

Luigi Lay

List of Publications by Year in descending order

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92
papers

2,702
citations

126907

33
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214800

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docs citations

109
times ranked

2413
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbohydrates and Immunology: Synthetic Oligosaccharide Antigens for Vaccine Formulation. <i>European Journal of Organic Chemistry</i> , 2011, 2011, 5723-5777.	2.4	133
2	New and Easy Access to C-Glycosides of Glucosamine and Mannosamine. <i>Journal of Organic Chemistry</i> , 1997, 62, 6678-6681.	3.2	85
3	Synthesis of carboranyl derivatives of alkynyl glycosides as potential BNCT agents. <i>Tetrahedron</i> , 1999, 55, 14123-14136.	1.9	78
4	Glucose-derived ionic liquids: exploring low-cost sources for novel chiral solvents. <i>Green Chemistry</i> , 2007, 9, 337.	9.0	78
5	Chemical Contributions to Understanding Heparin Activity: Synthesis of Related Sulfated Oligosaccharides. <i>European Journal of Organic Chemistry</i> , 2003, 2003, 2999-3024.	2.4	77
6	Phosphorylation of the Synthetic Hexasaccharide Repeating Unit Is Essential for the Induction of Antibodies to <i>Clostridium difficile</i> PSII Cell Wall Polysaccharide. <i>ACS Chemical Biology</i> , 2012, 7, 1420-1428.	3.4	73
7	Recent Advances in the Synthesis of Glycoconjugates for Vaccine Development. <i>Molecules</i> , 2018, 23, 1712.	3.8	71
8	Glycosylation with Trichloroacetimidates in Ionic Liquids: Influence of the Reaction Medium on the Stereochemical Outcome. <i>Journal of Organic Chemistry</i> , 2005, 70, 7765-7768.	3.2	68
9	Expedient Synthesis of Water-Soluble, Monolayer-Protected Gold Nanoparticles of Controlled Size and Monolayer Composition. <i>Langmuir</i> , 2008, 24, 4120-4124.	3.5	68
10	Preparation and immunogenicity of gold glyco-nanoparticles as antipneumococcal vaccine model. <i>Nanomedicine</i> , 2017, 12, 13-23.	3.3	66
11	Synthesis of azasugars by Grignard reaction on glycosylamines. <i>Tetrahedron</i> , 1995, 51, 4679-4690.	1.9	62
12	Capsular polysaccharide of <i>Streptococcus pneumoniae</i> type 19F: synthesis of the repeating unit. <i>Carbohydrate Research</i> , 1998, 311, 171-181.	2.3	57
13	Minimal Heparin/Heparan Sulfate Sequences for Binding to Fibroblast Growth Factor-1. <i>Biochemical and Biophysical Research Communications</i> , 2002, 292, 222-230.	2.1	52
14	Multivalent, Saccharide-Functionalized Gold Nanoparticles as Fully Synthetic Analogs of Type A <i>Neisseria meningitidis</i> Antigens. <i>Advanced Materials</i> , 2008, 20, 4348-4352.	21.0	52
15	Amphiphilic N-Glycosyl-thiocarbamoyl Cyclodextrins: Synthesis, Self-Assembly, and Fluorimetry of Recognition by <i>Lens culinaris</i> Lectin. <i>Biomacromolecules</i> , 2007, 8, 1851-1857.	5.4	50
16	Stereoselective Synthesis of the Isosteric Phosphono Analogues of N-Acetyl-1-d-glucosamine 1-Phosphate and N-Acetyl-1-d-mannosamine 1-Phosphate. <i>Journal of Organic Chemistry</i> , 1996, 61, 3428-3432.	3.2	49
17	Synthesis of C-disaccharides through dimerization of exo-glycals. <i>Journal of Organic Chemistry</i> , 1992, 57, 1304-1306.	3.2	48
18	A new procedure for the synthesis of azasugars. <i>Tetrahedron Letters</i> , 1993, 34, 4555-4558.	1.4	48

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19	Factors affecting T cell responses induced by fully synthetic glyco-gold-nanoparticles. <i>Nanoscale</i> , 2013, 5, 390-400.	5.6	48
20	Synthesis and Biological Evaluation of Phosphono Analogues of Capsular Polysaccharide Fragments from <i>Neisseria meningitidis</i> . <i>Chemistry - A European Journal</i> , 2007, 13, 6623-6635.	3.3	46
21	Gold nanoparticle-based platforms for vaccine development. <i>Drug Discovery Today: Technologies</i> , 2020, 38, 57-67.	4.0	46
22	Efficient Synthesis of Unsymmetrical Ureido-Linked Disaccharides. <i>European Journal of Organic Chemistry</i> , 2004, 2004, 395-405.	2.4	41
23	Stereoselective synthesis of the C-analogue of β -D-glucopyranosyl serine. <i>Chemical Communications</i> , 1997, , 1469-1470.	4.1	40
24	Probing specific protein recognition by size-controlled glycosylated cyclodextrin nanoassemblies. <i>New Journal of Chemistry</i> , 2006, 30, 1662.	2.8	40
25	NMR evidence for the participation of triflated ionic liquids in glycosylation reaction mechanisms. <i>Carbohydrate Research</i> , 2006, 341, 903-908.	2.3	40
26	Synthesis of N -acetylglucosamine containing Lewis A and Lewis X building blocks based on N -tetrachlorophthaloyl protection synthesis of Lewis X pentasaccharide. <i>Carbohydrate Research</i> , 1998, 310, 157-171.	2.3	39
27	Recent advances on smart glycoconjugate vaccines in infections and cancer. <i>FEBS Journal</i> , 2022, 289, 4251-4303.	4.7	39
28	A Rational Approach to Heparin-Related Fragments - Synthesis of Differently Sulfated Tetrasaccharides as Potential Ligands for Fibroblast Growth Factors. <i>European Journal of Organic Chemistry</i> , 2001, 2001, 2727-2734.	2.4	37
29	First Synthesis of <i>C. difficile</i> PS-II Cell Wall Polysaccharide Repeating Unit. <i>Organic Letters</i> , 2011, 13, 378-381.	4.6	37
30	Synthesis and preliminary biological evaluation of carba analogues from <i>Neisseria meningitidis</i> A capsular polysaccharide. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 6673.	2.8	35
31	Immunoactivity of Protein Conjugates of Carba Analogues from <i>Neisseria meningitidis</i> A Capsular Polysaccharide. <i>ACS Chemical Biology</i> , 2013, 8, 2561-2567.	3.4	35
32	Synthesis of <i>Staphylococcus aureus</i> type 5 capsular polysaccharide repeating unit using novel l-FucNAc and d-FucNAc synthons and immunochemical evaluation. <i>Bioorganic and Medicinal Chemistry</i> , 2012, 20, 6403-6415.	3.0	34
33	Synthesis of disaccharidic sub-units of a new series of heparin related oligosaccharides. <i>Tetrahedron</i> , 1999, 55, 9867-9880.	1.9	33
34	Trichloroacetimidates as Glycosyl Donors in Recyclable Ionic Liquids. <i>Synlett</i> , 2003, 2003, 2297-2300.	1.8	32
35	Novel carbohydrate-based bifunctional organocatalysts for nucleophilic addition to nitroolefins and imines. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 3295.	2.8	32
36	Synthesis and immunological evaluation of protein conjugates of <i>Neisseria meningitidis</i> X capsular polysaccharide fragments. <i>Beilstein Journal of Organic Chemistry</i> , 2014, 10, 2367-2376.	2.2	31

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37	Combined Chemical Synthesis and Tailored Enzymatic Elongation Provide Fully Synthetic and Conjugation-Ready <i>Neisseria meningitidis</i> Serogroup X Vaccine Antigens. <i>ACS Chemical Biology</i> , 2018, 13, 984-994.	3.4	31
38	Glycoporphyrin Catalysts for Efficient C-H Bond Aminations by Organic Azides. <i>Organometallics</i> , 2015, 34, 3774-3781.	2.3	30
39	Synthesis of Lewis a and Lewis X Pentasaccharides Based on N-Trichloroethoxycarbonyl Protection. <i>Journal of Carbohydrate Chemistry</i> , 1998, 17, 739-758.	1.1	28
40	Stereoselective synthesis of α -C-glycosides of N-acetylgalactosamine. <i>Tetrahedron: Asymmetry</i> , 2000, 11, 295-303.	1.8	27
41	Regioselective acylation of disaccharides by enzymatic transesterification. <i>Carbohydrate Research</i> , 1996, 291, 197-204.	2.3	26
42	Fluidic Manufacture of Star-Shaped Gold Nanoparticles. <i>Chemistry - A European Journal</i> , 2017, 23, 9732-9735.	3.3	26
43	Exploring Glycosylation Reactions under Continuous-Flow Conditions. <i>Synlett</i> , 2014, 25, 2873-2878.	1.8	25
44	Synthesis of building blocks of human milk oligosaccharides. Fucosylated derivatives of the lacto- and neolacto-series. <i>Carbohydrate Research</i> , 2002, 337, 1333-1342.	2.3	24
45	Synthesis, molecular dynamics simulations, and biology of a carba-analogue of the trisaccharide repeating unit of <i>Streptococcus pneumoniae</i> 19F capsular polysaccharide. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 4428.	2.8	24
46	Gold nanoparticles morphology does not affect the multivalent presentation and antibody recognition of Group A <i>Streptococcus</i> synthetic oligorhamnans. <i>Bioorganic Chemistry</i> , 2020, 99, 103815.	4.1	24
47	Emerging glyco-based strategies to steer immune responses. <i>FEBS Journal</i> , 2021, 288, 4746-4772.	4.7	22
48	A Synthetic Disaccharide Analogue from <i>Neisseria meningitidis</i> A Capsular Polysaccharide Stimulates Immune Cell Responses and Induces Immunoglobulin G (IgG) Production in Mice When Protein-Conjugated. <i>ACS Infectious Diseases</i> , 2015, 1, 487-496.	3.8	21
49	A simple access to lactose-derived building blocks required in glycoconjugate synthesis. <i>Carbohydrate Research</i> , 1997, 303, 39-49.	2.3	19
50	Modeling of synthetic phosphono and carba analogues of N-acetyl- α -d-mannosamine 1-phosphate, the repeating unit of the capsular polysaccharide from <i>Neisseria meningitidis</i> serovar A. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 3734.	2.8	19
51	The Conformation of the Mannopyranosyl Phosphate Repeating Unit of the Capsular Polysaccharide of <i>Neisseria meningitidis</i> Serogroup A and Its Carba-Mimetic. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 4548-4555.	2.4	19
52	Boranophosphate Diesters as Stable Synthetic Analogues of 1-O-Glycosylphosphates. <i>Tetrahedron</i> , 2000, 56, 4811-4815.	1.9	18
53	Simple Synthesis of Versatile Coumarin Scaffolds. <i>Synthetic Communications</i> , 2006, 36, 2203-2209.	2.1	18
54	Cyclodextrin nanoaggregates and their assembly with protein: a spectroscopic investigation. <i>Nanotechnology</i> , 2006, 17, 3239-3244.	2.6	18

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55	A stabilized glycomimetic conjugate vaccine inducing protective antibodies against <i>Neisseria meningitidis</i> serogroup A. <i>Nature Communications</i> , 2020, 11, 4434.	12.8	18
56	HRMAS NMR analysis in neat ionic liquids: a powerful tool to investigate complex organic molecules and monitor chemical reactions. <i>Green Chemistry</i> , 2007, 9, 216.	9.0	17
57	Synthesis and biological evaluation of a trisaccharide repeating unit derivative of <i>Streptococcus pneumoniae</i> 19A capsular polysaccharide. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 5682-5690.	3.0	16
58	Human milk oligosaccharides: an enzymatic protection step simplifies the synthesis of 3- and 6-O-sialyllactose and their analogues. <i>Carbohydrate Research</i> , 2002, 337, 473-483.	2.3	15
59	Identification of O-sulphate substituents on D-glucuronic acid units in heparin-related glycosaminoglycans using novel synthetic disaccharide standards. <i>Glycobiology</i> , 1995, 5, 807-811.	2.5	14
60	A CONVENIENT MULTIGRAM PREPARATION OF FUNCTIONALIZED 2-AZIDO-2-DEOXY-D-MANNOSE AS A USEFUL ORTHOGONALLY PROTECTED BUILDING BLOCK FOR OLIGOSACCHARIDE SYNTHESIS. <i>Journal of Carbohydrate Chemistry</i> , 2001, 20, 813-819.	1.1	14
61	Glycosyl sulfates as glycosyl donors. <i>Tetrahedron Letters</i> , 1994, 35, 8669-8670.	1.4	12
62	Synthesis of antimetabolites of sucrose. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1994, , 333.	0.9	12
63	Regioselective lipase acylation as a useful tool for separation and selective protection of 1,2-d-Gal(1 \rightarrow 4)-d-GlcNAc and 1,2-d-Gal(1 \rightarrow 3)-d-GlcNAc disaccharides. <i>Tetrahedron: Asymmetry</i> , 2000, 11, 3647-3651.	1.8	12
64	Oligosaccharides Related to Tumor-Associate Antigens. Part 2. Conformational analysis of the trisaccharide ?-L-Fucp-(1 \rightarrow 2)-?-D-Galp-(1 \rightarrow 3)-?-D-GalpNAc, epitope structure recognized by the MBr1 antibody. <i>Helvetica Chimica Acta</i> , 1994, 77, 668-678.	1.6	11
65	Exploiting the cross-metathesis reaction in the synthesis of pseudo-oligosaccharides. <i>Organic and Biomolecular Chemistry</i> , 2009, 7, 2635.	2.8	11
66	Synthesis of di- and tri-saccharide fragments of <i>Salmonella typhi</i> Vi capsular polysaccharide and their zwitterionic analogues. <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 7439-7447.	3.0	11
67	Easy Chemo-Enzymatic Synthesis of Human Milk Trisaccharides from a Common Selectively Protected Lactose Building Block. <i>Journal of Carbohydrate Chemistry</i> , 2000, 19, 331-343.	1.1	10
68	IMPROVEMENT ON LIPASE CATALYSED REGIOSELECTIVE O-ACYLATION OF LACTOSE:A CONVENIENT RUOTE TO 2-O- FUCOSYLLACTOSE1. <i>Journal of Carbohydrate Chemistry</i> , 2001, 20, 761-765.	1.1	10
69	Synthesis of phosphorylated fragments of <i>Streptococcus pneumoniae</i> type 19F capsular polysaccharide. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2002, , 2174-2181.	1.3	10
70	Synthesis of a Structural Analogue of the Repeating Unit from <i>Streptococcus pneumoniae</i> 19F Capsular Polysaccharide Based on the Cross-Metathesis/Selenocyclization Reaction Sequence. <i>Journal of Organic Chemistry</i> , 2013, 78, 5172-5183.	3.2	10
71	A Strategy for Multivalent Presentation of Carba Analogues from <i>N. meningitidis</i> A Capsular Polysaccharide. <i>European Journal of Organic Chemistry</i> , 2014, 2014, 5915-5924.	2.4	10
72	Impact of ConcanavalinA affinity in the intracellular fate of Protein Corona on Glucosamine Au nanoparticles. <i>Scientific Reports</i> , 2018, 8, 9046.	3.3	10

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73	Iron and Ruthenium Glycoporphyrins: Active Catalysts for the Synthesis of Cyclopropanes and Aziridines. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 4412-4420.	2.0	10
74	Combining cross-coupling reaction and Knoevenagel condensation in the synthesis of glyco-BODIPY probes for DC-SIGN super-resolution bioimaging. <i>Bioorganic Chemistry</i> , 2021, 109, 104730.	4.1	10
75	Immunobiology of Carbohydrates: Implications for Novel Vaccine and Adjuvant Design Against Infectious Diseases. <i>Frontiers in Cellular and Infection Microbiology</i> , 2021, 11, 808005.	3.9	10
76	First synthesis of the phosphono analogue of N-acetyl- β -D-mannosamine 1-phosphate. <i>Journal of the Chemical Society Chemical Communications</i> , 1995, , 1993-1994.	2.0	9
77	Synthetic Approach to Kdo Glycosides Via Exo-Glycal Epoxides and Rationalization of the Stereochemical Outcome. <i>Journal of Carbohydrate Chemistry</i> , 1998, 17, 1269-1281.	1.1	9
78	Lipase-Catalysed Regioselective Acylations in Combination with Regioselective Glycosylations as a Strategy for the Synthesis of Oligosaccharides: Synthesis of a Series of Fucosyllactose Building Blocks. <i>European Journal of Organic Chemistry</i> , 2003, 2003, 1672-1680.	2.4	8
79	Glycan Array Evaluation of Synthetic Epitopes between the Capsular Polysaccharides from <i>Streptococcus pneumoniae</i> 19F and 19A. <i>ACS Chemical Biology</i> , 2021, 16, 1671-1679.	3.4	8
80	Synthesis of 3- and 4-deoxy derivatives of L-rhamnose from 1,2-O-(1-methoxyethylidene)- β -L-rhamnopyranose. <i>Carbohydrate Research</i> , 1994, 257, 317-322.	2.3	7
81	Conversion of Lactose into Mimics of N-Acetylglucosamine. <i>European Journal of Organic Chemistry</i> , 1999, 1999, 3437-3440.	2.4	6
82	Solution Synthesis of Two Orthogonally Protected Lactosides as Tetravalent Disaccharide-Based Scaffolds. <i>European Journal of Organic Chemistry</i> , 2004, 2004, 2853-2862.	2.4	6
83	Improvement of the Synthesis of Immunological Carbohydrate Vaccines Containing the Tumour Associate Antigen CaMBr1. <i>European Journal of Organic Chemistry</i> , 2001, 2001, 4331.	2.4	4
84	Synthesis of <i>Neisseria meningitidis</i> X capsular polysaccharide fragments. <i>Arkivoc</i> , 2013, 2013, 166-184.	0.5	4
85	Synthesis of the disaccharides methyl 4-O-(2/3-O-sulfo- β -D-glucopyranosyluronic) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 267 Glycoconjugate Journal, 1996, 13, 995-1003.	2.7	3
86	(β -L-Rhamnopyranosyl)methylphosphonic Acids: Experimental Evidence of the Analogy with β -L-Rhamnopyranosyl Phosphate. <i>European Journal of Organic Chemistry</i> , 2005, 2005, 4459-4463.	2.4	3
87	Conjugation Techniques and Linker Strategies for Carbohydrate-Based Vaccines. , 2021, , 676-705.		2
88	Efficient Synthesis of O-, S-, N- and C-Glycosides of 2-Amino-2-Deoxy-D-Glucopyranose from Glycosyl Iodides. <i>Synlett</i> , 2004, 2004, 0341-0343.	1.8	1
89	Synthesis of the Phosphono Analogue of the Dimeric Subunit of <i>Neisseria meningitidis</i> Type A Capsular Polysaccharide. <i>Synlett</i> , 2005, 2005, 1147-1151.	1.8	1
90	Chemical Contributions to Understanding Heparin Activity: Synthesis of Related Sulfated Oligosaccharides. <i>ChemInform</i> , 2003, 34, no.	0.0	0

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91	Major Advances in the Development of Synthetic -Based. , 2014, , 1-45.		0
92	Major Advances in the Development of Synthetic Oligosaccharide-Based Vaccines. , 2015, , 2065-2116.		0