

Jesus Angulo

List of Publications by Year in descending order

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91
papers

2,805
citations

147786

31
h-index

214788

47
g-index

100
all docs

100
docs citations

100
times ranked

3410
citing authors

#	ARTICLE	IF	CITATIONS
1	Ligandâ€“Receptor Binding Affinities from Saturation Transfer Difference (STD) NMR Spectroscopy: The Binding Isotherm of STD Initial Growth Rates. <i>Chemistry - A European Journal</i> , 2010, 16, 7803-7812.	3.3	161
2	STD-NMR: application to transient interactions between biomoleculesâ€“a quantitative approach. <i>European Biophysics Journal</i> , 2011, 40, 1357-1369.	2.2	140
3	The Activation of Fibroblast Growth Factors by Heparin: Synthesis, Structure, and Biological Activity of Heparin-Like Oligosaccharides. <i>ChemBioChem</i> , 2001, 2, 673-685.	2.6	89
4	Elucidation of a sialic acid metabolism pathway in mucus-foraging <i>Ruminococcus gnavus</i> unravels mechanisms of bacterial adaptation to the gut. <i>Nature Microbiology</i> , 2019, 4, 2393-2404.	13.3	83
5	Structure of a Glycomimetic Ligand in the Carbohydrate Recognition Domain of C-type Lectin DC-SIGN. Structural Requirements for Selectivity and Ligand Design. <i>Journal of the American Chemical Society</i> , 2013, 135, 2518-2529.	13.7	75
6	Unravelling the specificity and mechanism of sialic acid recognition by the gut symbiont <i>Ruminococcus gnavus</i> . <i>Nature Communications</i> , 2017, 8, 2196.	12.8	74
7	Gold Nanoparticles Coated with Oligomannosides of HIV-1 Glycoprotein gp120 Mimic the Carbohydrate Epitope of Antibody 2G12. <i>Journal of Molecular Biology</i> , 2011, 410, 798-810.	4.2	72
8	Differential Epitope Mapping by STD NMR Spectroscopy To Reveal the Nature of Proteinâ€“Ligand Contacts. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 15289-15293.	13.8	71
9	Conformational Flexibility of a Synthetic Glycosylaminoglycan Bound to a Fibroblast Growth Factor. FGF-1 Recognizes Both the 1C4 and 2SO Conformations of a Bioactive Heparin-like Hexasaccharide. <i>Journal of the American Chemical Society</i> , 2005, 127, 5778-5779.	13.7	69
10	Blood Group B Galactosyltransferase:Â Insights into Substrate Binding from NMR Experiments. <i>Journal of the American Chemical Society</i> , 2006, 128, 13529-13538.	13.7	68
11	Saturation Transfer Difference (STD) NMR Spectroscopy Characterization of Dual Binding Mode of a Mannose Disaccharide to DCâ€“SIGN. <i>ChemBioChem</i> , 2008, 9, 2225-2227.	2.6	63
12	Langerinâ€“Heparin Interaction: Two Binding Sites for Small and Large Ligands As Revealed by a Combination of NMR Spectroscopy and Cross-Linking Mapping Experiments. <i>Journal of the American Chemical Society</i> , 2015, 137, 4100-4110.	13.7	61
13	The Activation of Fibroblast Growth Factors (FGFs) by Glycosaminoglycans: Influence of the Sulfation Pattern on the Biological Activity of FGF-1. <i>ChemBioChem</i> , 2004, 5, 55-61.	2.6	59
14	Solution NMR structure of a human FGF-1 monomer, activated by a hexasaccharide heparin-analogue. <i>FEBS Journal</i> , 2006, 273, 4716-4727.	4.7	57
15	Cytotoxicity of Pyrazine-Based Cyclometalated (C ^N _{sup>pz</sup>C)Au(III) Carbene Complexes: Impact of the Nature of the Ancillary Ligand on the Biological Properties. <i>Inorganic Chemistry</i>, 2017, 56, 5728-5740.}	4.0	54
16	Selective Targeting of Dendritic Cellsâ€“Specific Intercellular Adhesion Moleculeâ€“3â€“Grabbing Nonintegrin (DCâ€“SIGN) with Mannoseâ€“Based Glycomimetics: Synthesis and Interaction Studies of Bis(benzylamide) Derivatives of a Pseudomannobioside. <i>Chemistry - A European Journal</i> , 2013, 19, 4786-4797.	3.3	53
17	Structural basis for arginine glycosylation of host substrates by bacterial effector proteins. <i>Nature Communications</i> , 2018, 9, 4283.	12.8	52
18	Fucosidases from the human gut symbiont <i>Ruminococcus gnavus</i> . <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 675-693.	5.4	52

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19	sp ² -aminosugar <i>O</i> , <i>S</i> , and <i>N</i> -Glycosides as Conformational Mimics of β -Linked Disaccharides; Implications for Glycosidase Inhibition. <i>Chemistry - A European Journal</i> , 2012, 18, 8527-8539.	3.3	51
20	Supramolecular Amino Acid Based Hydrogels: Probing the Contribution of Additive Molecules using NMR Spectroscopy. <i>Chemistry - A European Journal</i> , 2017, 23, 8014-8024.	3.3	49
21	A Solution NMR Study of the Interactions of Oligomannosides and the Anti-HIV-1 2G12 Antibody Reveals Distinct Binding Modes for Branched Ligands*. <i>Chemistry - A European Journal</i> , 2011, 17, 1547-1560.	3.3	46
22	Synthesis and structural study of two new heparin-like hexasaccharides. <i>Organic and Biomolecular Chemistry</i> , 2003, 1, 2253-2266.	2.8	40
23	Hydrophobization of Cellulose Nanocrystals for Aqueous Colloidal Suspensions and Gels. <i>Biomacromolecules</i> , 2020, 21, 1812-1823.	5.4	38
24	The activation of fibroblast growth factors by heparin: Synthesis and structural study of rationally modified heparin-like oligosaccharides. <i>Canadian Journal of Chemistry</i> , 2002, 80, 917-936.	1.1	37
25	The heparin-Ca ²⁺ interaction: the influence of the O-sulfation pattern on binding. <i>Carbohydrate Research</i> , 2004, 339, 975-983.	2.3	36
26	Synthesis of chondroitin/dermatan sulfate-like oligosaccharides and evaluation of their protein affinity by fluorescence polarization. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 3510.	2.8	36
27	Structural basis for the role of serine-rich repeat proteins from <i>Lactobacillus reuteri</i> in gut microbe-host interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2706-E2715.	7.1	35
28	STD NMR as a Technique for Ligand Screening and Structural Studies. <i>Methods in Enzymology</i> , 2019, 615, 423-451.	1.0	34
29	Dynamic properties of biologically active synthetic heparin-like hexasaccharides. <i>Glycobiology</i> , 2005, 15, 1008-1015.	2.5	33
30	Neutralization of a common cold virus by concatemers of the third ligand binding module of the VLDL-receptor strongly depends on the number of modules. <i>Virology</i> , 2005, 338, 259-269.	2.4	32
31	NMR Analysis of Carbohydrate-Protein Interactions. <i>Methods in Enzymology</i> , 2006, 416, 12-30.	1.0	32
32	Effect of the Substituents of the Neighboring Ring in the Conformational Equilibrium of Iduronate in Heparin-like Trisaccharides. <i>Chemistry - A European Journal</i> , 2012, 18, 16319-16331.	3.3	32
33	Tunable Supramolecular Gel Properties by Varying Thermal History. <i>Chemistry - A European Journal</i> , 2019, 25, 7881-7887.	3.3	32
34	Understanding heat driven gelation of anionic cellulose nanofibrils: Combining saturation transfer difference (STD) NMR, small angle X-ray scattering (SAXS) and rheology. <i>Journal of Colloid and Interface Science</i> , 2019, 535, 205-213.	9.4	32
35	Mechanically Robust Gels Formed from Hydrophobized Cellulose Nanocrystals. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19318-19322.	8.0	30
36	Thermosensitive supramolecular and colloidal hydrogels via self-assembly modulated by hydrophobized cellulose nanocrystals. <i>Cellulose</i> , 2019, 26, 529-542.	4.9	30

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37	Substituent interference on supramolecular assembly in urea gelators: synthesis, structure prediction and NMR. <i>Soft Matter</i> , 2016, 12, 4034-4043.	2.7	29
38	Synthesis of amine-functionalized heparin oligosaccharides for the investigation of carbohydrate-protein interactions in microtiter plates. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 2146.	2.8	28
39	Insights into the Glycosaminoglycan-Mediated Cytotoxic Mechanism of Eosinophil Cationic Protein Revealed by NMR. <i>ACS Chemical Biology</i> , 2013, 8, 144-151.	3.4	27
40	Conformations of the iduronate ring in short heparin fragments described by time-averaged distance restrained molecular dynamics. <i>Glycobiology</i> , 2013, 23, 1220-1229.	2.5	27
41	The Heparin-Ca ²⁺ Interaction: Structure of the Ca ²⁺ Binding Site. <i>European Journal of Organic Chemistry</i> , 2002, 2002, 2367.	2.4	26
42	A molecular dynamics description of the conformational flexibility of the iduronate ring in glycosaminoglycans. <i>Chemical Communications</i> , 2003, , 1512-1513.	4.1	26
43	Fragment-based Screening of the Donor Substrate Specificity of Human Blood Group B Galactosyltransferase Using Saturation Transfer Difference NMR. <i>Journal of Biological Chemistry</i> , 2006, 281, 32728-32740.	3.4	26
44	Assembling different antennas of the gp120 high mannose-type glycans on gold nanoparticles provides superior binding to the anti-HIV antibody 2G12 than the individual antennas. <i>Carbohydrate Research</i> , 2015, 405, 102-109.	2.3	26
45	Uncovering a novel molecular mechanism for scavenging sialic acids in bacteria. <i>Journal of Biological Chemistry</i> , 2020, 295, 13724-13736.	3.4	26
46	Discovery of Small Molecule WWP2 Ubiquitin Ligase Inhibitors. <i>Chemistry - A European Journal</i> , 2018, 24, 17677-17680.	3.3	25
47	FUT8-Directed Core Fucosylation of N-glycans Is Regulated by the Glycan Structure and Protein Environment. <i>ACS Catalysis</i> , 2021, 11, 9052-9065.	11.2	25
48	Importance of the polarity of the glycosaminoglycan chain on the interaction with FGF-1. <i>Glycobiology</i> , 2014, 24, 1004-1009.	2.5	24
49	Ginsenosides Act As Positive Modulators of P2X4 Receptors. <i>Molecular Pharmacology</i> , 2019, 95, 210-221.	2.3	23
50	3D structure of a heparin mimetic analogue of a FGF-1 activator. A NMR and molecular modelling study. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 8269.	2.8	22
51	Insights into molecular recognition of LewisX mimics by DC-SIGN using NMR and molecular modelling. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 7705.	2.8	21
52	Backbone dynamics of a biologically active human FGF-1 monomer, complexed to a hexasaccharide heparin-analogue, by 15N NMR relaxation methods. <i>Journal of Biomolecular NMR</i> , 2006, 35, 225-239.	2.8	20
53	Bug Off Pain: An Educational Virtual Reality Game on Spider Venoms and Chronic Pain for Public Engagement. <i>Journal of Chemical Education</i> , 2019, 96, 1486-1490.	2.3	20
54	The conformational behaviour of 1,2-trehalose-like disaccharides and their C-glycosyl, imino-C-glycosyl and carbagalactose analogues depends on the chemical nature of the modification: an NMR investigation. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 519-527.	1.8	19

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55	Mapping a novel positive allosteric modulator binding site in the central vestibule region of human P2X7. <i>Scientific Reports</i> , 2019, 9, 3231.	3.3	19
56	Detection and quantitative analysis of two independent binding modes of a small ligand responsible for DC-SIGN clustering. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 335-344.	2.8	18
57	Chemoenzymatic Synthesis of Fluorinated Cellodextrins Identifies a New Allomorph for Cellulose-Like Materials**. <i>Chemistry - A European Journal</i> , 2021, 27, 1374-1382.	3.3	18
58	Interaction of heparin with Ca ²⁺ : A model study with a synthetic heparin-like hexasaccharide. <i>Israel Journal of Chemistry</i> , 2000, 40, 289-299.	2.3	17
59	Carbohydrate~Carbohydrate Interaction Prominence in 3D Supramolecular Self-Assembly. <i>Journal of Physical Chemistry B</i> , 2008, 112, 11595-11600.	2.6	17
60	The binding of TIA-1 to RNA C-rich sequences is driven by its C-terminal RRM domain. <i>RNA Biology</i> , 2014, 11, 766-776.	3.1	16
61	Differential Epitope Mapping by STD NMR Spectroscopy To Reveal the Nature of Protein~Ligand Contacts. <i>Angewandte Chemie</i> , 2017, 129, 15491-15495.	2.0	16
62	Surfactant controlled zwitterionic cellulose nanofibril dispersions. <i>Soft Matter</i> , 2018, 14, 7793-7800.	2.7	16
63	Synthesis, Biological Evaluation, WAC and NMR Studies of <i>S</i> -Galactosides and Non-Carbohydrate Ligands of Cholera Toxin Based on Polyhydroxyalkylfuroate Moieties. <i>Chemistry - A European Journal</i> , 2013, 19, 17989-18003.	3.3	15
64	Identification of selective protein~protein interaction inhibitors using efficient <i>in silico</i> peptide-directed ligand design. <i>Chemical Science</i> , 2019, 10, 4502-4508.	7.4	15
65	Serine-rich repeat protein adhesins from <i>Lactobacillus reuteri</i> display strain specific glycosylation profiles. <i>Glycobiology</i> , 2019, 29, 45-58.	2.5	15
66	Deriving Ligand Orientation in Weak Protein~Ligand Complexes by DEEP~STD NMR Spectroscopy in the Absence of Protein Chemical Shift Assignment. <i>ChemBioChem</i> , 2019, 20, 340-344.	2.6	14
67	Unravelling the Specificity of Laminaribiose Phosphorylase from <i>Paenibacillus</i> sp. YM1 towards Donor Substrates Glucose/Mannose 1-Phosphate by Using X-ray Crystallography and Saturation Transfer Difference NMR Spectroscopy. <i>ChemBioChem</i> , 2019, 20, 181-192.	2.6	13
68	Structural Basis of Glycerophosphodiester Recognition by the <i>Mycobacterium tuberculosis</i> Substrate-Binding Protein UgpB. <i>ACS Chemical Biology</i> , 2019, 14, 1879-1887.	3.4	13
69	Structural basis of trehalose recognition by the mycobacterial LpqY-SugABC transporter. <i>Journal of Biological Chemistry</i> , 2021, 296, 100307.	3.4	13
70	The solution conformation of glycosyl inositols related to inositolphosphoglycan (IPG) mediators. <i>Tetrahedron: Asymmetry</i> , 2000, 11, 37-51.	1.8	12
71	STD NMR Study of the Interactions between Antibody 2G12 and Synthetic Oligomannosides that Mimic Selected Branches of gp120 Glycans. <i>ChemBioChem</i> , 2012, 13, 1357-1365.	2.6	12
72	Kinetics of intramolecular chemical exchange by initial growth rates of spin saturation transfer difference experiments (SSTD NMR). <i>Chemical Communications</i> , 2015, 51, 10222-10225.	4.1	10

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73	The human gut symbiont <i>Ruminococcus gnavus</i> shows specificity to blood group A antigen during mucin glycan foraging: Implication for niche colonisation in the gastrointestinal tract. <i>PLoS Biology</i> , 2021, 19, e3001498.	5.6	10
74	Saturation transfer difference NMR on the integral trimeric membrane transport protein GltPh determines cooperative substrate binding. <i>Scientific Reports</i> , 2020, 10, 16483.	3.3	9
75	Unveiling the “Three-Finger Pharmacophore” Required for p53-MDM2 Inhibition by Saturation Transfer Difference (STD) NMR Initial Growth Rates Approach. <i>Chemistry - A European Journal</i> , 2016, 22, 5858-5862.	3.3	8
76	Exploring Multi-Subsite Binding Pockets in Proteins: DEEP-STD NMR Fingerprinting and Molecular Dynamics Unveil a Cryptic Subsite at the GM1 Binding Pocket of Cholera Toxin... <i>B. Chemistry - A European Journal</i> , 2020, 26, 10024-10034.	3.3	7
77	Spin diffusion transfer difference (SDTD) NMR: An advanced method for the characterisation of water structuration within particle networks. <i>Journal of Colloid and Interface Science</i> , 2021, 594, 217-227.	9.4	6
78	Molecular recognition of natural and non-natural substrates by cellodextrin phosphorylase from <i>Ruminiclostridium thermocellum</i> investigated by NMR spectroscopy. <i>Chemistry - A European Journal</i> , 2021, 27, 15688-15698.	3.3	6
79	Self-Correcting Method for the Measurement of Free Calcium and Magnesium Concentrations by ¹ H NMR. <i>Analytical Chemistry</i> , 2019, 91, 14442-14450.	6.5	5
80	Self-acetylation at the active site of phosphoenolpyruvate carboxykinase (PCK1) controls enzyme activity. <i>Journal of Biological Chemistry</i> , 2021, 296, 100205.	3.4	5
81	Structures of Glycans Bound to Receptors from Saturation Transfer Difference (STD) NMR Spectroscopy: Quantitative Analysis by Using CORCEMA-ST. <i>Methods in Molecular Biology</i> , 2015, 1273, 475-487.	0.9	5
82	NMR studies on carbohydrate interactions with DC-SIGN towards a quantitative STD analysis. <i>Pure and Applied Chemistry</i> , 2013, 85, 1771-1787.	1.9	4
83	Spin Saturation Transfer Difference NMR (SSTD NMR): A New Tool to Obtain Kinetic Parameters of Chemical Exchange Processes. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	4
84	Spatially Resolved STD-NMR Applied to the Study of Solute Transport in Biphasic Systems: Application to Protein-Ligand Interactions. <i>Natural Product Communications</i> , 2019, 14, 1934578X1984978.	0.5	3
85	Multifunctional nanoassemblies target bacterial lipopolysaccharides for enhanced antimicrobial DNA delivery. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 195, 111266.	5.0	3
86	Fucosyltransferase-specific inhibition via next generation of fucose mimetics. <i>Chemical Communications</i> , 2021, 57, 1145-1148.	4.1	3
87	NleB/SseK-catalyzed arginine-glycosylation and enteropathogen virulence are finely tuned by a single variable position contiguous to the catalytic machinery. <i>Chemical Science</i> , 2021, 12, 12181-12191.	7.4	3
88	Cross-reactivity of glycan-reactive HIV-1 broadly neutralizing antibodies with parasite glycans. <i>Cell Reports</i> , 2022, 38, 110611.	6.4	3
89	A STD-NMR Study of the Interaction of the <i>Anabaena</i> Ferredoxin-NADP ⁺ Reductase with the Coenzyme. <i>Molecules</i> , 2014, 19, 672-685.	3.8	1
90	Correction: Substituent interference on supramolecular assembly in urea gelators: synthesis, structure prediction and NMR. <i>Soft Matter</i> , 2016, 12, 5489-5489.	2.7	1

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91	Multifrequency STD NMR Unveils the Interactions of Antibiotics With <i>Burkholderia multivorans</i> Biofilm Exopolysaccharide. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 727980.	3.5	1