Juan Luis Asensio

List of Publications by Year
in descending order

105 papers	4,306 citations	76326 40 h-index	123424 61 g-index
113 all docs	113 docs citations	113 times ranked	3600 citing authors

#	Article	IF	Citations
1	A Fungal Versatile GH10 Endoxylanase and Its Glycosynthase Variant: Synthesis of Xylooligosaccharides and Glycosides of Bioactive Phenolic Compounds. International Journal of Molecular Sciences, 2022, 23, 1383.	4.1	3
2	Singleâ€Step Glycosylations with ¹³Câ€Labelled Sulfoxide Donors: Aâ€‰Lowâ€Temperature NMR Cartography of the Distinguishing Mechanistic Intermediates. Chemistry - A European Journal, 2021, 27, 2030-2042.	3.3	11
3	De Novo Design of Selective Quadruplexâ€“Duplex Junction Ligands and Structural Characterisation of Their Binding Mode: Targeting the G4 Hotâ€Spot. Chemistry - A European Journal, 2021, 27, 6204-6212.	3.3	16
4	De Novo Design of Selective Quadruplexâ€“Duplex Junction Ligands and Structural Characterisation of Their Binding Mode: Targeting the G4 Hotâ€Spot. Chemistry - A European Journal, 2021, 27, 6106-6106.	3.3	0
5	Glycosyl Oxocarbenium Ions: Structure, Conformation, Reactivity, and Interactions. Accounts of Chemical Research, 2021, 54, 2552-2564.	15.6	46
6	Aromatic interactions in Glycochemistry: from molecular recognition to catalysis. Current Medicinal Chemistry, 2021, 28, .	2.4	1
7	Thioglycoligase derived from fungal GH3 Î²-xylosidase is a multi-glycoligase with broad acceptor tolerance. Nature Communications, 2020, 11, 4864.	12.8	21
8	Structural characterization of an unprecedented lectin-like antitumoral anti-MUC1 antibody. Chemical Communications, 2020, 56, 15137-15140.	4.1	10
9	A glucotolerant Î²-glucosidase from the fungus Talaromyces amestolkiae and its conversion into a glycosynthase for glycosylation of phenolic compounds. Microbial Cell Factories, 2020, 19, 127.	4.0	25
10	Dissecting the Essential Role of Anomeric Î²-Triflates in Glycosylation Reactions. Journal of the American Chemical Society, 2020, 142, 12501-12514.	13.7	52
11	Impact of Aromatic Stacking on Glycoside Reactivity: Balancing CH/Ï€ and Cation/Ï€ Interactions for the Stabilization of Glycosyl-Oxocarbenium Ions. Journal of the American Chemical Society, 2019, 141, 13372-13384.	13.7	26
12	Transglycosylation products generated by Talaromyces amestolkiae GH3 Î²-glucosidases: effect of hydroxytyrosol, vanillin and its glucosides on breast cancer cells. Microbial Cell Factories, 2019, 18, 97.	4.0	28
13	Structure-Based Design of Potent Tumor-Associated Antigens: Modulation of Peptide Presentation by Single-Atom O/S or O/Se Substitutions at the Glycosidic Linkage. Journal of the American Chemical Society, 2019, 141, 4063-4072.	13.7	51
14	Water Sculpts the Distinctive Shapes and Dynamics of the Tumor-Associated Carbohydrate Tn Antigens: Implications for Their Molecular Recognition. Journal of the American Chemical Society, 2018, 140, 9952-9960.	13.7	33
15	The Use of Fluoroproline in MUC1 Antigen Enables Efficient Detection of Antibodies in Patients with Prostate Cancer. Journal of the American Chemical Society, 2017, 139, 18255-18261.	13.7	33
16	Finding the Right Candidate for the Right Position: A Fast NMR-Assisted Combinatorial Method for Optimizing Nucleic Acids Binders. Journal of the American Chemical Society, 2016, 138, 6463-6474.	13.7	5
17	Mucin architecture behind the immune response: design, evaluation and conformational analysis of an antitumor vaccine derived from an unnatural MUC1 fragment. Chemical Science, 2016, 7, 2294-2301.	7.4	35
18	Selective modification of the 3â€²â€²-amino group of kanamycin prevents significant loss of activity in resistant bacterial strains. Organic and Biomolecular Chemistry, 2016, 14, 516-525.	2.8	9

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19	Deciphering the Nonâ€Equivalence of Serine and Threonine Oâ€Glycosylation Points: Implications for Molecular Recognition of the Tn Antigen by an antiâ€MUC1 Antibody. Angewandte Chemie - International Edition, 2015, 54, 9830-9834.	13.8	65
20	Modulating Weak Interactions for Molecular Recognition: A Dynamic Combinatorial Analysis for Assessing the Contribution of Electrostatics to the Stability of CHâ€“Ï€ Bonds in Water. Angewandte Chemie - International Edition, 2015, 54, 4344-4348.	13.8	28
21	Detection of Tumor-Associated Glycopeptides by Lectins: The Peptide Context Modulates Carbohydrate Recognition. ACS Chemical Biology, 2015, 10, 747-756.	3.4	39
22	A thorough experimental study of CH/Ï€ interactions in water: quantitative structureâ€“stability relationships for carbohydrate/aromatic complexes. Chemical Science, 2015, 6, 6076-6085.	7.4	48
23	Serine versus Threonine Glycosylation with Î±â€Oâ€GalNAc: Unexpected Selectivity in Their Molecular Recognition with Lectins. Chemistry - A European Journal, 2014, 20, 12616-12627.	3.3	36
24	Carbohydrateâ€“Aromatic Interactions. Accounts of Chemical Research, 2013, 46, 946-954.	15.6	394
25	A Dynamic Combinatorial Approach for the Analysis of Weak Carbohydrate/Aromatic Complexes: Dissecting Facial Selectivity in CH/Ï€ Stacking Interactions. Journal of the American Chemical Society, 2013, 135, 3347-3350.	13.7	46
26	Chemical Interrogation of Drug/RNA Complexes: From Chemical Reactivity to Drug Design. Angewandte Chemie - International Edition, 2013, 52, 3148-3151.	13.8	8
27	Multiple Keys for a Single Lock: The Unusual Structural Plasticity of the Nucleotidyltransferase (4â€²)/Kanamycin Complex. Chemistry - A European Journal, 2012, 18, 2875-2889.	3.3	13
28	Rational design of a Tn antigen mimic. Chemical Communications, 2011, 47, 5319.	4.1	24
29	Engineering Oâ€Glycosylation Points in Nonâ€extended Peptides: Implications for the Molecular Recognition of Short Tumorâ€Associated Glycopeptides. Chemistry - A European Journal, 2011, 17, 3105-3110.	3.3	19
30	Novel dimeric structure of phage Ï•29-encoded protein p56: insights into uracil-DNA glycosylase inhibition. Nucleic Acids Research, 2011, 39, 9779-9788.	14.5	15
31	An Efficient and General Route to the Synthesis of Novel Aminoglycosides for RNA Binding. Synlett, 2011, 2011, 219-222.	1.8	3
32	Structureâ€Based Design of Highly Crowded Ribostamycin/Kanamycin Hybrids as a New Family of Antibiotics. Chemistry - A European Journal, 2010, 16, 2986-2991.	3.3	12
33	The Unusual Nucleotide Recognition Properties of the Resistance Enzyme ANT(4â€²): Inorganic Tri/Polyphosphate as a Substrate for Aminoglycoside Inactivation. Chemistry - A European Journal, 2010, 16, 8635-8640.	3.3	9
34	Role of Aromatic Rings in the Molecular Recognition of Aminoglycoside Antibiotics: Implications for Drug Design. Journal of the American Chemical Society, 2010, 132, 12074-12090.	13.7	55
35	Role of Conserved Salt Bridges in Homeodomain Stability and DNA Binding. Journal of Biological Chemistry, 2009, 284, 23765-23779.	3.4	12
36	Sugarâ€“Oligoamides: Boundâ€State Conformation and DNA Minorâ€Grooveâ€Binding Description by TRâ€NOESY and Differentialâ€Frequency Saturationâ€Transferâ€Difference Experiments. Chemistry - A European Journal, 2008, 14, 2435-2442.	3.3	15

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37	NMR-Based Analysis of Aminoglycoside Recognition by the Resistance Enzyme ANT(4â€²): The Pattern of OH/NH3+Substitution Determines the Preferred Antibiotic Binding Mode and Is Critical for Drug Inactivation. Journal of the American Chemical Society, 2008, 130, 5086-5103.	13.7	18
38	Studies on the Conformational Features of Neomycin-B and its Molecular Recognition by RNA and Bacterial Defense Proteins. Topics in Current Chemistry, 2007, 273, 117-138.	4.0	3
39	The Pattern of Distribution of Amino Groups Modulates the Structure and Dynamics of Natural Aminoglycosides:â€‰ Implications for RNA Recognition. Journal of the American Chemical Society, 2007, 129, 2849-2865.	13.7	44
40	Rescue of the streptomycin antibiotic activity by using streptidine as a â€œdecoy acceptorâ€• for the aminoglycoside-inactivating enzyme adenyl transferase. Chemical Communications, 2007, , 2829-2831.	4.1	9
41	A simple NMR analysis of the protonation equilibrium that accompanies aminoglycoside recognition: Dramatic alterations in the neomycin-B protonation state upon binding to a 23-mer RNA aptamer. Chemical Communications, 2007, , 174-176.	4.1	23
42	Serine versus Threonine Glycosylation:â€‰ The Methyl Group Causes a Drastic Alteration on the Carbohydrate Orientation and on the Surrounding Water Shell. Journal of the American Chemical Society, 2007, 129, 9458-9467.	13.7	127
43	The solution conformation of C-glycosyl analogues of the sialyl-Tn antigen. Carbohydrate Research, 2007, 342, 1974-1982.	2.3	4
44	The conformation of the C-glycosyl analogue of N-acetyl-lactosamine in the free state and bound to a toxic plant agglutinin and human adhesion/growth-regulatory galectin-1. Carbohydrate Research, 2007, 342, 1918-1928.	2.3	23
45	New Insights into Î±-GalNAcâ€“Ser Motif:â€‰ Influence of Hydrogen Bonding versus Solvent Interactions on the Preferred Conformation. Journal of the American Chemical Society, 2006, 128, 14640-14648.	13.7	78
46	Exploring the Use of Conformationally Locked Aminoglycosides as a New Strategy to Overcome Bacterial Resistance. Journal of the American Chemical Society, 2006, 128, 100-116.	13.7	73
47	Conformational insights on the molecular recognition processes of carbohydrate molecules by proteins and enzymes: A 3D view by using NMR. Biocatalysis and Biotransformation, 2006, 24, 13-22.	2.0	9
48	Protein-Carbohydrate Interactions: A Combined Theoretical and NMR Experimental Approach on Carbohydrate-Aromatic Interactions and on Pyranose Ring Distortion. ACS Symposium Series, 2006, , 60-80.	0.5	7
49	Effect of Î²-O-Glucosylation onL-Ser andL-Thr Diamides: A Bias toward Î±-Helical Conformations. Chemistry - A European Journal, 2006, 12, 7864-7871.	3.3	36
50	Hevein Domains: An Attractive Model to Study Carbohydrateâ€“Protein Interactions at Atomic Resolution. Advances in Carbohydrate Chemistry and Biochemistry, 2006, 60, 303-354.	0.9	55
51	A dynamic perspective on the molecular recognition of chitooligosaccharide ligands by hevein domains. Carbohydrate Research, 2005, 340, 1039-1049.	2.3	11
52	Molecular Recognition of Aminoglycoside Antibiotics by Bacterial Defence Proteins: NMR Study of the Structural and Conformational Features of Streptomycin Inactivation byBacillus subtilis Aminoglycoside-6-adenyl Transferase. Chemistry - A European Journal, 2005, 11, 5102-5113.	3.3	19
53	On the Importance of Carbohydrate-Aromatic Interactions for the Molecular Recognition of Oligosaccharides by Proteins: NMR Studies of the Structure and Binding Affinity of AcAMP2-like Peptides with Non-Natural Naphthyl and Fluoroaromatic Residues. Chemistry - A European Journal, 2005, 11, 7060-7074.	3.3	110
54	The conformational behaviour of Î±,Î²-trehalose-like disaccharides and their C-glycosyl, imino-C-glycosyl and carbagalactose analogues depends on the chemical nature of the modification: an NMR investigation. Tetrahedron: Asymmetry, 2005, 16, 519-527.	1.8	19

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55	Structural Basis for Membrane Anchorage of Viral Ï•29 DNA during Replication*. Journal of Biological Chemistry, 2005, 280, 42486-42488.	3.4	9
56	Structure of the Functional Domain of Ï†29 Replication Organizer. Journal of Biological Chemistry, 2005, 280, 20730-20739.	3.4	8
57	A Simple Structural-Based Approach to Prevent Aminoglycoside Inactivation by Bacterial Defense Proteins. Conformational Restriction Provides Effective Protection against Neomycin-B Nucleotidylation by ANT4. Journal of the American Chemical Society, 2005, 127, 8278-8279.	13.7	50
58	Limited Flexibility of Lactose Detected from Residual Dipolar Couplings Using Molecular Dynamics Simulations and Steric Alignment Methods. Journal of the American Chemical Society, 2005, 127, 3589-3595.	13.7	53
59	Carbohydrate-Based DNA Ligands:Â Sugarâ^'Oligoamides as a Tool to Study Carbohydrateâ^'Nucleic Acid Interactions. Journal of the American Chemical Society, 2005, 127, 9518-9533.	13.7	31
60	NMR and Modeling Studies of Protein-Carbohydrate Interactions: Synthesis, Three-Dimensional Structure, and Recognition Properties of a Minimum Hevein Domain with Binding Affinity for Chitooligosaccharides. ChemBioChem, 2004, 5, 1245-1255.	2.6	75
61	Toward the understanding of the structure and dynamics of proteinâ€“carbohydrate interactions: molecular dynamics studies of the complexes between hevein and oligosaccharidic ligands. Carbohydrate Research, 2004, 339, 985-994.	2.3	25
62	G2 and DFT Rigorous Description of the Inversion Process of Oxane and Thiane used as Simple Ring Systems to Model Sugar Components. ChemPhysChem, 2003, 4, 754-757.	2.1	11
63	Conformational Selection of Glycomimetics at Enzyme Catalytic Sites:â€‰ Experimental Demonstration of the Binding of Distinct High-Energy Distorted Conformations of C-, S-, and O-Glycosides by E. Coli Î²-Galactosidases. Journal of the American Chemical Society, 2002, 124, 4804-4810.	13.7	85
64	Experimental evidence for the existence of non-exo-anomeric conformations in branched oligosaccharides: the neomycin-B case. Chemical Communications, 2002, , 2232-2233.	4.1	3
65	Experimental Evidence for the Existence of Non-exo-Anomeric Conformations in Branched Oligosaccharides: NMR Analysis of the Structure and Dynamics of Aminoglycosides of the Neomycin Family. Chemistry - A European Journal, 2002, 8, 5228-5240.	3.3	22
66	The Impact of R53C Mutation on the Three-Dimensional Structure, Stability, and DNA-Binding Properties of the Human Hesx-1 Homeodomain. ChemBioChem, 2002, 3, 726.	2.6	12
67	NMR investigations of proteinâ€“carbohydrate interactions: insights into the topology of the bound conformation of a lactose isomer and Î²-galactosyl xyloses to mistletoe lectin and galectin-1. Biochimica Et Biophysica Acta - General Subjects, 2001, 1568, 225-236.	2.4	31
68	Conformational selection of non-hydrolyzable glycomimetics: the conformation of N,Nâ€²-diacetylthiochitobiose bound to wheat germ agglutinin. Journal of the Chemical Society, Perkin Transactions 1, 2001, , 867-872.	1.3	2
69	Conformational Differences Between O- and C-Glycosides: TheÎ±-O-Man-(1â†'1)-Î²-Gal/Î±-C-Man-(1â†'1)-Î²-Gal Case- A Decisive Demonstration of the Importance of theexo-Anomeric Effect on the Conformation of Glycosides. Chemistry - A European Journal, 2000, 6, 1035-1041.	3.3	83
70	NMR investigations of protein-carbohydrate interactions: Studies on the relevance of Trp/Tyr variations in lectin binding sites as deduced from titration microcalorimetry and NMR studies on hevein domains. Determination of the NMR structure of the complex between pseudohevein and N,N?,N?-triacetylchitotriose. , 2000, 40, 218-236.		59
71	The Conformational Behaviour of Non-Hydrolizable Lactose Analogues: The Thioglycoside, Carbaglycoside, and Carba-Iminoglycoside Cases. European Journal of Organic Chemistry, 2000, 2000, 1945-1952.	2.4	52
72	A New Combined Computational and NMR-Spectroscopical Strategy for the Identification of Additional Conformational Constraints of the Bound Ligand in an Aprotic Solvent. ChemBioChem, 2000, 1, 181-195.	2.6	49

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73	NMR investigations of protein-carbohydrate interactions. FEBS Journal, 2000, 267, 3965-3978.	0.2	46
74	Structural basis for chitin recognition by defense proteins: GlcNAc residues are bound in a multivalent fashion by extended binding sites in hevein domains. Chemistry and Biology, 2000, 7, 529-543.	6.0	131
75	The conformation of C-glycosyl compounds. Advances in Carbohydrate Chemistry and Biochemistry, 2000, 56, 235-284.	0.9	59
76	Solution conformation and dynamics of the trisaccharide fragments of the O-antigen of Vibrio cholerae O1, serotypes Inaba and Ogawa. Carbohydrate Research, 1999, 321, 88-95.	2.3	8
77	Free and protein-bound carbohydrate structures. Current Opinion in Structural Biology, 1999, 9, 549-555.	5.7	119
78	Solution conformation of a parallel DNA triple helix with 5â€² and 3â€² triplexâ€“duplex junctions. Structure, 1999, 7, 1-11.	3.3	60
79	Conformational and Thermodynamic Properties of Parallel Intramolecular Triple Helices Containing a DNA, RNA, or 2â€˜-OMeDNA Third Strand. Journal of the American Chemical Society, 1999, 121, 11063-11070.	13.7	54
80	Bovine Heart Galectin-1 Selects a Unique (Syn) Conformation of C-Lactose, a Flexible Lactose Analogue. Journal of the American Chemical Society, 1999, 121, 8995-9000.	13.7	93
81	Conformational Behavior of Aza-C-Glycosides:Â Experimental Demonstration of the Relative Role of theexo-anomericEffect and 1,3-Type Interactions in Controlling the Conformation of Regular Glycosides. Journal of the American Chemical Society, 1999, 121, 11318-11329.	13.7	58
82	Thermodynamic, Kinetic, and Conformational Properties of a Parallel Intermolecular DNA Triplex Containing 5â€˜ and 3â€˜ Junctions. Biochemistry, 1998, 37, 15188-15198.	2.5	35
83	The contribution of cytosine protonation to the stability of parallel DNA triple helices 1 1Edited by D. E. Draper. Journal of Molecular Biology, 1998, 275, 811-822.	4.2	142
84	Comparison of the solution structures of intramolecular DNA triple helices containing adjacent and non-adjacent CG{middle dot}C+ triplets. Nucleic Acids Research, 1998, 26, 3677-3686.	14.5	23
85	NMR investigations of protein-carbohydrate interactions: refined three-dimensional structure of the complex between hevein and methyl Â-chitobioside. Glycobiology, 1998, 8, 569-577.	2.5	75
86	Approaches to 1,1-disubstituted cinnolin-3-ylio oxides: synthesis and reactivity of a new class of heterocyclic betaines. Journal of the Chemical Society Perkin Transactions 1, 1997, , 2229-2236.	0.9	16
87	The use of the MM3âˆ— and ESFF force fields in conformational analysis of carbohydrate molecules in solution: The methyl Î±-lactoside case. Computational and Theoretical Chemistry, 1997, 395-396, 245-270.	1.5	21
88	Solution conformation and dynamics of a tetrasaccharide related to the Lewis(x) antigen deduced by NMR relaxation measurements. Journal of Biomolecular NMR, 1997, 10, 29-43.	2.8	46
89	Applications of nuclear magnetic resonance spectroscopy and molecular modeling to the study of protein-carbohydrate interactions. Journal of Molecular Graphics and Modelling, 1997, 15, 9-17.	2.4	15
90	A comparison of the geometry and of the energy results obtained by application of different molecular mechanics force fields to methyl Î±-lactoside and the C-analogue of lactose. Carbohydrate Research, 1997, 298, 15-49.	2.3	42

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91	Solution conformation dynamics of a tetrasaccharide related to the Lewisx antigen deduced by 1H NMR NOESY, ROESY, and T-ROESY measurements. Carbohydrate Research, 1997, 300, 3-10.	2.3	18
92	Experimental Evidence of Conformational Differences betweenC-Glycosides andO-Glycosides in Solution and in the Protein-Bound State:Â TheC-Lactose/O-Lactose Case. Journal of the American Chemical Society, 1996, 118, 10862-10871.	13.7	84
93	Exploration of the conformational flexibility of the LeXrelated oligosaccharide Chemical Communications, 1996, , 421-422.	4.1	12
94	Unterschiede zwischen den Konformationen von Oâ€•und Câ€€Glycosiden im proteingebundenen Zustand: Ricin B, ein Galactoseâ€bindendes Protein, erkennt unterschiedliche Konformationen von Câ€Lactose und dessen Oâ€Analogon. Angewandte Chemie, 1996, 108, 323-326.	2.0	8
95	Conformational Differences of O- and C-Glycosides in the Protein-Bound State: Different Conformations of C-Lactose and Its O-Analogue are Recognized by Ricin B, a Galactose-Binding Protein. Angewandte Chemie International Edition in English, 1996, 35, 303-306.	4.4	56
96	The Interaction of Hevein with N-acetylglucosamine-containing Oligosaccharides. Solution Structure of Hevein Complexed to Chitobiose. FEBS Journal, 1995, 230, 621-633.	0.2	99
97	Studies of the Bound Conformations of Methyl alpha-Lactoside and Methyl beta-Allolactoside to Ricin B Chain Using Transferred NOE Experiments in the Laboratory and Rotating Frames, Assisted by Molecular Mechanics and Dynamics Calculations. FEBS Journal, 1995, 233, 618-630.	0.2	60
98	The use of the AMBER force field in conformational analysis of carbohydrate molecules: Determination of the solution conformation of methyl ?-lactoside by NMR spectroscopy, assisted by molecular mechanics and dynamics calculations. Biopolymers, 1995, 35, 55-73.	2.4	102
99	Experimental and theoretical evidences of conformational flexibility of C-glycosides. NMR analysis and molecular mechanics calculations of C-lactose and its O-analogue. Tetrahedron Letters, 1995, 36, 6329-6332.	1.4	40
100	Conformational studies of a trisaccharide epitope in solution by using NMR spectroscopy and molecular mechanics and dynamics calculations with the MM3* program. Journal of the Chemical Society Perkin Transactions II, 1995, , 713-721.	0.9	4
101	Oligosaccharides Structurally Related to E-Selectin Ligands Are Inhibitors of Neural Cell Division: Synthesis, Conformational Analysis, and Biological Activity. Journal of Organic Chemistry, 1995, 60, 1502-1519.	3.2	41
102	The use of CVFF and CFF91 force fields in conformational analysis of carbohydrate molecules. Comparison with AMBER molecular mechanics and dynamics calculations for methyl Î±-lactoside. International Journal of Biological Macromolecules, 1995, 17, 137-148.	7.5	88
103	Conformational studies on Î²-galactopyranosyl-(1->3) and (1->4)-xylopyranosides by NMR, molecular mechanics, molecular dynamics, and semiempirical. Tetrahedron, 1994, 50, 6417-6432.	1.9	10
104	Synthesis of Quaternary Indoxyl Derivatives by Intramolecular Cyclization of Some Substituted Acetophenones. Liebigs Annalen Der Chemie, 1994, 1994, 679-684.	0.8	15
105	Reactivity of 1,1-disubstituted indazol-3-ylio oxides: synthesis of some substituted indazolols and indazolinones. Journal of the Chemical Society Perkin Transactions 1, 1993, , 1119-1127.	0.9	34