Jose M Andreu

List of Publications by Year
in descending order

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104
papers

6,130
citations

47006
47
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108
all docs

108
docs citations

108
times ranked

5190
citing authors

#	Article	IF	Citations
1	Taxanes: Microtubule and Centrosome Targets, and Cell Cycle Dependent Mechanisms of Action. Current Cancer Drug Targets, 2003, 3, 193-203.	1.6	318
2	The Microtubule Stabilizing Agent Laulimalide Does Not Bind in the Taxoid Site, Kills Cells Resistant to Paclitaxel and Epothilones, and May Not Require Its Epoxide Moiety for Activity. Biochemistry, 2002, 41, 9109-9115.	2.5	231
3	A new tubulin-binding site and pharmacophore for microtubule-destabilizing anticancer drugs. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13817-13821.	7.1	229
4	Microtubule Interactions with Chemically Diverse Stabilizing Agents: Thermodynamics of Binding to the Paclitaxel Site Predicts Cytotoxicity. Chemistry and Biology, 2005, 12, 1269-1279.	6.0	212
5	Peloruside A Does Not Bind to the Taxoid Site on Î²-Tubulin and Retains Its Activity in Multidrug-Resistant Cell Lines. Cancer Research, 2004, 64, 5063-5067.	0.9	191
6	Magnesium-induced Linear Self-association of the FtsZ Bacterial Cell Division Protein Monomer. Journal of Biological Chemistry, 2000, 275, 11740-11749.	3.4	173
7	Novel Polyphenol Oxidase Mined from a Metagenome Expression Library of Bovine Rumen. Journal of Biological Chemistry, 2006, 281, 22933-22942.	3.4	168
8	Essential Cell Division Protein FtsZ Assembles into One Monomer-thick Ribbons under Conditions Resembling the Crowded Intracellular Environment. Journal of Biological Chemistry, 2003, 278, 37664-37671.	3.4	164
9	The Antibacterial Cell Division Inhibitor PC190723 Is an FtsZ Polymer-stabilizing Agent That Induces Filament Assembly and Condensation. Journal of Biological Chemistry, 2010, 285, 14239-14246.	3.4	152
10	Structure of bacterial tubulin BtubA/B: Evidence for horizontal gene transfer. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9170-9175.	7.1	141
11	Reconstruction of protein form with X-ray solution scattering and a genetic algorithm. Journal of Molecular Biology, 2000, 299, 1289-1302.	4.2	136
12	Interaction of tubulin with bifunctional colchicine analogs: an equilibrium study. Biochemistry, 1984, 23, 1742-1752.	2.5	118
13	Fast Kinetics of Taxol Binding to Microtubules. Journal of Biological Chemistry, 2003, 278, 8407-8419.	3.4	118
14	Molecular Recognition of Taxol by Microtubules. Journal of Biological Chemistry, 2000, 275, 26265-26276.	3.4	116
15	Targeting the Assembly of Bacterial Cell Division Protein FtsZ with Small Molecules. ACS Chemical Biology, 2012, 7, 269-277.	3.4	107
16	Changes in Microtubule Protofilament Number Induced by Taxol Binding to an Easily Accessible Site. Journal of Biological Chemistry, 1998, 273, 33803-33810.	3.4	104
17	Energetics and Geometry of FtsZ Polymers: Nucleated Self-Assembly of Single Protofilaments. Biophysical Journal, 2008, 94, 1796-1806.	0.5	100
18	The Nucleotide Switch of Tubulin and Microtubule Assembly:Â A Polymerization-Driven Structural Changeâ€. Biochemistry, 2006, 45, 5933-5938.	2.5	94

#	ARTICLE	IF	CITATIONS
19	Stathmin and Interfacial Microtubule Inhibitors Recognize a Naturally Curved Conformation of Tubulin Dimers. Journal of Biological Chemistry, 2010, 285, 31672-31681.	3.4	91
20	Assembly of Archaeal Cell Division Protein FtsZ and a GTPase-inactive Mutant into Double-stranded Filaments. Journal of Biological Chemistry, 2003, 278, 33562-33570.	3.4	86
21	Role of the Colchicine Ring A and Its Methoxy Groups in the Binding to Tubulin and Microtubule Inhibitionâ€. Biochemistry, 1998, 37, 8356-8368.	2.5	81
22	Control of the Structural Stability of the Tubulin Dimer by One High Affinity Bound Magnesium Ion at Nucleotide N-site. Journal of Biological Chemistry, 1998, 273, 167-176.	3.4	79
23	[5] The measurement of cooperative protein self-assembly by turbidity and other techniques. Methods in Enzymology, 1986, 130, 47-59.	1.0	78
24	Synthesis and Antimitotic and Tubulin Interaction Profiles of Novel Pinacol Derivatives of Podophyllotoxins. Journal of Medicinal Chemistry, 2012, 55, 6724-6737.	6.4	77
25	Probing FtsZ and Tubulin with C8-Substituted GTP Analogs Reveals Differences in Their Nucleotide Binding Sites. Chemistry and Biology, 2008, 15, 189-199.	6.0	74
26	The Interaction of Baccatin III with the Taxol Binding Site of Microtubules Determined by a Homogeneous Assay with Fluorescent Taxoidâ€. Biochemistry, 2001, 40, 11975-11984.	2.5	73
27	Fluorescent taxoids as probes of the microtubule cytoskeleton. Cytoskeleton, 1998, 39, 73-90.	4.4	72
28	Solution Structure of GDP-tubulin Double Rings to 3 nm Resolution and Comparison with Microtubules. Journal of Molecular Biology, 1994, 238, 214-225.	4.2	69
29	Bacterial cell division proteins as antibiotic targets. Bioorganic Chemistry, 2014, 55, 27-38.	4.1	69
30	Optimization of Taxane Binding to Microtubules: Binding Affinity Dissection and Incremental Construction of a High-Affinity Analog of Paclitaxel. Chemistry and Biology, 2008, 15, 573-585.	6.0	68
31	The Interactions of Cell Division Protein FtsZ with Guanine Nucleotides. Journal of Biological Chemistry, 2007, 282, 37515-37528.	3.4	65
32	Protein domains and conformational changes in the activation of RepA, a DNA replication initiator. EMBO Journal, 1998, 17, 4511-4526.	7.8	63
33	NMR Determination of the Bioactive Conformation of Peloruside A Bound To Microtubules. Journal of the American Chemical Society, 2006, 128, 8757-8765.	13.7	62
34	The Bound Conformation of Microtubuleâ€Stabilizing Agents: NMR Insights into the Bioactive 3D Structure of Discodermolide and Dictyostatin. Chemistry - A European Journal, 2008, 14, 7557-7569.	3.3	62
35	Endowing Indole-Based Tubulin Inhibitors with an Anchor for Derivatization: Highly Potent 3-Substituted Indolephenstatins and Indoleisocombretastatins. Journal of Medicinal Chemistry, 2013, 56, 2813-2827.	6.4	62
36	Tubulin Secondary Structure Analysis, Limited Proteolysis Sites, and Homology to FtsZâ€. Biochemistry, 1996, 35, 14203-14215.	2.5	61

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37	Chemical synthesis and biological evaluation of novel epothilone B and trans-12,13-cyclopropyl epothilone B analogues. Tetrahedron, 2002, 58, 6413-6432.	1.9	57
38	New Interfacial Microtubule Inhibitors of Marine Origin, PM050489/PM060184, with Potent Antitumor Activity and a Distinct Mechanism. ACS Chemical Biology, 2013, 8, 2084-2094.	3.4	57
39	Polymerization of nucleotide-free, GDP- and GTP-bound cell division protein FtsZ: GDP makes the difference. FEBS Letters, 2004, 569, 43-48.	2.8	56
40	The ligand- and microtubule assembly-induced GTPase activity of purified calf brain tubulin. Archives of Biochemistry and Biophysics, 1981, 211, 151-157.	3.0	55
41	Tubulin homolog TubZ in a phage-encoded partition system. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7711-7716.	7.1	54
42	Activation of Cell Division Protein FtsZ. Journal of Biological Chemistry, 2001, 276, 17307-17315.	3.4	53
43	Roles of colchicine rings B and C in the binding process to tubulin. Biochemistry, 1989, 28, 5589-5599.	2.5	52
44	Synthetic Inhibitors of Bacterial Cell Division Targeting the GTP-Binding Site of FtsZ. ACS Chemical Biology, 2013, 8, 2072-2083.	3.4	52
45	Mechanism of colchicine binding to tubulin. Tolerance of substituents in ring C' of biphenyl analogs. Biochemistry, 1991, 30, 3777-3786.	2.5	50
46	New Fluorescent Water-Soluble Taxol Derivatives. Angewandte Chemie International Edition in English, 1996, 34, 2710-2712.	4.4	50
47	PM060184, a new tubulin binding agent with potent antitumor activity including P-glycoprotein over-expressing tumors. Biochemical Pharmacology, 2014, 88, 291-302.	4.4	49
48	Energetics of the Cooperative Assembly of Cell Division Protein FtsZ and the Nucleotide Hydrolysis Switch. Journal of Biological Chemistry, 2003, 278, 46146-46154.	3.4	48
49	Interaction of Epothilone Analogs with the Paclitaxel Binding Site. Chemistry and Biology, 2004, 11, 225-236.	6.0	47
50	Chrysophaentins are competitive inhibitors of FtsZ and inhibit Z-ring formation in live bacteria. Bioorganic and Medicinal Chemistry, 2013, 21, 5673-5678.	3.0	47
51	Insights into the Interaction of Discodermolide and Docetaxel with Tubulin. Mapping the Binding Sites of Microtubule-Stabilizing Agents by Using an Integrated NMR and Computational Approach. ACS Chemical Biology, 2011, 6, 789-799.	3.4	46
52	Insights into Nucleotide Recognition by Cell Division Protein FtsZ from a <i>mant</i>-GTP Competition Assay and Molecular Dynamics. Biochemistry, 2010, 49, 10458-10472.	2.5	45
53	Macromolecular Accessibility of Fluorescent Taxoids Bound at a Paclitaxel Binding Site in the Microtubule Surface. Journal of Biological Chemistry, 2005, 280, 3928-3937.	3.4	44
54	Mapping Flexibility and the Assembly Switch of Cell Division Protein FtsZ by Computational and Mutational Approaches. Journal of Biological Chemistry, 2010, 285, 22554-22565.	3.4	44

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55	Septin C-Terminal Domain Interactions: Implications for Filament Stability and Assembly. Cell Biochemistry and Biophysics, 2012, 62, 317-328.	1.8	40
56	Interaction of Epothilone Analogs with the Paclitaxel Binding SiteRelationship between Binding Affinity, Microtubule Stabilization, and Cytotoxicity. Chemistry and Biology, 2004, 11, 225-236.	6.0	39
57	Cytological Profile of Antibacterial FtsZ Inhibitors and Synthetic Peptide MciZ. Frontiers in Microbiology, 2016, 7, 1558.	3.5	39
58	Centrosome and spindle pole microtubules are main targets of a fluorescent taxoid inducing cell death. Cytoskeleton, 2001, 49, 1-15.	4.4	37
59	Reversible Unfolding of FtsZ Cell Division Proteins from Archaea and Bacteria. Journal of Biological Chemistry, 2002, 277, 43262-43270.	3.4	37
60	Bacterial Tubulin Distinct Loop Sequences and Primitive Assembly Properties Support Its Origin from a Eukaryotic Tubulin Ancestor. Journal of Biological Chemistry, 2011, 286, 19789-19803.	3.4	35
61	Self-Organization of FtsZ Polymers in Solution Reveals Spacer Role of the Disordered C-Terminal Tail. Biophysical Journal, 2017, 113, 1831-1844.	0.5	35
62	Helicity of Î±(404â€“451) and Î²(394â€“445) tubulin Câ€terminal recombinant peptides. Protein Science, 1999, 8, 788-799.	7.6	34
63	Membrane adenosine triphosphatase of Micrococcus lysodeikticus. Isolation of two forms of the enzyme complex and correlation between enzymatic stability, latency and activity.. Molecular and Cellular Biochemistry, 1976, 10, 67-76.	3.1	33
64	Roles of ring C oxygens in the binding of colchicine to tubulin. Biochemistry, 1991, 30, 3770-3777.	2.5	33
65	Possible binding site for paclitaxel at microtubule pores. FEBS Journal, 2009, 276, 2701-2712.	4.7	33
66	The structural assembly switch of cell division protein FtsZ probed with fluorescent allosteric inhibitors. Chemical Science, 2017, 8, 1525-1534.	7.4	33
67	Farnesyltransferase Inhibitors Reverse Taxane Resistance. Cancer Research, 2006, 66, 8838-8846.	0.9	32
68	Molecular Recognition of Epothilones by Microtubules and Tubulin Dimers Revealed by Biochemical and NMR Approaches. ACS Chemical Biology, 2014, 9, 1033-1043.	3.4	30
69	3-Hydroxyphenylpropionate and Phenylpropionate Are Synergistic Activators of the MhpR Transcriptional Regulator from Escherichia coli. Journal of Biological Chemistry, 2009, 284, 21218-21228.	3.4	28
70	Modulation of Microtubule Interprotofilament Interactions by Modified Taxanes. Biophysical Journal, 2011, 101, 2970-2980.	0.5	28
71	Interactions of Bacterial Cell Division Protein FtsZ with C8-Substituted Guanine Nucleotide Inhibitors. A Combined NMR, Biochemical and Molecular Modeling Perspective. Journal of the American Chemical Society, 2013, 135, 16418-16428.	13.7	28
72	Effect of 2â€²-OH acetylation on the bioactivity and conformation of 7- O -[N -(4â€²-fluoresceincarbonyl)- l -alanyl]taxol. A NMR-fluorescence microscopy study. Bioorganic and Medicinal Chemistry, 1998, 6, 1857-1863.	3.0	27

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73	A purple acidophilic di-ferric DNA ligase from <i>Ferroplasma</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8878-8883.	7.1	27
74	Glycoprotein nature of energy-transducing ATPases. FEBS Letters, 1978, 86, 1-5.	2.8	26
75	C-terminal cleavage of tubulin by subtilisin enhances ring formation. Archives of Biochemistry and Biophysics, 1990, 279, 328-337.	3.0	26
76	Stoichiometric and Substoichiometric Inhibition of Tubulin Self-Assembly by Colchicine Analoguesâ€. Biochemistry, 1996, 35, 3277-3285.	2.5	26
77	Effective GTP-Replacing FtsZ Inhibitors and Antibacterial Mechanism of Action. ACS Chemical Biology, 2015, 10, 834-843.	3.4	25
78	Different Kinetic Pathways of the Binding of Two Biphenyl Analogues of Colchicine to Tubulinâ€. Biochemistry, 1996, 35, 4387-4395.	2.5	24
79	Self assembly of human septin 2 into amyloid filaments. Biochimie, 2012, 94, 628-636.	2.6	22
80	Probing the Pore Drug Binding Site of Microtubules with Fluorescent Taxanes: Evidence of Two Binding Poses. Chemistry and Biology, 2010, 17, 243-253.	6.0	21
81	Mapping Surface Sequences of the Tubulin Dimer and Taxol-Induced Microtubules with Limited Proteolysisâ€. Biochemistry, 1996, 35, 14184-14202.	2.5	19
82	Thermal transitions in the structure of tubulin. European Biophysics Journal, 1991, 19, 295-300.	2.2	17
83	Fluorescent Taxoid Probes for Microtubule Research. Methods in Cell Biology, 2010, 95, 353-372.	1.1	17
84	Non-cytotoxic variants of the Kid protein that retain their auto-regulatory activity. Plasmid, 2003, 50, 120-130.	1.4	16
85	Synthetic developmental regulator MciZ targets FtsZ across Bacillus species and inhibits bacterial division. Molecular Microbiology, 2019, 111, 965-980.	2.5	16
86	Reversible inhibition of microtubuies and cell growth by the bicyclic colchicine analogue MTC. Cytoskeleton, 1987, 7, 178-186.	4.4	15
87	Interâ€conversion of catalytic abilities in a bifunctional carboxyl/feruloylâ€esterase from earthworm gut metagenome. Microbial Biotechnology, 2010, 3, 48-58.	4.2	15
88	Zampanolide Binding to Tubulin Indicates Cross-Talk of Taxane Site with Colchicine and Nucleotide Sites. Journal of Natural Products, 2018, 81, 494-505.	3.0	15
89	Nucleotideâ€induced folding of cell division protein FtsZ from <i>Staphylococcus aureus</i>. FEBS Journal, 2020, 287, 4048-4067.	4.7	15
90	Identification of ?III- and ?IV-tubulin isotypes in cold-adapted microtubules from Atlantic cod (Gadus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.4	13

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91	Folding, Stability and Polymerization Properties of FtsZ Chimeras with Inserted Tubulin Loops Involved in the Interaction with the Cytosolic Chaperonin CCT and in Microtubule Formation. Journal of Molecular Biology, 2005, 346, 319-330.	4.2	13
92	Structural features of the plasmid pMV158-encoded transcriptional repressor CopG, a protein sharing similarities with both helix-turn-helix and Î²-sheet DNA binding proteins. , 1998, 32, 248-261.		12
93	Substructure of F1-ATPase (BF1 factor) from Micrococcus lysodeikticus. Molecular and Cellular Biochemistry, 1980, 33, 3-12.	3.1	11
94	Targeting the FtsZ Allosteric Binding Site with a Novel Fluorescence Polarization Screen, Cytological and Structural Approaches for Antibacterial Discovery. Journal of Medicinal Chemistry, 2021, 64, 5730-5745.	6.4	11
95	FtsZ filament structures in different nucleotide states reveal the mechanism of assembly dynamics. PLoS Biology, 2022, 20, e3001497.	5.6	11
96	Beyond a Fluorescent Probe: Inhibition of Cell Division Protein FtsZ by <i>mant</i>-GTP Elucidated by NMR and Biochemical Approaches. ACS Chemical Biology, 2015, 10, 2382-2392.	3.4	9
97	Alterations of Rings B and C of Colchicine Are Cumulative in Overall Binding to Tubulin but Modify Each Kinetic Stepâ€. Biochemistry, 1996, 35, 15900-15906.	2.5	8
98	Urea-induced unfolding studies of free- and ligand-bound tetrameric ATP-dependent Saccharomyces cerevisiae phosphoenolpyruvate carboxykinase. International Journal of Biochemistry and Cell Biology, 2002, 34, 645-656.	2.8	6
99	Stability of Escherichia coli phosphoenolpyruvate carboxykinase against urea-induced unfolding and ligand effects. FEBS Journal, 1998, 255, 439-445.	0.2	5
100	Appendix: Hydrodynamic Analysis of Tubulin Dimer and Double Rings. Journal of Molecular Biology, 1994, 238, 223-225.	4.2	4
101	Structural Stability of the PsbQ Protein of Higher Plant Photosystem IIâ€. Biochemistry, 2004, 43, 14171-14179.	2.5	4
102	Purification and Assembly of Bacterial Tubulin BtubA/B and Constructs Bearing Eukaryotic Tubulin Sequences. Methods in Cell Biology, 2013, 115, 269-281.	1.1	4
103	How Protein Filaments Treadmill. Biophysical Journal, 2020, 119, 717-720.	0.5	3
104	FtsZ folding, self-association, activation and assembly. , 2004, , 133-153.		1