis of heparin. *Journal of Organic Chemistry*, **2008**, 73, 7631-7	4.2	22
63	Mutational study of heparan sulfate 2-O-sulfotransferase and chondroitin sulfate 2-O-sulfotransferase. *Journal of Biological Chemistry*, **2007**, 282, 8356-67	5.4	22
62	Using structurally defined oligosaccharides to understand the interactions between proteins and heparan sulfate. *Current Opinion in Structural Biology*, **2018**, 50, 155-161	8.1	21
61	Expedient Synthesis of Core Disaccharide Building Blocks from Natural Polysaccharides for Heparan Sulfate Oligosaccharide Assembly. *Angewandte Chemie - International Edition*, **2019**, 58, 18577-18583	16.4	21
60	Directing the biological activities of heparan sulfate oligosaccharides using a chemoenzymatic approach. *Glycobiology*, **2012**, 22, 96-106	5.8	21

59	Design of anti-inflammatory heparan sulfate to protect against acetaminophen-induced acute liver failure. *Science Translational Medicine*, **2020**, 12,	17.5	20
58	Fibroblast growth factor-based signaling through synthetic heparan sulfate blocks copolymers studied using high cell density three-dimensional cell printing. *Journal of Biological Chemistry*, **2014**, 289, 9754-65	5.4	20
57	Substrate specificity of 6-O-endosulfatase (Sulf-2) and its implications in synthesizing anticoagulant heparan sulfate. *Glycobiology*, **2012**, 22, 1353-62	5.8	20
56	Affinity, kinetic, and structural study of the interaction of 3-O-sulfotransferase isoform 1 with heparan sulfate. *Biochemistry*, **2006**, 45, 5122-8	3.2	20
55	2-O-Sulfated Domains in Syndecan-1 Heparan Sulfate Inhibit Neutrophil Cathelicidin and Promote Staphylococcus aureus Corneal Infection. *Journal of Biological Chemistry*, **2015**, 290, 16157-67	5.4	19
54	Role of Deacetylase Activity of N-Deacetylase/N-Sulfotransferase 1 in Forming N-Sulfated Domain in Heparan Sulfate. *Journal of Biological Chemistry*, **2015**, 290, 20427-37	5.4	19
53	Towards the chemoenzymatic synthesis of heparan sulfate oligosaccharides: Oxidative cleavage of -nitrophenyl group with ceric ammonium salts. *Tetrahedron Letters*, **2013**, 54, 4471-4474	2	17
52	Expression of chondroitin-4-O-sulfotransferase in Escherichia coli and Pichia pastoris. *Applied Microbiology and Biotechnology*, **2017**, 101, 6919-6928	5.7	17
51	Gas-Phase Analysis of the Complex of Fibroblast GrowthFactor 1 with Heparan Sulfate: A Traveling Wave Ion Mobility Spectrometry (TWIMS) and Molecular Modeling Study. *Journal of the American Society for Mass Spectrometry*, **2017**, 28, 96-109	3.5	17
50	Using engineered 2-O-sulfotransferase to determine the activity of heparan sulfate C5-epimerase and its mutants. *Journal of Biological Chemistry*, **2010**, 285, 11106-13	5.4	17
49	Syndecan-1 limits the progression of liver injury and promotes liver repair in acetaminophen-induced liver injury in mice. *Hepatology*, **2017**, 66, 1601-1615	11.2	15
48	Enzymatic placement of 6-O-sulfo groups in heparan sulfate. *Biochemistry*, **2011**, 50, 4382-91	3.2	15
47	Characterization of the structure of antithrombin-binding heparan sulfate generated by heparan sulfate 3-O-sulfotransferase 5. *Biochimica Et Biophysica Acta - General Subjects*, **2005**, 1725, 190-200	4	15
46	Molecular mechanisms of heparin-induced modulation of human interleukin 12 bioactivity. *Journal of Biological Chemistry*, **2019**, 294, 4412-4424	5.4	14
45	Facile chemoenzymatic synthesis of biotinylated heparosan hexasaccharide. *Organic and Biomolecular Chemistry*, **2015**, 13, 5098-101	3.9	14
44	De novo synthesis of a narrow size distribution low-molecular-weight heparin. *Glycobiology*, **2014**, 24, 476-86	5.8	14
43	Discovery of a Small-Molecule Modulator of Glycosaminoglycan Sulfation. *ACS Chemical Biology*, **2017**, 12, 3126-3133	4.9	14
42	Assays for determining heparan sulfate and heparin O-sulfotransferase activity and specificity. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 525-36	4.4	14

41	Chemoenzymatic synthesis of unmodified heparin oligosaccharides: cleavage of p-nitrophenyl glucuronide by alkaline and Smith degradation. *Organic and Biomolecular Chemistry*, **2017**, 15, 1222-1227	3.9	13
40	Application of chiral materials in electrochemical sensors. *Mikrochimica Acta*, **2020**, 187, 676	5.8	13
39	A conformational change in heparan sulfate 3-O-sulfotransferase-1 is induced by binding to heparan sulfate. *Biochemistry*, **2004**, 43, 4680-8	3.2	11
38	Expression in Escherichia coli, purification and kinetic characterization of human heparan sulfate 3-O-sulfotransferase-1. *Biochemical and Biophysical Research Communications*, **2002**, 290, 1206-13	3.4	11
37	Enzymatic Synthesis of Chondroitin Sulfate E to Attenuate Bacteria Lipopolysaccharide-Induced Organ Damage. *ACS Central Science*, **2020**, 6, 1199-1207	16.8	10
36	Chemoenzymatic synthesis of heparan sulfate and heparin. *Biocatalysis and Biotransformation*, **2012** , 30, 296-308	2.5	9
35	Recombinant dermatan sulfate is a potent activator of heparin cofactor II-dependent inhibition of thrombin. *Glycobiology*, **2019**, 29, 446-451	5.8	8
34	Downstream Products are Potent Inhibitors of the Heparan Sulfate 2-O-Sulfotransferase. *Scientific Reports*, **2018**, 8, 11832	4.9	8
33	Neutralizing the anticoagulant activity of ultra-low-molecular-weight heparins using N-acetylglucosamine 6-sulfatase. *FEBS Journal*, **2013**, 280, 2523-32	5.7	8
32	Design and synthesis of active heparan sulfate-based probes. *Chemical Communications*, **2015**, 51, 11019-11021	5.8	7
31	Enzymatic Synthesis of Homogeneous Chondroitin Sulfate Oligosaccharides. *Angewandte Chemie*, **2017**, 129, 11946-11949	3.6	7
30	Insights into the role of 3-O-sulfotransferase in heparan sulfate biosynthesis. *Organic and Biomolecular Chemistry*, **2017**, 15, 6792-6799	3.9	7
29	Synthesis of 3--Sulfated Disaccharide and Tetrasaccharide Standards for Compositional Analysis of Heparan Sulfate. *Biochemistry*, **2020**, 59, 3186-3192	3.2	7
28	Investigation of the biological functions of heparan sulfate using a chemoenzymatic synthetic approach. *RSC Chemical Biology*, **2021**, 2, 702-712	3	7
27	Degeneracy of the Antithrombin Binding Sequence in Heparin: 2-O-Sulfated Iduronic Acid Can Replace the Critical Glucuronic Acid. *Chemistry - A European Journal*, **2020**, 26, 11814-11818	4.8	6
26	Controlled Chemoenzymatic Synthesis of Heparan Sulfate Oligosaccharides. *Angewandte Chemie*, **2018**, 130, 5438-5442	3.6	6
25	Investigation of the substrate specificity of K5 lyase A from K5A bacteriophage. *Glycobiology*, **2013**, 23, 132-41	5.8	6
24	N-sulfotestosteronan, a novel substrate for heparan sulfate 6-O-sulfotransferases and its analysis by oxidative degradation. *Biopolymers*, **2013**, 99, 675-85	2.2	5

23	Structure, Biosynthesis, and Function of Glycosaminoglycans **2010**, 407-427		5
22	Quantitative analysis of heparan sulfate using isotopically labeled calibrants. *Communications Biology*, **2020**, 3, 425	6.7	5
21	Expedient Synthesis of Core Disaccharide Building Blocks from Natural Polysaccharides for Heparan Sulfate Oligosaccharide Assembly. *Angewandte Chemie*, **2019**, 131, 18750-18756	3.6	4
20	Heparan Sulfate D-Glucosaminyl 3-O-Sulfotransferase-1, -2, -3, and -4 **2002**, 475-483		4
19	Characterization of the interaction between platelet factor 4 and homogeneous synthetic low molecular weight heparins. *Journal of Thrombosis and Haemostasis*, **2020**, 18, 390-398	15.4	4
18	Synthetic anticoagulant heparan sulfate attenuates liver ischemia reperfusion injury. *Scientific Reports*, **2020**, 10, 17187	4.9	4
17	Advances in Clinical and Basic Science of Coagulation: Illustrated abstracts of the 9th Chapel Hill Symposium on Hemostasis. *Research and Practice in Thrombosis and Haemostasis*, **2018**, 2, 407-428	5.1	3
16	Using engineered 6--sulfotransferase to improve the synthesis of anticoagulant heparin. *Organic and Biomolecular Chemistry*, **2020**, 18, 8094-8102	3.9	3
15	Potential Use of Anti-Inflammatory Synthetic Heparan Sulfate to Attenuate Liver Damage. *Biomedicines*, **2020**, 8,	4.8	3
14	Construction of heparan sulfate microarray for investigating the binding of specific saccharide sequences to proteins. *Glycobiology*, **2021**, 31, 188-199	5.8	3
13	Comparison of angiopoietin-like protein 3 and 4 reveals structural and mechanistic similarities. *Journal of Biological Chemistry*, **2021**, 296, 100312	5.4	3
12	Deciphering the substrate recognition mechanisms of the heparan sulfate 3--sulfotransferase-3. *RSC Chemical Biology*, **2021**, 2, 1239-1248	3	3
11	Enzymatic Synthesis of Heparin **2010**, 259-277		2
10	Synthesis of 3--Sulfated Heparan Sulfate Oligosaccharides Using 3--Sulfotransferase Isoform 4. *ACS Chemical Biology*, **2021**, 16, 2026-2035	4.9	2
9	A rechargeable anti-thrombotic coating for blood-contacting devices. *Biomaterials*, **2021**, 276, 121011	15.6	2
8	Structural and substrate specificity analysis of 3--sulfotransferase isoform 5 to synthesize heparan sulfate.. *ACS Catalysis*, **2021**, 11, 14956-14966	13.1	1
7	Enzyme-Based Methods to Synthesize Homogeneous Glycosaminoglycan Oligosaccharides **2021**, 706-714		1
6	Heparan Sulfate (Glucosamine) 3-O-Sulfotransferase 1-6 (HS3ST1-6) **2014**, 1081-1089		0

5	3-O-Sulfation of Heparan Sulfate Enhances Tau Interaction and Cellular Uptake. *Angewandte Chemie*, **2020**, 132, 1834-1843	3.6	0
4	Improving the Sensitivity for Quantifying Heparan Sulfate from Biological Samples. *Analytical Chemistry*, **2021**, 93, 11191-11199	7.8	0
3	Complex Natural Product Heparin: Biosynthesis, Biology, and Application via Synthetic Heparins. *AAPS Advances in the Pharmaceutical Sciences Series*, **2019**, 45-58	0.5	
2	CHEMOENZYMATIC SYNTHESIS OF CARBOHYDRATES **2016**, 221-233		
1	Chemoenzymatic Synthesis of D-Glucaro-1,4-lactam Containing Oligosaccharides as Putative Heparanase Inhibitors. *ChemistrySelect*, **2021**, 6, 11690-11695	1.8	