Jesus Angulo

List of Publications by Year
in descending order

91 papers	2,805 citations	147801 31 h-index	214800 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. Chemistry - A European Journal, 2010, 16, 7803-7812.	3.3	161
2	STD-NMR: application to transient interactions between biomoleculesâ€"a quantitative approach. European Biophysics Journal, 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. ChemBioChem, 2001, 2, 673-685.	2.6	89
4	Elucidation of a sialic acid metabolism pathway in mucus-foraging Ruminococcus gnavus unravels mechanisms of bacterial adaptation to the gut. Nature Microbiology, 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. Journal of the American Chemical Society, 2013, 135, 2518-2529.	13.7	75
6	Unravelling the specificity and mechanism of sialic acid recognition by the gut symbiont Ruminococcus gnavus. Nature Communications, 2017, 8, 2196.	12.8	74
7	Gold Nanoparticles Coated with Oligomannosides of HIV-1 Glycoprotein gp120 Mimic the Carbohydrate Epitope of Antibody 2G12. Journal of Molecular Biology, 2011, 410, 798-810.	4.2	72
8	Differential Epitope Mapping by STD NMR Spectroscopy To Reveal the Nature of Proteinâ€"Ligand Contacts. Angewandte Chemie - International Edition, 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. Journal of the American Chemical Society, 2005, 127, 5778-5779.	13.7	69
10	Blood Group B Galactosyltransferase:Â Insights into Substrate Binding from NMR Experiments. Journal of the American Chemical Society, 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. ChemBioChem, 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. Journal of the American Chemical Society, 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. ChemBioChem, 2004, 5, 55-61.	2.6	59
14	Solution NMR structure of a human FGF-1 monomer, activated by a hexasaccharide heparin-analogue. FEBS Journal, 2006, 273, 4716-4727.	4.7	57
15	Cytotoxicity of Pyrazine-Based Cyclometalated (C^N^{pz}^C)Au(III) Carbene Complexes: Impact of the Nature of the Ancillary Ligand on the Biological Properties. Inorganic Chemistry, 2017, 56, 5728-5740.	4.0	54
16	Selective Targeting of Dendritic Cellâ€Specific Intercellular Adhesion Moleculeâ€3â€Grabbing Nonintegrin (DCâ€SIGN) with Mannoseâ€Based Glycomimetics: Synthesis and Interaction Studies of Bis(benzylamide) Derivatives of a Pseudomannobioside. Chemistry - A European Journal, 2013, 19, 4786-4797.	3.3	53
17	Structural basis for arginine glycosylation of host substrates by bacterial effector proteins. Nature Communications, 2018, 9, 4283.	12.8	52
18	Fucosidases from the human gut symbiont Ruminococcus gnavus. Cellular and Molecular Life Sciences, 2021, 78, 675-693.	5.4	52

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19	sp²â€Iminosugar <i>O</i>â€, <i>S</i>â€, and <i>N</i>â€Glycosides as Conformational Mimics of Î±â€Linked Disaccharides; Implications for Glycosidase Inhibition. Chemistry - A European Journal, 2012, 18, 8527-8539.	3.3	51
20	Supramolecular Amino Acid Based Hydrogels: Probing the Contribution of Additive Molecules using NMR Spectroscopy. Chemistry - A European Journal, 2017, 23, 8014-8024.	3.3	49
21	A Solution NMR Study of the Interactions of Oligomannosides and the Antiâ€HIVâ€1 2G12 Antibody Reveals Distinct Binding Modes for Branched Ligands*. Chemistry - A European Journal, 2011, 17, 1547-1560.	3.3	46
22	Synthesis and structural study of two new heparin-like hexasaccharides. Organic and Biomolecular Chemistry, 2003, 1, 2253-2266.	2.8	40
23	Hydrophobization of Cellulose Nanocrystals for Aqueous Colloidal Suspensions and Gels. Biomacromolecules, 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. Canadian Journal of Chemistry, 2002, 80, 917-936.	1.1	37
25	The heparinâ€“Ca2+ interaction: the influence of the O-sulfation pattern on binding. Carbohydrate Research, 2004, 339, 975-983.	2.3	36
26	Synthesis of chondroitin/dermatan sulfate-like oligosaccharides and evaluation of their protein affinity by fluorescence polarization. Organic and Biomolecular Chemistry, 2013, 11, 3510.	2.8	36
27	Structural basis for the role of serine-rich repeat proteins from <i>Lactobacillus reuteri</i> in gut microbeâ€“host interactions. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2706-E2715.	7.1	35
28	STD NMR as a Technique for Ligand Screening and Structural Studies. Methods in Enzymology, 2019, 615, 423-451.	1.0	34
29	Dynamic properties of biologically active synthetic heparin-like hexasaccharides. Glycobiology, 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. Virology, 2005, 338, 259-269.	2.4	32
31	NMR Analysis of Carbohydrateâ€“Protein Interactions. Methods in Enzymology, 2006, 416, 12-30.	1.0	32
32	Effect of the Substituents of the Neighboring Ring in the Conformational Equilibrium of Iduronate in Heparinâ€like Trisaccharides. Chemistry - A European Journal, 2012, 18, 16319-16331.	3.3	32
33	Tunable Supramolecular Gel Properties by Varying Thermal History. Chemistry - A European Journal, 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. Journal of Colloid and Interface Science, 2019, 535, 205-213.	9.4	32
35	Mechanically Robust Gels Formed from Hydrophobized Cellulose Nanocrystals. ACS Applied Materials & Interfaces, 2018, 10, 19318-19322.	8.0	30
36	Thermosensitive supramolecular and colloidal hydrogels via self-assembly modulated by hydrophobized cellulose nanocrystals. Cellulose, 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. Soft Matter, 2016, 12, 4034-4043.	2.7	29
38	Synthesis of amine-functionalized heparin oligosaccharides for the investigation of carbohydrateâ€“protein interactions in microtiter plates. Organic and Biomolecular Chemistry, 2012, 10, 2146.	2.8	28
39	Insights into the Glycosaminoglycan-Mediated Cytotoxic Mechanism of Eosinophil Cationic Protein Revealed by NMR. ACS Chemical Biology, 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. Glycobiology, 2013, 23, 1220-1229.	2.5	27
41	The Heparinâ^'Ca2+ Interaction: Structure of the Ca2+ Binding Site. European Journal of Organic Chemistry, 2002, 2002, 2367.	2.4	26
42	A molecular dynamics description of the conformational flexibility of thel-iduronate ring in glycosaminoglycans. Chemical Communications, 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. Journal of Biological Chemistry, 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. Carbohydrate Research, 2015, 405, 102-109.	2.3	26
45	Uncovering a novel molecular mechanism for scavenging sialic acids in bacteria. Journal of Biological Chemistry, 2020, 295, 13724-13736.	3.4	26
46	Discovery of Small Molecule WWP2 Ubiquitin Ligase Inhibitors. Chemistry - A European Journal, 2018, 24, 17677-17680.	3.3	25
47	FUT8-Directed Core Fucosylation of N-glycans Is Regulated by the Glycan Structure and Protein Environment. ACS Catalysis, 2021, 11, 9052-9065.	11.2	25
48	Importance of the polarity of the glycosaminoglycan chain on the interaction with FGF-1. Glycobiology, 2014, 24, 1004-1009.	2.5	24
49	Ginsenosides Act As Positive Modulators of P2X4 Receptors. Molecular Pharmacology, 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. Organic and Biomolecular Chemistry, 2013, 11, 8269.	2.8	22
51	Insights into molecular recognition of LewisX mimics by DC-SIGN using NMR and molecular modelling. Organic and Biomolecular Chemistry, 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. Journal of Biomolecular NMR, 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. Journal of Chemical Education, 2019, 96, 1486-1490.	2.3	20
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	Mapping a novel positive allosteric modulator binding site in the central vestibule region of human P2X7. Scientific Reports, 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. Organic and Biomolecular Chemistry, 2016, 14, 335-344.	2.8	18
57	Chemoenzymatic Synthesis of Fluorinated Cellodextrins Identifies a New Allomorph for Celluloseâ€Like Materials**. Chemistry - A European Journal, 2021, 27, 1374-1382.	3.3	18
58	Interaction of heparin with Ca2+: A model study with a synthetic heparin-like hexasaccharide. Israel Journal of Chemistry, 2000, 40, 289-299.	2.3	17
59	Carbohydrateâˆ'Carbohydrate Interaction Prominence in 3D Supramolecular Self-Assembly. Journal of Physical Chemistry B, 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. RNA Biology, 2014, 11, 766-776.	3.1	16
61	Differential Epitope Mapping by STD NMR Spectroscopy To Reveal the Nature of Proteinâ€“Ligand Contacts. Angewandte Chemie, 2017, 129, 15491-15495.	2.0	16
62	Surfactant controlled zwitterionic cellulose nanofibril dispersions. Soft Matter, 2018, 14, 7793-7800.	2.7	16
63	Synthesis, Biological Evaluation, WAC and NMR Studies of <i>S</i>â€Galactosides and Nonâ€Carbohydrate Ligands of Cholera Toxin Based on Polyhydroxyalkylfuroate Moieties. Chemistry - A European Journal, 2013, 19, 17989-18003.	3.3	15
64	Identification of selective proteinâ€“protein interaction inhibitors using efficient <i>in silico</i> peptide-directed ligand design. Chemical Science, 2019, 10, 4502-4508.	7.4	15
65	Serine-rich repeat protein adhesins from<i>Lactobacillus reuteri</i>display strain specific glycosylation profiles. Glycobiology, 2019, 29, 45-58.	2.5	15
66	Deriving Ligand Orientation in Weak Proteinâ€“Ligand Complexes by DEEPâ€STD NMR Spectroscopy in the Absence of Protein Chemicalâ€Shift Assignment. ChemBioChem, 2019, 20, 340-344.	2.6	14
67	Unravelling the Specificity of Laminaribiose Phosphorylase from <i>Paenibacillus</i> sp. YMâ€1 towards Donor Substrates Glucose/Mannose 1â€Phosphate by Using Xâ€ray Crystallography and Saturation Transfer Difference NMR Spectroscopy. ChemBioChem, 2019, 20, 181-192.	2.6	13
68	Structural Basis of Glycerophosphodiester Recognition by the <i>Mycobacterium tuberculosis</i> Substrate-Binding Protein UgpB. ACS Chemical Biology, 2019, 14, 1879-1887.	3.4	13
69	Structural basis of trehalose recognition by the mycobacterial LpqY-SugABC transporter. Journal of Biological Chemistry, 2021, 296, 100307.	3.4	13
70	The solution conformation of glycosyl inositols related to inositolphosphoglycan (IPG) mediators. Tetrahedron: Asymmetry, 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. ChemBioChem, 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). Chemical Communications, 2015, 51, 10222-10225.	4.1	10

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73	The human gut symbiont Ruminococcus gnavus shows specificity to blood group A antigen during mucin glycan foraging: Implication for niche colonisation in the gastrointestinal tract. PLoS Biology, 2021, 19, e3001498.	5.6	10
74	Saturation transfer difference NMR on the integral trimeric membrane transport protein GltPh determines cooperative substrate binding. Scientific Reports, 2020, 10, 16483.	3.3	9
75	Unveiling the â€œThreeâ€Finger Pharmacophoreâ€•Required for p53â€“MDM2 Inhibition by Saturationâ€Transfer Difference (STD) NMR Initial Growthâ€Rates Approach. Chemistry - A European Journal, 2016, 22, 5858-5862.	3.3	8
76	Exploring Multiâ€Subsite Binding Pockets in Proteins: DEEPâ€STD NMR Fingerprinting and Molecular Dynamics Unveil a Cryptic Subsite at the GM1 Binding Pocket of Cholera Toxinâ€…B. Chemistry - A European Journal, 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. Journal of Colloid and Interface Science, 2021, 594, 217-227.	9.4	6
78	Molecular recognition of natural and nonâ€natural substrates by cellodextrin phosphorylase from Ruminiclostridium thermocellum investigated by NMR spectroscopy. Chemistry - A European Journal, 2021, 27, 15688-15698.	3.3	6
79	Self-Correcting Method for the Measurement of Free Calcium and Magnesium Concentrations by ¹H NMR. Analytical Chemistry, 2019, 91, 14442-14450.	6.5	5
80	Self-acetylation at the active site of phosphoenolpyruvate carboxykinase (PCK1) controls enzyme activity. Journal of Biological Chemistry, 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. Methods in Molecular Biology, 2015, 1273, 475-487.	0.9	5
82	NMR studies on carbohydrate interactions with DC-SIGN towards a quantitative STD analysis. Pure and Applied Chemistry, 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. Journal of Visualized Experiments, 2016, , .	0.3	4
84	Spatially Resolved STD-NMR Applied to the Study of Solute Transport in Biphasic Systems: Application to Protein-Ligand Interactions. Natural Product Communications, 2019, 14, 1934578X1984978.	0.5	3
85	Multifunctional nanoassemblies target bacterial lipopolysaccharides for enhanced antimicrobial DNA delivery. Colloids and Surfaces B: Biointerfaces, 2020, 195, 111266.	5.0	3
86	Fucosyltransferase-specific inhibition <i>via</i> next generation of fucose mimetics. Chemical Communications, 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. Chemical Science, 2021, 12, 12181-12191.	7.4	3
88	Cross-reactivity of glycan-reactive HIV-1 broadly neutralizing antibodies with parasite glycans. Cell Reports, 2022, 38, 110611.	6.4	3
89	A STD-NMR Study of the Interaction of the Anabaena Ferredoxin-NADP+ Reductase with the Coenzyme. Molecules, 2014, 19, 672-685.	3.8	1
90	Correction: Substituent interference on supramolecular assembly in urea gelators: synthesis, structure prediction and NMR. Soft Matter, 2016, 12, 5489-5489.	2.7	1

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