## Narayanaswamy Jayaraman

List of Publications by Year in descending order

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

#	Article	IF	CITATIONS
1	Halo- and selenolactonisation: the two major strategies for cyclofunctionalisation. Tetrahedron, 2004, 60, 5273-5308.	1.0	232
2	Multivalent ligand presentation as a central concept to study intricate carbohydrate–protein interactions. Chemical Society Reviews, 2009, 38, 3463.	18.7	202
3	Multivalent glycoliposomes and micelles to study carbohydrate–protein and carbohydrate–carbohydrate interactions. Chemical Society Reviews, 2013, 42, 4640.	18.7	116
4	Synthesis and Biological Evaluation of α-d-Mannopyranoside-Containing Dendrimersâ€. Journal of Organic Chemistry, 1998, 63, 3429-3437.	1.7	112
5	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
6	Photoswitchable Multivalent Sugar Ligands:Â Synthesis, Isomerization, and Lectin Binding Studies of Azobenzeneâ^Clycopyranoside Derivatives. Journal of the American Chemical Society, 2002, 124, 2124-2125.	6.6	60
7	Synthesis of Poly(propyl ether imine) Dendrimers and Evaluation of Their Cytotoxic Properties. Journal of Organic Chemistry, 2003, 68, 9694-9704.	1.7	59
8	Inherent Photoluminescence Properties of Poly(propyl ether imine) Dendrimers. Organic Letters, 2008, 10, 9-12.	2.4	59
9	Synthesis of Septanosides through an Oxyglycal Route. Journal of Organic Chemistry, 2007, 72, 5500-5504.	1.7	58
10	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
11	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
12	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
13	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
14	Synthesis, Fluorescence and Photoisomerization Studies of Azobenzene-Functionalized Poly(alkyl aryl) Tj ETQqO	00 <sub>1.72</sub> BT/	Overlock 10
15	Synthetic (p)ppGpp Analogue Is an Inhibitor of Stringent Response in Mycobacteria. Antimicrobial Agents and Chemotherapy, 2017, 61, .	1.4	47
16	Sugar-Coated Discotic Liquid Crystals. Advanced Materials, 2001, 13, 175-180.	11.1	43
17	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

18Evaluation of α-d-mannopyranoside glycolipid micelles–lectin interactions by surface plasmon1.34118resonance method. Glycobiology, 2006, 16, 822-832.1.341

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19	Synthesis of large generation poly(propyl ether imine) (PETIM) dendrimers. Tetrahedron, 2006, 62, 9582-9588.	1.0	40
20	Catalytic ceric ammonium nitrate mediated synthesis of 2-deoxy-1-thioglycosides. Carbohydrate Research, 2004, 339, 2197-2204.	1.1	39
21	Synthesis and catalytic activities of PdII–phosphine complexes modified poly(ether imine) dendrimers. Tetrahedron, 2004, 60, 10325-10334.	1.0	38
22	Ring Expansion of Oxyglycals. Synthesis and Conformational Analysis of Septanoside-Containing Trisaccharides. Journal of Organic Chemistry, 2010, 75, 215-218.	1.7	38
23	Observation of a Chiral Smectic Phase in Azobenzene-Linked Bolaamphiphiles Containing Free Sugars. Advanced Functional Materials, 2005, 15, 1579-1584.	7.8	37
24	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
25	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
26	Synthesis of Carbohydrate-Containing Dendrimers. 5. Preparation of Dendrimers Using Unprotected Carbohydrates. Tetrahedron Letters, 1997, 38, 6767-6770.	0.7	35
27	Synthesis and biological evaluation of 3-amino-propan-1-ol based poly(ether imine) dendrimers. Tetrahedron, 2005, 61, 4281-4288.	1.0	34
28	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
29	Semiconducting Conjugated Microporous Polymer: An Electrode Material for Photoelectrochemical Water Splitting and Oxygen Reduction. ChemistrySelect, 2017, 2, 4522-4532.	0.7	34
30	Synthesis of Poly(alkyl aryl ether) Dendrimers. Journal of Organic Chemistry, 2002, 67, 6282-6285.	1.7	33
31	Hyperglycosylation of glycopeptidolipid of Mycobacterium smegmatis under nutrient starvation: structural studies. Microbiology (United Kingdom), 2005, 151, 2385-2392.	0.7	32
32	A galactose-functionalized dendritic siRNA-nanovector to potentiate hepatitis C inhibition in liver cells. Nanoscale, 2015, 7, 16921-16931.	2.8	29
33	Multivalent dendritic catalysts in organometallic catalysis. Inorganica Chimica Acta, 2014, 409, 34-52.	1.2	26
34	Dendritic Poly(ether imine) Based Gene Delivery Vector. Bioconjugate Chemistry, 2011, 22, 115-119.	1.8	25
35	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
36	Synthesis and Langmuir Studies of Bivalent and Monovalent α-d-Mannopyranosides with Lectin Con A. Langmuir, 2005, 21, 9591-9596.	1.6	21

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37	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
38	Interaction of single-walled carbon nanotubes with poly(propyl ether imine) dendrimers. Journal of Chemical Physics, 2011, 134, 104507.	1.2	20
39	Aggregation and photoresponsive behavior of azobenzene–oligomethylene–glucopyranoside bolaamphiphiles. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 405-413.	2.0	19
40	Exclusive ring opening of gem-dihalo-1,2-cyclopropanated oxyglycal to oxepines in AgOAc. Carbohydrate Research, 2014, 389, 66-71.	1.1	19
41	Increased Efficacies of an Individual Catalytic Site in Clustered Multivalent Dendritic Catalysts. Advanced Synthesis and Catalysis, 2009, 351, 2379-2390.	2.1	18
42	Thiolâ^'Disulfide Interchange Mediated Reversible Dendritic Megamer Formation and Dissociation. Macromolecules, 2009, 42, 7353-7359.	2.2	18
43	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
44	Glycoconjugations of Biomolecules by Chemical Methods. Frontiers in Chemistry, 2020, 8, 570185.	1.8	18
45	Manifestation of a Chiral Smectic C Phase in Diphenylbutadieneâ€Cored Bolaamphiphilic Sugars. Advanced Functional Materials, 2008, 18, 1632-1640.	7.8	17
46	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
47	Synthetic arabinomannan glycolipids impede mycobacterial growth, sliding motility and biofilm structure. Clycoconjugate Journal, 2016, 33, 763-777.	1.4	17
48	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
49	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
50	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
51	Backbone-modified amphiphilic cyclic di- and tetrasaccharides. Chemical Communications, 2014, 50, 8554-8557.	2.2	15
52	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
53	Synthesis and biological evaluation of mannose-6-phosphate-coated multivalent dendritic cluster glycosides. Organic and Biomolecular Chemistry, 2005, 3, 4252.	1.5	14
54	Synthesis of aryl-2-deoxy-d-lyxo/arabino-hexopyranosides from 2-deoxy-1-thioglycosides. Carbohydrate Research, 2007, 342, 1305-1314.	1.1	14

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55	Studies of the mesomorphic behavior of bivalent carbohydrate amphiphiles. Journal of Materials Chemistry, 2007, 17, 2228.	6.7	14
56	Synthesis and mycobacterial growth inhibition activities of bivalent and monovalent arabinofuranoside containing alkyl glycosides. Organic and Biomolecular Chemistry, 2008, 6, 2388.	1.5	14
57	Detection of sugar-lectin interactions by multivalent dendritic sugar functionalized single-walled carbon nanotubes. Applied Physics Letters, 2012, 101, 053701.	1.5	14
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	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
60	Synthesis of β-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
61	Synthesis and reactivity profiles of phosphinated poly(alkyl aryl ether) dendrimers. Tetrahedron, 2005, 61, 11184-11191.	1.0	12
62	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
63	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
64	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
65	Self assembly of bivalent glycolipids on single walled carbon nanotubes and their specific molecular recognition properties. RSC Advances, 2012, 2, 1329.	1.7	11
66	Analysis of the conformations of septanoside sugars. Pure and Applied Chemistry, 2014, 86, 1401-1419.	0.9	11
67	Synthesis of 2-deoxy cyclic and linear oligosaccharides by oligomerization of monomers. Carbohydrate Research, 2009, 344, 177-186.	1.1	10
68	Crystal structures and thermal analyses of alkyl 2-deoxy-α-d-arabino-hexopyranosides. Carbohydrate Research, 2009, 344, 1993-1998.	1.1	10
69	Synthetic Arabinomannan Heptasaccharide Glycolipids Inhibit Biofilm Growth and Augment Isoniazid Effects in <i>Mycobacterium smegmatis</i> . ChemBioChem, 2017, 18, 1959-1970.	1.3	10
70	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
71	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
72	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

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73	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
74	Role of hydroxyl group on the mesomorphism of alkyl glycosides: synthesis and thermal behavior of alkyl 6-deoxy-l²-d-glucopyranosides. Chemistry and Physics of Lipids, 2010, 163, 580-585.	1.5	9
75	Radical halogenation-mediated latent–active glycosylations of allyl glycosides. Chemical Communications, 2018, 54, 588-590.	2.2	9
76	Dense network of OH⋯O and CH⋯O 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
77	Synthesis and Structure of Cyclic Trisaccharide with Expanded Glycosidic Linkages. Journal of Organic Chemistry, 2016, 81, 4616-4622.	1.7	8
78	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
79	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
80	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
81	Facial selectivities in the nucleophilic additions of 2,3-unsaturated 3-arylsulfinyl pyranosides. Carbohydrate Research, 2013, 380, 51-58.	1.1	7
82	Sugar Vinyl Sulfoxide Glycoconjugation of Peptides and Lysozyme: Abrogation of Proteolysis at the Lysine Sites. Biochemistry, 2019, 58, 3561-3565.	1.2	7
83	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
84	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
85	Synthesis of 2-deoxy-d-arabino/lyxo-hexopyranosyl disaccharides. Carbohydrate Research, 2008, 343, 453-461.	1.1	6
86	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
87	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
88	Aglycon reactivity as a guiding principle in latent-active approach to chemical glycosylations. Carbohydrate Research, 2021, 508, 108404.	1.1	6
89	Efficient halogen–lithium exchange reactions to functionalize poly(alkyl aryl ether) dendrimers. Tetrahedron, 2006, 62, 6228-6235.	1.0	5
90	A kinetic analysis of the tumor-associated galactopyranosyl-(1→3)-2-acetamido-2-deoxy-α-d-galactopyranoside antigen—lectin interaction. Journal of Chemical Sciences, 2008, 120, 195-203.	0.7	5

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91	Increased glycosidic bond stabilities in 4-C-hydroxymethyl linked disaccharides. Carbohydrate Research, 2011, 346, 2394-2400.	1.1	5
92	Glycosidic Bond Expanded Cyclic Oligosaccharides: Synthesis and Host–Guest Binding Property of a Cyclic Pentasaccharide. ACS Omega, 2018, 3, 7466-7473.	1.6	5
93	Surface Ligand Density Switches Glycovesicles between Monomeric and Multimeric Lectin Recognition. ChemBioChem, 2021, 22, 485-490.	1.3	5
94	Chemical and enzymatic approaches to the synthesis of cyclic oligosaccharides. Carbohydrate Chemistry, 0, , 165-209.	0.3	5
95	Anomeric alkylations and acylations of unprotected mono- and disaccharides mediated by pyridoneimine in aqueous solutions. Chemical Communications, 2022, 58, 2224-2227.	2.2	5
96	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
97	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
98	Solid state structure of p-bromo phenyl 4,5,7-tri-O-benzyl-β-d-glycero-d-talo-septanoside and an analysis of non-covalent interactions. Carbohydrate Research, 2015, 410, 9-14.	1.1	4
99	Synthetic arabinan, arabinomannan glycolipids and their effects on mycobacterial growth, sliding motility and biofilm formation. Carbohydrate Chemistry, 2013, , 58-77.	0.3	4
100	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
101	Dendrimers and Their Use as Nanoscale Sensors. , 0, , 249-297.		3
102	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
103	Mannopyranoside Glycolipids Inhibit Mycobacterial and Biofilm Growth and Potentiate Isoniazid Inhibition Activities in M. smegmatis. ChemBioChem, 2019, 20, 1966-1976.	1.3	3
104	Potent HCV NS3 Protease Inhibition by a Water-Soluble Phyllanthin Congener. ACS Omega, 2020, 5, 11553-11562.	1.6	3
105	Advancements in synthetic and structural studies of septanoside sugars. , 2020, , 217-251.		3
106	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
107	Surface Density of Ligands Controls Inâ€Plane and Aggregative Modes of Multivalent Glycovesicleâ€Lectin Recognitions. ChemBioChem, 2021, 22, 3075-3081.	1.3	3
108	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⋯i€ interactions. Carbohydrate Research, 2004, 339, 1087-1092.	1.1	2

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109	Aggregation and mesomorphic properties of â€~double-headed' carbohydrate amphiphiles. Phase Transitions, 2005, 78, 529-535.	0.6	2
110	27th International Carbohydrate Symposium (ICS-27). Pure and Applied Chemistry, 2014, 86, 1321-1321.	0.9	2
111	Covalent assembly-disassembly of poly(ether imine) dendritic macromolecular monomers and megamers. Polymer, 2014, 55, 5102-5110.	1.8	2
112	In-plane modulated smectic à vs smectic â€~A' lamellar structures in poly(ethyl or propyl ether imine) dendrimers. Polymer, 2016, 86, 98-104.	1.8	2
113	Mesomorphic Sugar oated Polydiacetylene Polymers. Macromolecular Chemistry and Physics, 2020, 221, 1900451.	1.1	2
114	Carbon tetrachloride-free allylic halogenation-mediated glycosylations of allyl glycosides. Organic and Biomolecular Chemistry, 2021, 19, 9318-9325.	1.5	2
115	Molecule matters. Resonance, 2007, 12, 60-66.	0.2	1
116	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
117	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
118	Strain rate and temperature dependence of collapse pressure in Langmuir monolayer of cholesteryl dimers. Thin Solid Films, 2021, 735, 138900.	0.8	1
119	Sugar-Coated Discotic Liquid Crystals. , 2001, 13, 175.		1
120	Pyridoneimine-catalyzed anomeric aqueous oxa-Michael additions of native mono- and disaccharides. Carbohydrate Research, 2022, 520, 108610.	1.1	1
121	Chiral self-assembly of bolaamphiphilic sugar-terphenyl-sugar constructs. Materials Today Chemistry, 2022, 26, 101026.	1.7	1
122	Halo- and Selenolactonization: The Two Major Strategies for Cyclofunctionalization. ChemInform, 2004, 35, no.	0.1	0
123	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
124	Molecule matters. Resonance, 2011, 16, 1246-1253.	0.2	0
125	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
126	2016 Nobel Prize in Chemistry. Resonance, 2017, 22, 835-845.	0.2	0

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