## Juan Luis Asensio

List of Publications by Year in descending order

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

#	Article	IF	CITATIONS
1	Carbohydrate–Aromatic Interactions. Accounts of Chemical Research, 2013, 46, 946-954.	15.6	394
2	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
3	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
4	Serine versus Threonine Glycosylation:  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
5	Free and protein-bound carbohydrate structures. Current Opinion in Structural Biology, 1999, 9, 549-555.	5.7	119
6	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
7	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
8	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
9	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
10	The use of CVFF and CFF91 force fields in conformational analysis of carbohydrate molecules. Comparison with AMBER molecular mechanics and dynamics calculations for methyl α-lactoside. International Journal of Biological Macromolecules, 1995, 17, 137-148.	7.5	88
11	Conformational Selection of Glycomimetics at Enzyme Catalytic Sites:  Experimental Demonstration of the Binding of Distinct High-Energy Distorted Conformations of C-, S-, and O-Glycosides by E. Coli β-Galactosidases. Journal of the American Chemical Society, 2002, 124, 4804-4810.	13.7	85
12	Experimental Evidence of Conformational Differences between C-Glycosides and O-Glycosides in Solution and in the Protein-Bound State: Â The C-Lactose / O-Lactose Case. Journal of the American Chemical Society, 1996, 118, 10862-10871.	13.7	84
13	Conformational Differences Between O- and C-Glycosides: Thel±-O-Man-(1→1)-l²-Gal/l±-C-Man-(1→1)-l²-Gal Case Decisive Demonstration of the Importance of theexo-Anomeric Effect on the Conformation of Glycosides. Chemistry - A European Journal, 2000, 6, 1035-1041.	e- A 3.3	83
14	New Insights into α-GalNAcâ^'Ser Motif:  Influence of Hydrogen Bonding versus Solvent Interactions on the Preferred Conformation. Journal of the American Chemical Society, 2006, 128, 14640-14648.	13.7	78
15	NMR investigations of protein-carbohydrate interactions: refined three-dimensional structure of the complex between hevein and methyl Å-chitobioside. Glycobiology, 1998, 8, 569-577.	2.5	75
16	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
17	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
18	Deciphering the Nonâ€Equivalence of Serine and Threonine <i>O</i> â€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

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19	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
20	Solution conformation of a parallel DNA triple helix with $5\hat{a}\in^2$ and $3\hat{a}\in^2$ triplex $\hat{a}\in^2$ triple	3.3	60
21	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
22	The conformation of C-glycosyl compounds. Advances in Carbohydrate Chemistry and Biochemistry, 2000, 56, 235-284.	0.9	59
23	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
24	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
25	Hevein Domains: An Attractive Model to Study Carbohydrate–Protein Interactions at Atomic Resolution. Advances in Carbohydrate Chemistry and Biochemistry, 2006, 60, 303-354.	0.9	55
26	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
27	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
28	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
29	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
30	Dissecting the Essential Role of Anomeric $\hat{l}^2$ -Triflates in Glycosylation Reactions. Journal of the American Chemical Society, 2020, 142, 12501-12514.	13.7	52
31	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
32	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
33	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
34	A thorough experimental study of CH/π interactions in water: quantitative structure–stability relationships for carbohydrate/aromatic complexes. Chemical Science, 2015, 6, 6076-6085.	7.4	48
35	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
36	NMR investigations of protein-carbohydrate interactions. FEBS Journal, 2000, 267, 3965-3978.	0.2	46

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37	A Dynamic Combinatorial Approach for the Analysis of Weak Carbohydrate/Aromatic Complexes: Dissecting Facial Selectivity in CH∫i€ Stacking Interactions. Journal of the American Chemical Society, 2013, 135, 3347-3350.	13.7	46
38	Glycosyl Oxocarbenium Ions: Structure, Conformation, Reactivity, and Interactions. Accounts of Chemical Research, 2021, 54, 2552-2564.	15.6	46
39	The Pattern of Distribution of Amino Groups Modulates the Structure and Dynamics of Natural Aminoglycosides:  Implications for RNA Recognition. Journal of the American Chemical Society, 2007, 129, 2849-2865.	13.7	44
40	A comparison of the geometry and of the energy results obtained by application of different molecular mechanics force fields to methyl $\hat{\mathbf{l}}_{\pm}$ -lactoside and the C-analogue of lactose. Carbohydrate Research, 1997, 298, 15-49.	2.3	42
41	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
42	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
43	Detection of Tumor-Associated Glycopeptides by Lectins: The Peptide Context Modulates Carbohydrate Recognition. ACS Chemical Biology, 2015, 10, 747-756.	3.4	39
44	Effect of $\hat{I}^2$ -O-Glucosylation on L-Ser and L-Thr Diamides: A Bias toward $\hat{I}_\pm$ -Helical Conformations. Chemistry - A European Journal, 2006, 12, 7864-7871.	3.3	36
45	Serine versus Threonine Glycosylation with $\hat{l}\pm\hat{a}\in \hat{l}>0\hat{a}\in \hat{l}$ GalNAc: Unexpected Selectivity in Their Molecular Recognition with Lectins. Chemistry - A European Journal, 2014, 20, 12616-12627.	3.3	36
46	Thermodynamic, Kinetic, and Conformational Properties of a Parallel Intermolecular DNA Triplex Containing 5†and 3†Junctions. Biochemistry, 1998, 37, 15188-15198.	2.5	35
47	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
48	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
49	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
50	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
51	NMR investigations of protein–carbohydrate interactions: insights into the topology of the bound conformation of a lactose isomer and β-galactosyl xyloses to mistletoe lectin and galectin-1. Biochimica Et Biophysica Acta - General Subjects, 2001, 1568, 225-236.	2.4	31
52	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
53	Modulating Weak Interactions for Molecular Recognition: A Dynamic Combinatorial Analysis for Assessing the Contribution of Electrostatics to the Stability of CH–π Bonds in Water. Angewandte Chemie - International Edition, 2015, 54, 4344-4348.	13.8	28
54	Transglycosylation products generated by Talaromyces amestolkiae GH3 $\hat{l}^2$ -glucosidases: effect of hydroxytyrosol, vanillin and its glucosides on breast cancer cells. Microbial Cell Factories, 2019, 18, 97.	4.0	28

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55	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
56	Toward the understanding of the structure and dynamics of protein–carbohydrate interactions: molecular dynamics studies of the complexes between hevein and oligosaccharidic ligands. Carbohydrate Research, 2004, 339, 985-994.	2.3	25
57	A glucotolerant $\hat{l}^2$ -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
58	Rational design of a Tn antigen mimic. Chemical Communications, 2011, 47, 5319.	4.1	24
59	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
60	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
61	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
62	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
63	The use of the MM3 $\hat{a}$ — and ESFF force fields in conformational analysis of carbohydrate molecules in solution: The methyl $\hat{l}_{\pm}$ -lactoside case. Computational and Theoretical Chemistry, 1997, 395-396, 245-270.	1.5	21
64	Thioglycoligase derived from fungal GH3 $\hat{l}^2$ -xylosidase is a multi-glycoligase with broad acceptor tolerance. Nature Communications, 2020, 11, 4864.	12.8	21
65	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
66	The conformational behaviour of $\hat{l}\pm,\hat{l}^2$ -trehalose-like disaccharides and their C-glycosyl, imino-C-glycosyl and carbagalactose analogues depends on the chemical nature of the modification: an NMR investigation. Tetrahedron: Asymmetry, 2005, 16, 519-527.	1.8	19
67	Engineering <i>O</i> àê€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
68	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
69	NMR-Based Analysis of Aminoglycoside Recognition by the Resistance Enzyme ANT(4′): 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
70	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
71	De Novo Design of Selective Quadruplex–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
72	Synthesis of Quaternary Indoxyl Derivatives by Intramolecular Cyclization of Some Substituted Acetophenones. Liebigs Annalen Der Chemie, 1994, 1994, 679-684.	0.8	15

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73	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
74	Sugar–Oligoamides: Boundâ€State Conformation and DNA Minorâ€Grooveâ€Binding Description by TRâ€NOES and Differentialâ€Frequency Saturationâ€Transferâ€Difference Experiments. Chemistry - A European Journal, 2008, 14, 2435-2442.	SY 3.3	15
75	Novel dimeric structure of phage i•29-encoded protein p56: insights into uracil-DNA glycosylase inhibition. Nucleic Acids Research, 2011, 39, 9779-9788.	14.5	15
76	Multiple Keys for a Single Lock: The Unusual Structural Plasticity of the Nucleotidyltransferase $(4\hat{a} \in ^2)$ /Kanamycin Complex. Chemistry - A European Journal, 2012, 18, 2875-2889.	3.3	13
77	Exploration of the conformational flexibility of the LeXrelated oligosaccharide Chemical Communications, 1996, , 421-422.	4.1	12
78	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
79	Role of Conserved Salt Bridges in Homeodomain Stability and DNA Binding. Journal of Biological Chemistry, 2009, 284, 23765-23779.	3.4	12
80	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
81	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
82	A dynamic perspective on the molecular recognition of chitooligosaccharide ligands by hevein domains. Carbohydrate Research, 2005, 340, 1039-1049.	2.3	11
83	Singleâ€Step Glycosylations with <sup>13</sup> Câ€Labelled Sulfoxide Donors: A Lowâ€Temperature NMR Cartography of the Distinguishing Mechanistic Intermediates. Chemistry - A European Journal, 2021, 27, 2030-2042.	3.3	11
84	Conformational studies on $\hat{l}^2$ -galactopyranosyl-(1->3) and (1->4)-xylopyranosides by NMR, molecular mechanics, molecular dynamics, and semiempirical. Tetrahedron, 1994, 50, 6417-6432.	1.9	10
85	Structural characterization of an unprecedented lectin-like antitumoral anti-MUC1 antibody. Chemical Communications, 2020, 56, 15137-15140.	4.1	10
86	Structural Basis for Membrane Anchorage of Viral ϕ29 DNA during Replication*. Journal of Biological Chemistry, 2005, 280, 42486-42488.	3.4	9
87	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
88	Rescue of the streptomycin antibiotic activity by using streptidine as a "decoy acceptor―for the aminoglycoside-inactivating enzyme adenyl transferase. Chemical Communications, 2007, , 2829-2831.	4.1	9
89	The Unusual Nucleotide Recognition Properties of the Resistance Enzyme ANT(4′): Inorganic Tri/Polyphosphate as a Substrate for Aminoglycoside Inactivation. Chemistry - A European Journal, 2010, 16, 8635-8640.	3.3	9
90	Selective modification of the $3\hat{a}\in^2\hat{a}\in^2$ -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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91	Unterschiede zwischen den Konformationen von O―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
92	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
93	Structure of the Functional Domain of φ29 Replication Organizer. Journal of Biological Chemistry, 2005, 280, 20730-20739.	3.4	8
94	Chemical Interrogation of Drug/RNA Complexes: From Chemical Reactivity to Drug Design. Angewandte Chemie - International Edition, 2013, 52, 3148-3151.	13.8	8
95	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
96	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
97	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
98	The solution conformation of C-glycosyl analogues of the sialyl-Tn antigen. Carbohydrate Research, 2007, 342, 1974-1982.	2.3	4
99	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
100	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
101	An Efficient and General Route to the Synthesis of Novel Aminoglycosides for RNA Binding. Synlett, 2011, 2019-222.	1.8	3
102	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
103	Conformational selection of non-hydrolyzable glycomimetics: the conformation of N,N $\hat{a}$ $\in$ 2-diacetylthiochitobiose bound to wheat germ agglutinin. Journal of the Chemical Society, Perkin Transactions 1, 2001, , 867-872.	1.3	2
104	Aromatic interactions in Glycochemistry: from molecular recognition to catalysis. Current Medicinal Chemistry, 2021, 28, .	2.4	1
105	De Novo Design of Selective Quadruplex–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