## Narayanaswamy Jayaraman

List of Publications by Year in descending order

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159525 214721 2,717 127 30 47 citations g-index h-index papers 135 135 135 2891 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Anomeric alkylations and acylations of unprotected mono- and disaccharides mediated by pyridoneimine in aqueous solutions. Chemical Communications, 2022, 58, 2224-2227.	2.2	5
2	Pyridoneimine-catalyzed anomeric aqueous oxa-Michael additions of native mono- and disaccharides. Carbohydrate Research, 2022, 520, 108610.	1.1	1
3	Chiral self-assembly of bolaamphiphilic sugar-terphenyl-sugar constructs. Materials Today Chemistry, 2022, 26, 101026.	1.7	1
4	Surface Ligand Density Switches Glycovesicles between Monomeric and Multimeric Lectin Recognition. ChemBioChem, 2021, 22, 485-490.	1.3	5
5	Efficient facilitated transport PETIM dendrimer-PVA-PEG/PTFE composite flat-bed membranes for selective removal of CO2. Journal of Membrane Science, 2021, 622, 119007.	4.1	7
6	Display of Rich Reactivities of <i>Endo</i> ―and <i>Exocyclic</i> Unsaturated Sugars that Parallel the Native Sugars. Chemical Record, 2021, 21, 3049-3062.	2.9	3
7	Surface Density of Ligands Controls Inâ€Plane and Aggregative Modes of Multivalent Glycovesicleâ€Lectin Recognitions. ChemBioChem, 2021, 22, 3075-3081.	1.3	3
8	Strain rate and temperature dependence of collapse pressure in Langmuir monolayer of cholesteryl dimers. Thin Solid Films, 2021, 735, 138900.	0.8	1
9	Aglycon reactivity as a guiding principle in latent-active approach to chemical glycosylations. Carbohydrate Research, 2021, 508, 108404.	1.1	6
10	Carbon tetrachloride-free allylic halogenation-mediated glycosylations of allyl glycosides. Organic and Biomolecular Chemistry, 2021, 19, 9318-9325.	1.5	2
11	The barley lectin, horcolin, binds high-mannose glycans in a multivalent fashion, enabling high-affinity, specific inhibition of cellular HIV infection. Journal of Biological Chemistry, 2020, 295, 12111-12129.	1.6	8
12	Glycoconjugations of Biomolecules by Chemical Methods. Frontiers in Chemistry, 2020, 8, 570185.	1.8	18
13	Potent HCV NS3 Protease Inhibition by a Water-Soluble Phyllanthin Congener. ACS Omega, 2020, 5, 11553-11562.	1.6	3
14	Advancements in synthetic and structural studies of septanoside sugars., 2020,, 217-251.		3
15	Mesomorphic Sugarâ€Coated Polydiacetylene Polymers. Macromolecular Chemistry and Physics, 2020, 221, 1900451.	1.1	2
16	Sugar Vinyl Sulfoxide Glycoconjugation of Peptides and Lysozyme: Abrogation of Proteolysis at the Lysine Sites. Biochemistry, 2019, 58, 3561-3565.	1.2	7
17	One-pot oligosaccharide synthesis: latent-active method of glycosylations and radical halogenation activation of allyl glycosides. Pure and Applied Chemistry, 2019, 91, 1451-1470.	0.9	7
18	Mannopyranoside Glycolipids Inhibit Mycobacterial and Biofilm Growth and Potentiate Isoniazid Inhibition Activities in M.â€smegmatis. ChemBioChem, 2019, 20, 1966-1976.	1.3	3

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19	Radical halogenation-mediated latent–active glycosylations of allyl glycosides. Chemical Communications, 2018, 54, 588-590.	2.2	9
20	Glycosidic Bond Expanded Cyclic Oligosaccharides: Synthesis and Host–Guest Binding Property of a Cyclic Pentasaccharide. ACS Omega, 2018, 3, 7466-7473.	1.6	5
21	Opening of large band gaps in metallic carbon nanotubes by mannose-functionalized dendrimers: experiments and theory. Journal of Materials Chemistry C, 2018, 6, 6483-6488.	2.7	10
22	Synthetic (p)ppGpp Analogue Is an Inhibitor of Stringent Response in Mycobacteria. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	47
23	Semiconducting Conjugated Microporous Polymer: An Electrode Material for Photoelectrochemical Water Splitting and Oxygen Reduction. ChemistrySelect, 2017, 2, 4522-4532.	0.7	34
24	Successive outermost-to-core shell directionality of the protonation of poly(propyl ether imine) dendritic gene delivery vectors. Canadian Journal of Chemistry, 2017, 95, 965-974.	0.6	0
25	Visual Detection of pH and Biomolecular Interactions at Micromolar Concentrations Aided by a Trivalent Diacetylene-Based Vesicle. Macromolecular Chemistry and Physics, 2017, 218, 1700039.	1.1	6
26	Connector typeâ€controlled mesophase structures in poly(propyl ether imine) dendritic liquid crystals of identical dendrimer generations. Journal of Polymer Science Part A, 2017, 55, 3665-3678.	2.5	8
27	Synthetic Arabinomannan Heptasaccharide Glycolipids Inhibit Biofilm Growth and Augment Isoniazid Effects in <i>Mycobacterium smegmatis</i> ChemBioChem, 2017, 18, 1959-1970.	1.3	10
28	2016 Nobel Prize in Chemistry. Resonance, 2017, 22, 835-845.	0.2	0
29	Synthesis and Structure of Cyclic Trisaccharide with Expanded Glycosidic Linkages. Journal of Organic Chemistry, 2016, 81, 4616-4622.	1.7	8
30	In-plane modulated smectic Ãf vs smectic  A' lamellar structures in poly(ethyl or propyl ether imine) dendrimers. Polymer, 2016, 86, 98-104.	1.8	2
31	Dendritic bis- and tetrakis-iminodiacetic acid-boronate complexes in one-pot cross-coupling reactions. Journal of Organometallic Chemistry, 2016, 819, 138-146.	0.8	1
32	Multicolor Reversible Thermochromic Properties of Gallic Acid-Cored Polydiacetylenes Appended with Poly(alkyl aryl ether) Dendrons. Macromolecular Chemistry and Physics, 2016, 217, 940-950.	1.1	12
33	Synthetic arabinomannan glycolipids impede mycobacterial growth, sliding motility and biofilm structure. Glycoconjugate Journal, 2016, 33, 763-777.	1.4	17
34	A dendrimer facilitates resonance energy transfer between hydrophobic aromatic guest molecules in water. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 317, 125-131.	2.0	1
35	Solid state structure of p-bromo phenyl 4,5,7-tri-O-benzyl-Î <sup>2</sup> -d-glycero-d-talo-septanoside and an analysis of non-covalent interactions. Carbohydrate Research, 2015, 410, 9-14.	1.1	4
36	Synthetic Glycolipids and (p)ppGpp Analogs: Development of Inhibitors for Mycobacterial Growth, Biofilm and Stringent Response. Advances in Experimental Medicine and Biology, 2015, 842, 309-327.	0.8	16

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37	A galactose-functionalized dendritic siRNA-nanovector to potentiate hepatitis C inhibition in liver cells. Nanoscale, 2015, 7, 16921-16931.	2.8	29
38	Analysis of the conformations of septanoside sugars. Pure and Applied Chemistry, 2014, 86, 1401-1419.	0.9	11
39	27th International Carbohydrate Symposium (ICS-27). Pure and Applied Chemistry, 2014, 86, 1321-1321.	0.9	2
40	Multivalent dendritic catalysts in organometallic catalysis. Inorganica Chimica Acta, 2014, 409, 34-52.	1.2	26
41	Exclusive ring opening of gem-dihalo-1,2-cyclopropanated oxyglycal to oxepines in AgOAc. Carbohydrate Research, 2014, 389, 66-71.	1.1	19
42	Backbone-modified amphiphilic cyclic di- and tetrasaccharides. Chemical Communications, 2014, 50, 8554-8557.	2.2	15
43	Photocatalytic disassembly of tertiary amine-based dendrimers to monomers and their application to the †catch and release†of a dye in aqueous solution. New Journal of Chemistry, 2014, 38, 3358-3361.	1.4	3
44	Covalent assembly-disassembly of poly(ether imine) dendritic macromolecular monomers and megamers. Polymer, 2014, 55, 5102-5110.	1.8	2
45	Dense network of OHâc and CHâc interactions in the solid state structure of n-pentyl-2-chloro-2-deoxy-α-d-manno-sept 3-uloside. Carbohydrate Research, 2014, 393, 37-42.	1.1	8
46	Glycosidic bond hydrolysis in septanosides: a comparison of mono-, di-, and 2-chloro-2-deoxy-septanosides. Carbohydrate Research, 2014, 399, 49-56.	1.1	16
47	Efficient Dendrimer–DNA Complexation and Gene Delivery Vector Properties of Nitrogen-Core Poly(propyl ether imine) Dendrimer in Mammalian Cells. Bioconjugate Chemistry, 2013, 24, 1612-1623.	1.8	50
48	Photophysical behavior of poly(propyl ether imine) dendrimer in the presence of nitroaromatic compounds. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 253, 1-6.	2.0	7
49	Facial selectivities in the nucleophilic additions of 2,3-unsaturated 3-arylsulfinyl pyranosides. Carbohydrate Research, 2013, 380, 51-58.	1.1	7
50	Multivalent glycoliposomes and micelles to study carbohydrate–protein and carbohydrate–carbohydrate interactions. Chemical Society Reviews, 2013, 42, 4640.	18.7	116
51	Synthetic arabinan, arabinomannan glycolipids and their effects on mycobacterial growth, sliding motility and biofilm formation. Carbohydrate Chemistry, 2013, , 58-77.	0.3	4
52	Detection of sugar-lectin interactions by multivalent dendritic sugar functionalized single-walled carbon nanotubes. Applied Physics Letters, 2012, 101, 053701.	1.5	14
53	Synthesis of 2-Deoxy-2-C-alkyl Glycal and Glycopyranosides from 2-Hydroxy Glycal Ester. Journal of Organic Chemistry, 2012, 77, 2185-2191.	1.7	4
54	Efficacies of multivalent vs monovalent poly(ether imine) dendritic catalysts within a generation in multiple C–C bond forming reactions. Journal of Organometallic Chemistry, 2012, 701, 27-35.	0.8	11

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55	Self assembly of bivalent glycolipids on single walled carbon nanotubes and their specific molecular recognition properties. RSC Advances, 2012, 2, 1329.	1.7	11
56	2,3-Unsaturated enoses. A Pummerer rearrangement route to sugar vinyl sulfides and synthesis of 3-deoxy-3-alkyl/arylsulfinyl pyranosides. Tetrahedron, 2012, 68, 8746-8752.	1.0	13
57	Branching out at C-2 of septanosides. Synthesis of 2-deoxy-2-C-alkyl/aryl septanosides from a bromo-oxepine. Beilstein Journal of Organic Chemistry, 2012, 8, 522-527.	1.3	22
58	Dynamic Internal Cavities of Dendrimers as Constrained Media. A Study of Photochemical Isomerizations of Stilbene and Azobenzene Using Poly(alkyl aryl ether) Dendrimers. Journal of Organic Chemistry, 2012, 77, 2219-2224.	1.7	14
59	Synthesis of $\hat{l}^2$ -arabinofuranoside glycolipids, studies of their binding to surfactant protein-A and effect on sliding motilities of M. smegmatis. Glycoconjugate Journal, 2012, 29, 107-118.	1.4	13
60	Ionic conductivity of bis (2-cyanoethyl) ether-lithium salt and poly (propylether imine)-lithium salt liquid electrolytes. Journal of Polymer Research, 2012, $19,1.$	1.2	4
61	Dendritic Poly(ether imine) Based Gene Delivery Vector. Bioconjugate Chemistry, 2011, 22, 115-119.	1.8	25
62	Interfacial Regions Governing Internal Cavities of Dendrimers. Studies of Poly(alkyl aryl ether) Dendrimers Constituted with Linkers of Varying Alkyl Chain Length. Journal of Organic Chemistry, 2011, 76, 4018-4026.	1.7	20
63	Increased glycosidic bond stabilities in 4-C-hydroxymethyl linked disaccharides. Carbohydrate Research, 2011, 346, 2394-2400.	1.1	5
64	Molecule matters. Resonance, 2011, 16, 1246-1253.	0.2	0
65	Reactivity switching and selective activation of C-1 or C-3 in 2,3-unsaturated thioglycosides. Carbohydrate Research, 2011, 346, 1569-1575.	1.1	12
66	Synthesis and studies of Rh(I) catalysts within and across poly(alkyl aryl ether) dendrimers. Journal of Organometallic Chemistry, 2011, 696, 722-730.	0.8	16
67	Interaction of single-walled carbon nanotubes with poly(propyl ether imine) dendrimers. Journal of Chemical Physics, 2011, 134, 104507.	1.2	20
68	Synthesis, biological studies of linear and branched arabinofuranoside-containing glycolipids and their interaction with surfactant protein A. Glycobiology, 2011, 21, 1237-1254.	1.3	18
69	Role of hydroxyl group on the mesomorphism of alkyl glycosides: synthesis and thermal behavior of alkyl 6-deoxy-β-d-glucopyranosides. Chemistry and Physics of Lipids, 2010, 163, 580-585.	1.5	9
70	Poly propyl ether imine (PETIM) dendrimer: A novel non-toxic dendrimer for sustained drug delivery. European Journal of Medicinal Chemistry, 2010, 45, 4997-5005.	2.6	55
71	Ring Expansion of Oxyglycals. Synthesis and Conformational Analysis of Septanoside-Containing Trisaccharides. Journal of Organic Chemistry, 2010, 75, 215-218.	1.7	38
72	Synthetic arabinomannan glycolipids and their effects on growth and motility of the Mycobacterium smegmatis. Organic and Biomolecular Chemistry, 2010, 8, 592-599.	1.5	17

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73	Increased Efficacies of an Individual Catalytic Site in Clustered Multivalent Dendritic Catalysts. Advanced Synthesis and Catalysis, 2009, 351, 2379-2390.	2.1	18
74	Preparation and catalytic studies of palladium nanoparticles stabilized by dendritic phosphine ligand-functionalized silica. Journal of Molecular Catalysis A, 2009, 307, 142-148.	4.8	34
75	Synthesis of 2-deoxy cyclic and linear oligosaccharides by oligomerization of monomers. Carbohydrate Research, 2009, 344, 177-186.	1.1	10
76	Crystal structures and thermal analyses of alkyl 2-deoxy-α-d-arabino-hexopyranosides. Carbohydrate Research, 2009, 344, 1993-1998.	1.1	10
77	Multivalent ligand presentation as a central concept to study intricate carbohydrate–protein interactions. Chemical Society Reviews, 2009, 38, 3463.	18.7	202
78	Thiolâ^'Disulfide Interchange Mediated Reversible Dendritic Megamer Formation and Dissociation. Macromolecules, 2009, 42, 7353-7359.	2.2	18
79	Synthesis of Aryl, Glycosyl, and Azido Septanosides through Ring Expansion of 1,2-Cyclopropanated Sugars. Journal of Organic Chemistry, 2009, 74, 739-746.	1.7	37
80	SPR and ITC determination of the kinetics and the thermodynamics of bivalent versus monovalent sugar ligand–lectin interactions. Glycoconjugate Journal, 2008, 25, 313-321.	1.4	36
81	A kinetic analysis of the tumor-associated galactopyranoside antigenâ€"lectin interaction. Journal of Chemical Sciences, 2008, 120, 195-203.	0.7	5
82	Manifestation of a Chiral Smectic C Phase in Diphenylbutadieneâ€Cored Bolaamphiphilic Sugars. Advanced Functional Materials, 2008, 18, 1632-1640.	7.8	17
83	Synthesis of 2-deoxy-d-arabino/lyxo-hexopyranosyl disaccharides. Carbohydrate Research, 2008, 343, 453-461.	1.1	6
84	Effect of the C-2 hydroxyl group on the mesomorphism of alkyl glycosides: synthesis and thermotropic behavior of alkyl 2-deoxy-d-arabino-hexopyranosides. Chemistry and Physics of Lipids, 2008, 155, 90-97.	1.5	6
85	Synthesis and mycobacterial growth inhibition activities of bivalent and monovalent arabinofuranoside containing alkyl glycosides. Organic and Biomolecular Chemistry, 2008, 6, 2388.	1.5	14
86	Inherent Photoluminescence Properties of Poly(propyl ether imine) Dendrimers. Organic Letters, 2008, 10, 9-12.	2.4	59
87	Synthesis of Septanosides through an Oxyglycal Route. Journal of Organic Chemistry, 2007, 72, 5500-5504.	1.7	58
88	Synthesis of aryl-2-deoxy-d-lyxo/arabino-hexopyranosides from 2-deoxy-1-thioglycosides. Carbohydrate Research, 2007, 342, 1305-1314.	1.1	14
89	Aggregation and photoresponsive behavior of azobenzene–oligomethylene–glucopyranoside bolaamphiphiles. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 405-413.	2.0	19
90	Studies of the mesomorphic behavior of bivalent carbohydrate amphiphiles. Journal of Materials Chemistry, 2007, 17, 2228.	6.7	14

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91	Molecule matters. Resonance, 2007, 12, 60-66.	0.2	1
92	Evaluation of α-d-mannopyranoside glycolipid micelles–lectin interactions by surface plasmon resonance method. Glycobiology, 2006, 16, 822-832.	1.3	41
93	Efficient halogen–lithium exchange reactions to functionalize poly(alkyl aryl ether) dendrimers. Tetrahedron, 2006, 62, 6228-6235.	1.0	5
94	Synthesis of large generation poly(propyl ether imine) (PETIM) dendrimers. Tetrahedron, 2006, 62, 9582-9588.	1.0	40
95	Structure of poly(propyl ether imine) dendrimer from fully atomistic molecular dynamics simulation and by small angle x-ray scattering. Journal of Chemical Physics, 2006, 124, 204719.	1.2	51
96	Synthesis and biological evaluation of 3-amino-propan-1-ol based poly(ether imine) dendrimers. Tetrahedron, 2005, 61, 4281-4288.	1.0	34
97	Synthesis and reactivity profiles of phosphinated poly(alkyl aryl ether) dendrimers. Tetrahedron, 2005, 61, 11184-11191.	1.0	12
98	Observation of a Chiral Smectic Phase in Azobenzene-Linked Bolaamphiphiles Containing Free Sugars. Advanced Functional Materials, 2005, 15, 1579-1584.	7.8	37
99	Inside Front Cover: Observation of a Chiral Smectic Phase in Azobenzene-Linked Bolaamphiphiles Containing Free Sugars (Adv. Funct. Mater. 10/2005). Advanced Functional Materials, 2005, 15, NA-NA.	7.8	0
100	Hyperglycosylation of glycopeptidolipid of Mycobacterium smegmatis under nutrient starvation: structural studies. Microbiology (United Kingdom), 2005, 151, 2385-2392.	0.7	32
101	Aggregation and mesomorphic properties of  double-headed' carbohydrate amphiphiles. Phase Transitions, 2005, 78, 529-535.	0.6	2
102	Photoswitchable cluster glycosides as tools to probe carbohydrate–protein interactions: synthesis and lectin-binding studies of azobenzene containing multivalent sugar ligands. Glycobiology, 2005, 15, 861-873.	1.3	50
103	Dendrimers as Photochemical Reaction Media. Photochemical Behavior of Unimolecular and Bimolecular Reactions in Water-Soluble Dendrimers. Journal of Organic Chemistry, 2005, 70, 5062-5069.	1.7	41
104	Synthesis and Langmuir Studies of Bivalent and Monovalent $\hat{l}_{\pm}$ -d-Mannopyranosides with Lectin Con A. Langmuir, 2005, 21, 9591-9596.	1.6	21
105	Synthesis and biological evaluation of mannose-6-phosphate-coated multivalent dendritic cluster glycosides. Organic and Biomolecular Chemistry, 2005, 3, 4252.	1.5	14
106	Crystal structure of N-(benzyloxycarbonyl)aminoethyl-2,3,4,6-tetra-O-benzoyl-α-d-mannopyranoside: stabilization of the crystal lattice by a tandem network of N–H⋯O, C–H⋯O, and C–H⋯π interactions. Carbohydrate Research, 2004, 339, 1087-1092.	1,1	2
107	Halo- and Selenolactonization: The Two Major Strategies for Cyclofunctionalization. ChemInform, 2004, 35, no.	0.1	О

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109	Halo- and selenolactonisation: the two major strategies for cyclofunctionalisation. Tetrahedron, 2004, 60, 5273-5308.	1.0	232
110	Synthesis and catalytic activities of PdII–phosphine complexes modified poly(ether imine) dendrimers. Tetrahedron, 2004, 60, 10325-10334.	1.0	38
111	Solution and solid-state structure of N-acetamido-3,4,6-tri-O-acetyl-2-azido-2-deoxy-α-d-galactopyranosylamine. Carbohydrate Research, 2004, 339, 1447-1451.	1.1	9
112	Catalytic ceric ammonium nitrate mediated synthesis of 2-deoxy-1-thioglycosides. Carbohydrate Research, 2004, 339, 2197-2204.	1.1	39
113	Water-Soluble Dendrimers as Photochemical Reaction Media:Â Chemical Behavior of Singlet and Triplet Radical Pairs Inside Dendritic Reaction Cavities. Journal of the American Chemical Society, 2004, 126, 8999-9006.	6.6	70
114	The crystal structure of 1,2,3,4,6-penta-O-benzoyl-α-d-mannopyranose: observation of Cî—,Hâ√Ï€ interaction as a surrogate to Oî—,Hâ√O interaction of a free sugar. Carbohydrate Research, 2003, 338, 2005-2011.	1.1	14
115	Synthesis of Poly(propyl ether imine) Dendrimers and Evaluation of Their Cytotoxic Properties. Journal of Organic Chemistry, 2003, 68, 9694-9704.	1.7	59
116	Synthesis of Poly(alkyl aryl ether) Dendrimers. Journal of Organic Chemistry, 2002, 67, 6282-6285.	1.7	33
117	Dendritic encapsulation of amino acid–metal complexes. Synthesis and studies of dendron-functionalized l-tyrosine–metal (ZnII, CoII) complexes. Journal of the Chemical Society, Perkin Transactions 1, 2002, , 746-754.	1.3	9
118	Photoswitchable Multivalent Sugar Ligands:Â Synthesis, Isomerization, and Lectin Binding Studies of Azobenzeneâ'Glycopyranoside Derivatives. Journal of the American Chemical Society, 2002, 124, 2124-2125.	6.6	60
119	Sugar-Coated Discotic Liquid Crystals. Advanced Materials, 2001, 13, 175-180.	11.1	43
120	Sugar-Coated Discotic Liquid Crystals. , 2001, 13, 175.		1
121	Synthesis and Biological Evaluation of î±-d-Mannopyranoside-Containing Dendrimersâ€. Journal of Organic Chemistry, 1998, 63, 3429-3437.	1.7	112
122	Synthesis of Carbohydrate-Containing Dendrimers. 5. Preparation of Dendrimers Using Unprotected Carbohydrates. Tetrahedron Letters, 1997, 38, 6767-6770.	0.7	35
123	The cause of colour of the blue quartzes of the charnockites of south india and the Champion gneiss and other related rocks of Mysore. Proceedings of the Indian Academy of Sciences - Section A, 1939, 9, 265-285.	0.2	9
124	The mineralogy and chemical composition of garnets from the schist-complex of Nellore. Proceedings of the Indian Academy of Sciences - Section A, 1937, 5, 148-160.	0.2	3
125	Dendrimers and Their Use as Nanoscale Sensors. , 0, , 249-297.		3
126	Chemical and enzymatic approaches to the synthesis of cyclic oligosaccharides. Carbohydrate Chemistry, 0, , 165-209.	0.3	5

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12	27	Control of smectic layering in mono- <i>vs</i> disaccharide-coated polydiacetylenes. Liquid Crystals, 0, , 1-12.	0.9	0