Karl-Heinz Altmann

List of Publications by Year
in descending order

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134 papers	6,103 citations	61977 43 h-index	79691 73 g-index
160 all docs	160 docs citations	160 times ranked	6538 citing authors

#	Article	IF	Citations
1	Molecular Mechanism of Action of Microtubule-Stabilizing Anticancer Agents. Science, 2013, 339, 587-590.	12.6	436
2	Structural basis of small-molecule inhibition of human multidrug transporter ABCG2. Nature Structural and Molecular Biology, 2018, 25, 333-340.	8.2	258
3	Anticancer drugs from natureâ€"natural products as a unique source of new microtubule-stabilizing agents. Natural Product Reports, 2007, 24, 327-357.	10.3	230
4	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
5	New Anilinophthalazines as Potent and Orally Well Absorbed Inhibitors of the VEGF Receptor Tyrosine Kinases Useful as Antagonists of Tumor-Driven Angiogenesis. Journal of Medicinal Chemistry, 2000, 43, 2310-2323.	6.4	224
6	Chemical Synthesis and Biological Evaluation ofcis- andtrans-12,13-Cyclopropyl and 12,13-Cyclobutyl Epothilones and Related Pyridine Side Chain Analogues. Journal of the American Chemical Society, 2001, 123, 9313-9323.	13.7	205
7	Towards a new tuberculosis drug: pyridomycin â€“ nature's isoniazid. EMBO Molecular Medicine, 2012, 4, 1032-1042.	6.9	175
8	GABAA receptors as in vivo substrate for the anxiolytic action of valerenic acid, a major constituent of valerian root extracts. Neuropharmacology, 2009, 56, 174-181.	4.1	173
9	Mycobacterial Toxin Induces Analgesia in Buruli Ulcer by Targeting the Angiotensin Pathways. Cell, 2014, 157, 1565-1576.	28.9	160
10	Structural Basis of Microtubule Stabilization by Laulimalide and Pelorusideâ€...A. Angewandte Chemie - International Edition, 2014, 53, 1621-1625.	13.8	154
11	Microtubule-stabilizing agents: a growing class of important anticancer drugs. Current Opinion in Chemical Biology, 2001, 5, 424-431.	6.1	134
12	Epothilones and related structures â€“ a new class of microtubule inhibitors with potent in vivo antitumor activity. Biochimica Et Biophysica Acta: Reviews on Cancer, 2000, 1470, M79-M91.	7.4	120
13	The Chemistry and Biology of Epothilonesâ€"The Wheel Keeps Turning. ChemMedChem, 2007, 2, 396-423.	3.2	119
14	The High-Resolution Solution Structure of Epothilone A Bound to Tubulin: An Understanding of the Structureâ€"Activity Relationships for a Powerful Class of Antitumor Agents. Angewandte Chemie - International Edition, 2003, 42, 2511-2515.	13.8	103
15	Recent Developments in the Chemical Biology of Epothilones. Current Pharmaceutical Design, 2005, 11, 1595-1613.	1.9	99
16	Epothilone B and its Analogs - A New Family of Anticancer Agents. Mini-Reviews in Medicinal Chemistry, 2003, 3, 149-158.	2.4	96
17	The merger of natural product synthesis and medicinal chemistry: on the chemistry and chemical biology of epothilones. Organic and Biomolecular Chemistry, 2004, 2, 2137.	2.8	95
18	Epothilones as Lead Structures for the Synthesis-Based Discovery of New Chemotypes for Microtubule Stabilization. Accounts of Chemical Research, 2008, 41, 21-31.	15.6	89

#	Article	IF	Citations
19	RNA polymerase motions during promoter melting. Science, 2017, 356, 863-866.	12.6	85
20	Zampanolide, a Potent New Microtubule-Stabilizing Agent, Covalently Reacts with the Taxane Luminal Site in Tubulin Î±,Î²-Heterodimers and Microtubules. Chemistry and Biology, 2012, 19, 686-698.	6.0	81
21	The Total Synthesis and Biological Assessment of trans-Epothilone A. Helvetica Chimica Acta, 2002, 85, 4086-4110.	1.6	76
22	Drugs from the Oceans: Marine Natural Products as Leads for Drug Discovery. Chimia, 2017, 71, 646.	0.6	74
23	The LAT1 inhibitor JPH203 reduces growth of thyroid carcinoma in a fully immunocompetent mouse model. Journal of Experimental and Clinical Cancer Research, 2018, 37, 234.	8.6	72
24	Chemical probes to potently and selectively inhibit endocannabinoid cellular reuptake. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5006-E5015.	7.1	72
25	Total Synthesis of the Tubulin Inhibitor WFâ€1360F Based on Macrocycle Formation through Ringâ€Closing Alkyne Metathesis. Angewandte Chemie - International Edition, 2013, 52, 5866-5870.	13.8	67
26	Design, Synthesis, and Biological Properties of Highly Potent Epothilone B Analogues. Angewandte Chemie - International Edition, 2003, 42, 3515-3520.	13.8	66
27	Synthesis and biological evaluation of highly potent analogues of epothilones B and D. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 2765-2768.	2.2	64
28	Pyridomycin bridges the NADH- and substrate-binding pockets of the enoyl reductase InhA. Nature Chemical Biology, 2014, 10, 96-98.	8.0	63
29	The Macrolide Toxin Mycolactone Promotes Bim-Dependent Apoptosis in Buruli Ulcer through Inhibition of mTOR. ACS Chemical Biology, 2017, 12, 1297-1307.	3.4	62
30	Resorcylic acid lactones as new lead structures for kinase inhibition. Comptes Rendus Chimie, 2008, 11, 1318-1335.	0.5	60
31	Synthesis of (â˜)-Dactylolide and 13-Desmethylene-(â˜)-dactylolide and Their Effects on Tubulin. Organic Letters, 2010, 12, 2302-2305.	4.6	60
32	Correlating Structure and Stability of DNA Duplexes with Incorporated 2â€˜-O-Modified RNA Analoguesâ€,â€¡. Biochemistry, 1998, 37, 10626-10634.	2.5	57
33	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
34	The Laulimalide Family: Total Synthesis and Biological Evaluation of Neolaulimalide, Isolaulimalide, Laulimalide and a Nonnatural Analogue. Chemistry - A European Journal, 2009, 15, 5979-5997.	3.3	57
35	Structure-Activity Relationship Studies on the Macrolide Exotoxin Mycolactone of Mycobacterium ulcerans. PLoS Neglected Tropical Diseases, 2013, 7, e2143.	3.0	53
36	Stereoselective Synthesis of a Monocyclic Peloruside A Analogue. Organic Letters, 2010, 12, 1120-1123.	4.6	52

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37	Total Synthesis of the Tiacumicinâ€…B (Lipiarmycin A3/Fidaxomicin) Aglycone. Angewandte Chemie - International Edition, 2015, 54, 1937-1940.	13.8	52
38	Arylvinylpiperazine Amides, a New Class of Potent Inhibitors Targeting QcrB of Mycobacterium tuberculosis. MBio, 2018, 9, .	4.1	52
39	Conformational Preferences of Natural and C3-Modified Epothilones in Aqueous Solution. Journal of Medicinal Chemistry, 2008, 51, 1469-1473.	6.4	49
40	Total Synthesis of (â^')â€Zampanolide and Structureâ€“Activity Relationship Studies on (â^')â€Dactylolide Derivatives. Chemistry - A European Journal, 2012, 18, 16868-16883.	3.3	47
41	Patupilone (epothilone B, EPO906) inhibits growth and metastasis of experimental prostate tumors in vivo. Prostate, 2005, 65, 231-240.	2.3	46
42	A Ringâ€Closing Metathesis (RCM)â€Based Approach to Mycolactonesâ€…A/B. Chemistry - A European Journal, 2011, 17, 13017-13031.	3.3	45
43	Scaffolds for Microtubule Inhibition through Extensive Modification of the Epothilone Template. Angewandte Chemie - International Edition, 2005, 44, 7469-7473.	13.8	44
44	Taxanes convert regions of perturbed microtubule growth into rescue sites. Nature Materials, 2020, 19, 355-365.	27.5	44
45	A fluorescence anisotropy assay to discover and characterize ligands targeting the maytansineÂsite of tubulin. Nature Communications, 2018, 9, 2106.	12.8	41
46	Mechanism of substrate transport and inhibition of the human LAT1-4F2hc amino acid transporter. Cell Discovery, 2021, 7, 16.	6.7	40
47	Total Synthesis of the Bacterial RNA Polymerase Inhibitor Ripostatinâ€…B. Angewandte Chemie - International Edition, 2012, 51, 3405-3409.	13.8	39
48	Total Synthesis of the Marine Diterpenoid Blumiolideâ€…C. Angewandte Chemie - International Edition, 2008, 47, 10081-10085.	13.8	38
49	Antibody-Mediated Neutralization of the Exotoxin Mycolactone, the Main Virulence Factor Produced by Mycobacterium ulcerans. PLoS Neglected Tropical Diseases, 2016, 10, e0004808.	3.0	38
50	Epothilones â€“ A fascinating family of microtubule stabilizing antitumor agents. Comptes Rendus Chimie, 2008, 11, 1336-1368.	0.5	35
51	The chemistry and biology of mycolactones. Beilstein Journal of Organic Chemistry, 2017, 13, 1596-1660.	2.2	35
52	Diversity through semisynthesis: the chemistry and biological activity of semisynthetic epothilone derivatives. Molecular Diversity, 2011, 15, 383-399.	3.9	34
53	Total Synthesis and Biological Assessment of Benzimidazole-Based Analogues of Epothilone A: Ambivalent Effects on Cancer Cell Growth Inhibition. ChemBioChem, 2006, 7, 54-57.	2.6	31
54	Deorphaning the Macromolecular Targets of the Natural Anticancer Compound Doliculide. Angewandte Chemie - International Edition, 2016, 55, 12408-12411.	13.8	31

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55	Recent developments in natural product-based drug discovery for tuberculosis. Drug Discovery Today, 2017, 22, 585-591.	6.4	31
56	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
57	Structure-Activity Relationships in Side-Chain-Modified Epothilone Analoguesâ€"How Important is the Position of the Nitrogen Atom?. ChemMedChem, 2006, 1, 37-40.	3.2	29
58	Total Synthesis of Hypermodified Epothilone Analogs with Potent in Vitro Antitumor Activity. Organic Letters, 2008, 10, 1183-1186.	4.6	29
59	Design and Synthesis of 12-Aza-Epothilones (Azathilones)â€"â€œNon-Naturalâ€•Natural Products with Potent Anticancer Activity. Angewandte Chemie - International Edition, 2006, 45, 5880-5885.	13.8	28
60	Epothilone Analogues with Benzimidazole and Quinoline Side Chains: Chemical Synthesis, Antiproliferative Activity, and Interactions with Tubulin. Chemistry - A European Journal, 2009, 15, 10144-10157.	3.3	27
61	Total Synthesis and Biological Assessment of Mandelalideâ€…A. Chemistry - A European Journal, 2016, 22, 1292-1300.	3.3	27
62	Synthesis and Biological Evaluation of Aza-Epothilones. ChemBioChem, 2000, 1, 67-70.	2.6	26
63	Evaluation of Novel Epothilone Analogues by means of a Common Pharmacophore and a QSAR Pseudoreceptor Model for Taxanes and Epothilones. ChemMedChem, 2010, 5, 35-40.	3.2	26
64	Title is missing!. Angewandte Chemie, 2003, 115, 2615-2619.	2.0	24
65	Kinase Inhibition by Deoxy Analogues of the Resorcylic Lactone L-783277. ACS Medicinal Chemistry Letters, 2011, 2, 22-27.	2.8	24
66	Synthesis and Antimycobacterial Activity of 2,1â€²-Dihydropyridomycins. ACS Medicinal Chemistry Letters, 2013, 4, 264-268.	2.8	24
67	Rational Design of Membraneâ€Poreâ€Forming Peptides. Small, 2017, 13, 1701316.	10.0	24
68	Zampanolide, a Microtubule-Stabilizing Agent, Is Active in Resistant Cancer Cells and Inhibits Cell Migration. International Journal of Molecular Sciences, 2017, 18, 971.	4.1	24
69	Crystal Structure of the Cyclostreptin-Tubulin Adduct: Implications for Tubulin Activation by Taxane-Site Ligands. International Journal of Molecular Sciences, 2019, 20, 1392.	4.1	24
70	The Solution Conformation of a Carbocyclic Analog of the Dickerson-Drew Dodecamer: Comparison with its own X-ray Structure and that of the NMR Structure of the Native Counterpart. Journal of Biomolecular Structure and Dynamics, 1998, 16, 547-568.	3.5	23
71	Epothilones and their analogues - a new class of promising microtubule inhibitors. Expert Opinion on Therapeutic Patents, 2001, 11, 951-968.	5.0	23
72	Synthesis and SAR of C12â€“C13-oxazoline derivatives of epothilone A. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 3760-3763.	2.2	22

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73	Total Synthesis of Ripostatin B and Structureâ€“Activity Relationship Studies on Ripostatin Analogs. Journal of Organic Chemistry, 2018, 83, 7150-7172.	3.2	22
74	Synthesis and Biological Evaluation of Furano-Epothilone C. Synlett, 2004, 2004, 1375-1378.	1.8	21
75	Natural Product-Based Drug Discovery â€“ Epothilones as Lead Structures for the Discovery of New Anticancer Agents. Chimia, 2004, 58, 686-690.	0.6	20
76	Stereoselective Synthesis of 12,13-Cyclopropyl-Epothilone B and Side-Chain-Modified Variants. Organic Letters, 2011, 13, 1436-1439.	4.6	18
77	Xenicane Natural Products: Biological Activity and Total Synthesis. Current Pharmaceutical Design, 2015, 21, 5467-5488.	1.9	16
78	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
79	The Binding Mode of Side Chainâ€•and C3â€Modified Epothilones to Tubulin. ChemMedChem, 2010, 5, 911-920.	3.2	14
80	Synthesis and Biological Activity of 7,8,9â€Trideoxyâ€•and 7R DesTHPâ€Peloruside A. Chemistry - A European Journal, 2013, 19, 13105-13111.	3.3	14
81	Pharmacological characterization of actin-binding (â^')-Doliculide. Bioorganic and Medicinal Chemistry, 2014, 22, 5117-5122.	3.0	14
82	Design, Synthesis, and Biological Properties of Highly Potent Epothilone B Analogues. Angewandte Chemie, 2003, 115, 3639-3644.	2.0	13
83	Synthesis and biological evaluation of epothilone A dimeric compounds. Bioorganic and Medicinal Chemistry, 2009, 17, 7435-7440.	3.0	13
84	The Impact of Cyclopropane Configuration on the Biological Activity of Cyclopropylâ€Epothilones. ChemMedChem, 2014, 9, 2227-2232.	3.2	13
85	Differential Effects of Natural Product Microtubule Stabilizers on Microtubule Assembly: Single Agent and Combination Studies with Taxol, Epothilone B, and Discodermolide. ChemBioChem, 2009, 10, 166-175.	2.6	12
86	Highly Potent Modulation of GABA_A Receptors by Valerenic Acid Derivatives. ChemMedChem, 2010, 5, 678-681.	3.2	12
87	High affinity and covalent-binding microtubule stabilizing agents show activity in chemotherapy-resistant acute myeloid leukemia cells. Cancer Letters, 2015, 368, 97-104.	7.2	12
88	Peptideâ€“Membrane Interaction between Targeting and Lysis. ACS Chemical Biology, 2017, 12, 2254-2259.	3.4	12
89	Small molecule inhibitors provide insights into the relevance of LAT1 and LAT2 in maternoâ€fœtal amino acid transport. Journal of Cellular and Molecular Medicine, 2020, 24, 12681-12693.	3.6	12
90	An RCMâ€Based Total Synthesis of the Antibiotic Disciformycinâ€…B. Angewandte Chemie - International Edition, 2020, 59, 17393-17397.	13.8	12

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91	Total Synthesis of 26-Fluoro-epothilone B. Synlett, 2004, 2004, 693-697.	1.8	11
92	Making Epothilones Fluoresce: Design, Synthesis, and Biological Characterization of a Fluorescent N12â€Azaâ€Epothilone (Azathilone). ChemBioChem, 2009, 10, 2513-2521.	2.6	11
93	Treasures from the Sea: Discovery and Total Synthesis of Ammosamides. Angewandte Chemie - International Edition, 2010, 49, 6936-6938.	13.8	11
94	Directed Hydrogenations and an Irelandâ€“Claisen Rearrangement Linked to Evansâ€“Tishchenko Chemistry: The Highly Efficient Total Synthesis of the Marine Cyclodepsipeptide Doliculide. Chemistry - A European Journal, 2015, 21, 8403-8407.	3.3	11
95	Studies toward the Total Synthesis of the Marine Macrolide SalarinÂC. Organic Letters, 2018, 20, 7679-7683.	4.6	11
96	Configurationally Stabilized Analogs of M. ulcerans Exotoxins Mycolactones A and B Reveal the Importance of Side Chain Geometry for Mycolactone Virulence. Organic Letters, 2019, 21, 5853-5857.	4.6	11
97	Synthesis and Structureâ€“Activity Relationship Studies of C2-Modified Analogs of the Antimycobacterial Natural Product Pyridomycin. Journal of Medicinal Chemistry, 2020, 63, 1105-1131.	6.4	11
98	Synthesis of 12-aza analogs of epothilones and (E)-9,10-dehydroepothilones. Tetrahedron, 2008, 64, 7920-7928.	1.9	10
99	Primary resistance mechanism of the canine distemper virus fusion protein against a small-molecule membrane fusion inhibitor. Virus Research, 2019, 259, 28-37.	2.2	10
100	Actin-binding doliculide causes premature senescence in p53 wild type cells. Bioorganic and Medicinal Chemistry, 2016, 24, 123-129.	3.0	9
101	Development of an ELISA for the quantification of mycolactone, the cytotoxic macrolide toxin of Mycobacterium ulcerans. PLoS Neglected Tropical Diseases, 2020, 14, e0008357.	3.0	9
102	Synthetic and Semisynthetic Analogs of Epothilones: Chemistry and Biological Activity. ACS Symposium Series, 2001, , 112-130.	0.5	8
103	Total Synthesis and Biological Evaluation of a C(10)/C(12)-Phenylene-Bridged Analog of Epothilone?D. Chemistry and Biodiversity, 2004, 1, 1771-1784.	2.1	8
104	Total Synthesis of the Myxobacterial Macrolide Ripostatin B. Chimia, 2013, 67, 227.	0.6	8
105	Unraveling a molecular target of macrolides. Nature Chemical Biology, 2008, 4, 388-389.	8.0	7
106	Synthesis of Morpholineâ€Based Analogues of (â^')â€Zampanolide and Their Biological Activity. Chemistry - A European Journal, 2021, 27, 5936-5943.	3.3	7
107	Total Synthesis and Biological Assessment of Cyclopropane-Based Epothilone Analogues - Modulation of Drug Efflux through Polarity Adjustments. Synlett, 2006, 2006, 1384-1388.	1.8	6
108	Natural Products as Leads for Anticancer Drug Discovery: Discovery of New Chemotypes of Microtubule Stabilizers through Reengineering of the Epothilone Scaffold. Chimia, 2010, 64, 8.	0.6	6

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109	Synthesis, Biological Profiling and Determination of the Tubulin-Bound Conformation of 12-Aza-Epothilones (Azathilones). Molecules, 2016, 21, 1010.	3.8	6
110	Total Synthesis of the Endocannabinoid Uptake Inhibitor Guineensine and SAR Studies. ChemMedChem, 2019, 14, 1590-1596.	3.2	6
111	Ring-Closing Metathesis Approaches towards the Total Synthesis of Rhizoxins. Molecules, 2020, 25, 4527.	3.8	6
112	Synthesis and Biological Evaluation of Endocannabinoid Uptake Inhibitors Derived from WOBE437. ChemMedChem, 2021, 16, 145-154.	3.2	6
113	Epothilones as lead structures for new anticancer drugs â€" pharmacology, fermentation, and structure-activity-relationships. , 2008, 66, 273-334.		5
114	The cytoskeleton and its interactions with small molecules. Bioorganic and Medicinal Chemistry, 2014, 22, 5038-5039.	3.0	5
115	Tumor Targeting with Small Molecule-Drug Conjugates (SMDCs) â€" Can They be Better than ADCs?. Chimia, 2018, 72, 154.	0.6	5
116	A Method for the Stereoselective Construction of the Hemiaminal Center in Zampanolides. Organic Letters, 2020, 22, 8345-8348.	4.6	5
117	Studies toward the Synthesis of an Oxazole-Based Analog of (â^')-Zampanolide. Organic Letters, 2021, 23, 2238-2242.	4.6	5
118	Synthesis and Biological Activity of 12-Aza-Epothilones (Azathilones) â€" Non-Natural Natural Products with Potent Antiproliferative Activity. Chimia, 2007, 61, 143-146.	0.6	4
119	Synthetic Studies on Mycolactones: Synthesis of the Mycolactone Core ÂStructure through Ring-Closing Olefin Metathesis. Synlett, 2007, 2007, 0415-0418.	1.8	4
120	Chemical Tools from Biology-Oriented Synthesis. Chemistry and Biology, 2007, 14, 347-349.	6.0	4
121	Preclinical Pharmacology and Structure-Activity Studies of Epothilones. Progress in the Chemistry of Organic Natural Products, 2009, 90, 157-220.	1.1	4
122	Methods for Studying Microtubule Binding Site Interactions. Methods in Cell Biology, 2013, 115, 303-325.	1.1	4
123	Synthesis, Microtubule-Binding Affinity, and Antiproliferative Activity of New Epothilone Analogs and of an EGFR-Targeted Epothilone-Peptide Conjugate. International Journal of Molecular Sciences, 2019, 20, 1113.	4.1	4
124	Morphing of Amphipathic Helices to Explore the Activity and Selectivity of Membranolytic Antimicrobial Peptides. Biochemistry, 2020, 59, 3772-3781.	2.5	4
125	Semisynthetic Derivatives of Epothilones. Progress in the Chemistry of Organic Natural Products, 2009, 90, 135-156.	1.1	3
126	Deorphaning the Macromolecular Targets of the Natural Anticancer Compound Doliculide. Angewandte Chemie, 2016, 128, 12596-12599.	2.0	3

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127	Synthesis, Profiling, and Bioactive Conformation of trans â€Cyclopropyl Epothilones. Helvetica Chimica Acta, 2019, 102, e1900078.	1.6	3
128	An Antigen Capture Assay for the Detection of Mycolactone, the Polyketide Toxin of Mycobacterium ulcerans. Journal of Immunology, 2021, 206, 2753-2762.	0.8	3
129	Die Totalsynthese des Antibiotikums Disciformycinâ€...B durch Ringschlussmetathese. Angewandte Chemie, 2020, 132, 17546-17550.	2.0	2
130	Ammonia uptake by transmembrane pH gradient poly(isoprene)-block-poly(ethylene glycol) polymersomes. Soft Matter, 2020, 16, 2725-2735.	2.7	2
131	Clinical Studies with Epothilones. Progress in the Chemistry of Organic Natural Products, 2009, 90, 221-237.	1.1	1
132	Synthesis and Biological Activity of New Functionalized Epothilones for Prodrug Design and Tumor Targeting. Chimia, 2010, 64, 136-139.	0.6	1
133	On the Importance of the Thiazole Nitrogen in Epothilones: Semisynthesis and Microtubule-Binding Affinity of Deaza-Epothilone C. Chemistry, 2020, 2, 499-509.	2.2	0
134	On the Chemistry and Biology of the Marine Macrolides Zampanolide and Dactylolide. , 2017, , 555-599.		0