Peter C Tyler

List of Publications by Year
in descending order

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112 papers	4,620 citations	66343 42 h-index	114465 63 g-index
115 all docs	115 docs citations	115 times ranked	3068 citing authors

#	Article	IF	Citations
1	One-Third-the-Sites Transition-State Inhibitors for Purine Nucleoside Phosphorylaseâ€. Biochemistry, 1998, 37, 8615-8621.	2.5	254
2	The 2.0 A structure of human hypoxanthine-guanine phosphoribosyltransferase in complex with a transition-state analog inhibitor. Nature Structural Biology, 1999, 6, 588-593.	9.7	148
3	Femtomolar Transition State Analogue Inhibitors of 5â€²-Methylthioadenosine/S-Adenosylhomocysteine Nucleosidase from Escherichia coli. Journal of Biological Chemistry, 2005, 280, 18265-18273.	3.4	122
4	Achieving the Ultimate Physiological Goal in Transition State Analogue Inhibitors for Purine Nucleoside Phosphorylase. Journal of Biological Chemistry, 2003, 278, 31465-31468.	3.4	113
5	Targeting a Novel Plasmodium falciparum Purine Recycling Pathway with Specific Immucillins. Journal of Biological Chemistry, 2005, 280, 9547-9554.	3.4	105
6	Plasmodium falciparum Purine Nucleoside Phosphorylase. Journal of Biological Chemistry, 2004, 279, 18103-18106.	3.4	104
7	Purine-less Death in Plasmodium falciparumInduced by Immucillin-H, a Transition State Analogue of Purine Nucleoside Phosphorylase. Journal of Biological Chemistry, 2002, 277, 3226-3231.	3.4	101
8	Synthesis of Second-Generation Transition State Analogues of Human Purine Nucleoside Phosphorylase. Journal of Medicinal Chemistry, 2003, 46, 5271-5276.	6.4	100
9	Transition-state analogs as inhibitors of human and malarial hypoxanthine-guanine phosphoribosyltransferases. Nature Structural Biology, 1999, 6, 582-587.	9.7	92
10	Addition of Lithiated 9-Deazapurine Derivatives to a Carbohydrate Cyclic Imine:Â Convergent Synthesis of the Aza-C-nucleoside Immucillins. Journal of Organic Chemistry, 2001, 66, 5723-5730.	3.2	90
11	Transition State Analogue Inhibitors of Purine Nucleoside Phosphorylase from Plasmodium falciparum. Journal of Biological Chemistry, 2002, 277, 3219-3225.	3.4	89
12	Prostaglandin E2-bisphosphonate conjugates: potential agents for treatment of osteoporosis. Bioorganic and Medicinal Chemistry, 1999, 7, 901-919.	3.0	86
13	Synthesis of Transition State Analogue Inhibitors for Purine Nucleoside Phosphorylase and N-Riboside Hydrolases. Tetrahedron, 2000, 56, 3053-3062.	1.9	86
14	Exploring Structureâ^'Activity Relationships of Transition State Analogues of Human Purine Nucleoside Phosphorylase. Journal of Medicinal Chemistry, 2003, 46, 3412-3423.	6.4	80
15	Synthesis of a Targeted Library of Heparan Sulfate Hexaâ€•to Dodecasaccharides as Inhibitors of Î²â€Secretase: Potential Therapeutics for Alzheimerâ€™s Disease. Chemistry - A European Journal, 2013, 19, 6817-6823.	3.3	80
16	Iminoribitol Transition State Analogue Inhibitors of Protozoan Nucleoside Hydrolasesâ€. Biochemistry, 1999, 38, 13147-13154.	2.5	78
17	Azetidine Based Transition State Analogue Inhibitors of N-Ribosyl Hydrolases and Phosphorylases. Journal of Medicinal Chemistry, 2008, 51, 948-956.	6.4	78
18	Synthesis of transition state inhibitors for N-riboside hydrolases and transferases. Tetrahedron, 1997, 53, 2915-2930.	1.9	77

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19	Synthesis of a Transition State Analogue Inhibitor of Purine Nucleoside Phosphorylase via the Mannich Reaction. Organic Letters, 2003, 5, 3639-3640.	4.6	77
20	Syntheses and bio-activities of the l-enantiomers of two potent transition state analogue inhibitors of purine nucleoside phosphorylases. Organic and Biomolecular Chemistry, 2006, 4, 1131.	2.8	75
21	Structural Rationale for the Affinity of Pico- and Femtomolar Transition State Analogues of Escherichia coli 5â€²-Methylthioadenosine/S-Adenosylhomocysteine Nucleosidase. Journal of Biological Chemistry, 2005, 280, 18274-18282.	3.4	71
22	Four generations of transition-state analogues for human purine nucleoside phosphorylase. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4805-4812.	7.1	71
23	Third-Generation Immucillins: Syntheses and Bioactivities of Acyclic Immucillin Inhibitors of Human Purine Nucleoside Phosphorylase. Journal of Medicinal Chemistry, 2009, 52, 1126-1143.	6.4	68
24	The chemistry of castanospermine, part I: synthetic modifications at C-6. Tetrahedron, 1994, 50, 2131-2160.	1.9	66
25	Picomolar Transition State Analogue Inhibitors of Human 5â€˜-Methylthioadenosine Phosphorylase and X-ray Structure with MT-Immucillin-Aâ€. Biochemistry, 2004, 43, 9-18.	2.5	65
26	Improved Syntheses of 3H,5H-Pyrrolo[3,2-d]pyrimidines. Journal of Organic Chemistry, 1999, 64, 8411-8412.	3.2	64
27	Picomolar Inhibitors as Transition-State Probes of 5â€²-Methylthioadenosine Nucleosidases. ACS Chemical Biology, 2007, 2, 725-734.	3.4	62
28	Atomic Dissection of the Hydrogen Bond Network for Transition-State Analogue Binding to Purine Nucleoside Phosphorylase. Biochemistry, 2002, 41, 14489-14498.	2.5	61
29	Structure and Inhibition of a Quorum Sensing Target fromStreptococcus pneumoniaeâ€. Biochemistry, 2006, 45, 12929-12941.	2.5	61
30	Synthesis of 5â€˜-Methylthio Coformycins:Â Specific Inhibitors for Malarial Adenosine Deaminase. Journal of the American Chemical Society, 2007, 129, 6872-6879.	13.7	60
31	Mechanistic Diagnoses of N-Ribohydrolases and Purine Nucleoside Phosphorylase. Journal of the American Chemical Society, 1996, 118, 2111-2112.	13.7	59
32	Acyclic Immucillin Phosphonates: Second-Generation Inhibitors of Plasmodium falciparum Hypoxanthine- Guanine-Xanthine Phosphoribosyltransferase. Chemistry and Biology, 2012, 19, 721-730.	6.0	59
33	Second Generation Transition State Analogue Inhibitors of Human 5â€˜-Methylthioadenosine Phosphorylase. Journal of Medicinal Chemistry, 2005, 48, 4679-4689.	6.4	58
34	Purine Nucleoside Phosphorylase fromMycobacterium tuberculosis. Analysis of Inhibition by a Transition-State Analogue and Dissection by Partsâ€. Biochemistry, 2001, 40, 8196-8203.	2.5	57
35	8-Aza-immucillins as Transition-State Analogue Inhibitors of Purine Nucleoside Phosphorylase and Nucleoside Hydrolases. Journal of Medicinal Chemistry, 2003, 46, 155-160.	6.4	54
36	Targeting the Polyamine Pathway with Transition-State Analogue Inhibitors of 5â€˜-Methylthioadenosine Phosphorylase. Journal of Medicinal Chemistry, 2004, 47, 3275-3281.	6.4	53

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37	Energetic Mapping of Transition State Analogue Interactions with Human and Plasmodium falciparum Purine Nucleoside Phosphorylases. Journal of Biological Chemistry, 2005, 280, 30320-30328.	3.4	51
38	A Picomolar Transition State Analogue Inhibitor of MTAN as a Specific Antibiotic for Helicobacter pylori. Biochemistry, 2012, 51, 6892-6894.	2.5	51
39	Imino-Sugar-Based Nucleosides. Current Topics in Medicinal Chemistry, 2003, 3, 525-540.	2.1	51
40	Total synthesis of (.+-.)-thielocin A1.beta.: a novel inhibitor of phospholipase A2. Journal of the American Chemical Society, 1994, 116, 759-760.	13.7	50
41	Immucillins in Infectious Diseases. ACS Infectious Diseases, 2018, 4, 107-117.	3.8	49
42	Inhibitors of ADP-Ribosylating Bacterial Toxins Based on Oxacarbenium Ion Character at Their Transition States. Journal of the American Chemical Society, 2004, 126, 5690-5698.	13.7	45
43	The chemistry of castanospermine, part V: synthetic modifications at C-1 and C-7. Tetrahedron, 1997, 53, 245-268.	1.9	41
44	New Antibiotic Candidates against Helicobacter pylori. Journal of the American Chemical Society, 2015, 137, 14275-14280.	13.7	41
45	Transition state analogue inhibitors of protozoan nucleoside hydrolases. Bioorganic and Medicinal Chemistry, 1999, 7, 2599-2606.	3.0	40
46	Acyclic Ribooxacarbenium Ion Mimics as Transition State Analogues of Human and Malarial Purine Nucleoside Phosphorylases. Journal of the American Chemical Society, 2007, 129, 6984-6985.	13.7	40
47	Total synthesis and stereochemical identity of the C18H32O5 degradation product from boromycin. Journal of the American Chemical Society, 1981, 103, 6243-6246.	13.7	39
48	Inhibition and Structure ofTrichomonas vaginalisPurine Nucleoside Phosphorylase with Picomolar Transition State Analoguesâ€. Biochemistry, 2007, 46, 659-668.	2.5	39
49	Design and Synthesis of Potent â€œSulfur-Freeâ€•Transition State Analogue Inhibitors of 5â€²-Methylthioadenosine Nucleosidase and 5â€²-Methylthioadenosine Phosphorylase. Journal of Medicinal Chemistry, 2010, 53, 6730-6746.	6.4	39
50	Shotgun ion mobility mass spectrometry sequencing of heparan sulfate saccharides. Nature Communications, 2020, 11, 1481.	12.8	39
51	Ricin A-Chain Inhibitors Resembling the Oxacarbenium Ion Transition Stateâ€. Biochemistry, 2001, 40, 6845-6851.	2.5	38
52	Imino-C-nucleoside Synthesis:Â Heteroaryl Lithium Carbanion Additions to a Carbohydrate Cyclic Imine and Nitrone. Journal of Organic Chemistry, 2004, 69, 2217-2220.	3.2	37
53	Observations on the possible application of glycosyl disulphides, sulphenic esters, and sulphones in the synthesis of glycosides. Carbohydrate Research, 1977, 58, 397-404.	2.3	36
54	Transition State Analogue Discrimination by Related Purine Nucleoside Phosphorylases. Journal of the American Chemical Society, 2006, 128, 7126-7127.	13.7	36

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55	Acyclic phosph(on)ate inhibitors of Plasmodium falciparum hypoxanthine-guanine-xanthine phosphoribosyltransferase. Bioorganic and Medicinal Chemistry, 2013, 21, 5629-5646.	3.0	34
56	Singleâ€Entity Heparan Sulfate Glycomimetic Clusters for Therapeutic Applications. Angewandte Chemie - International Edition, 2015, 54, 2718-2723.	13.8	34
57	New syntheses of 1d- and 1l-1,2-anhydro-myo-inositol and assessment of their glycosidase inhibitory activities. Carbohydrate Research, 2000, 329, 301-308.	2.3	32
58	Mechanism-based inactivator of isocitrate lyases 1 and 2 from Mycobacterium tuberculosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7617-7622.	7.1	32
59	Reaction of lithium dimethylcuprate with conformationally biased Î²-acyloxy enol esters - regio and stereocontrolled access to functionalized six-carbon chiral synthons. Tetrahedron Letters, 1981, 22, 4583-4586.	1.4	31
60	Synthesis of 1,5-dideoxy-1,5-imino-d-galactitol from l-sorbose. Tetrahedron Letters, 1993, 34, 3609-3612.	1.4	28
61	The Chemistry of Castanospermine, Part IV1: Synthetic Modifications at C-8. Tetrahedron, 1995, 51, 12611-12630.	1.9	28
62	Dendrimer Heparan Sulfate Glycomimetics: Potent Heparanase Inhibitors for Anticancer Therapy. ACS Chemical Biology, 2018, 13, 3236-3242.	3.4	28
63	Stereoselective Total Synthesis of (Â±)-Thielocin AlÎ². Journal of the American Chemical Society, 2001, 123, 11381-11387.	13.7	26
64	A short practical synthesis of deoxymannojirimycin from d-fructose. Tetrahedron Letters, 1993, 34, 3613-3616.	1.4	24
65	<scp>l</scp>-Enantiomers of Transition State Analogue Inhibitors Bound to Human Purine Nucleoside Phosphorylase. Journal of the American Chemical Society, 2008, 130, 842-844.	13.7	23
66	The chemistry of castanospermine, part II: Synthesis of deoxyfluoro analogues of castanospermine. Tetrahedron Letters, 1994, 35, 3143-3146.	1.4	21
67	Synthesis and utility of sulfated chromogenic carbohydrate model substrates for measuring activities of mucin-desulfating enzymes. Carbohydrate Research, 2002, 337, 1095-1111.	2.3	21
68	Transition-State Interactions Revealed in Purine Nucleoside Phosphorylase by Binding Isotope Effects. Journal of the American Chemical Society, 2008, 130, 2166-2167.	13.7	21
69	Entropy-Driven Binding of Picomolar Transition State Analogue Inhibitors to Human 5â€²-Methylthioadenosine Phosphorylase. Biochemistry, 2011, 50, 10408-10417.	2.5	21
70	Immucillins ImmA and ImmH Are Effective and Non-toxic in the Treatment of Experimental Visceral Leishmaniasis. PLoS Neglected Tropical Diseases, 2015, 9, e0004297.	3.0	21
71	A practical synthesis of (3R,4R)-N-tert-butoxycarbonyl-4-hydroxymethylpyrrolidin-3-ol. Organic and Biomolecular Chemistry, 2007, 5, 2800.	2.8	20
72	Composition, Sequencing and Ion Mobility Mass Spectrometry of Heparan Sulfate-like Octasaccharide Isomers Differing in Glucuronic and Iduronic Acid Content. European Journal of Mass Spectrometry, 2015, 21, 245-254.	1.0	20

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73	Stereoselective Total Synthesis of Aminoiminohexitols via Carbamate Annulation. Journal of Organic Chemistry, 2011, 76, 9611-9621.	3.2	19
74	Total synthesis of the C-3 â€“ C-17 segment of boromycin. Canadian Journal of Chemistry, 1983, 61, 634-637.	1.1	18
75	Transition State Analogues of Plasmodium falciparum and Human Orotate Phosphoribosyltransferases. Journal of Biological Chemistry, 2013, 288, 34746-34754.	3.4	18
76	The chemistry of castanospermine, part III:1,2 Castanospermine-6-phosphate, an unusual route to a novel compound. Tetrahedron Letters, 1995, 36, 3055-3058.	1.4	17
77	Salmonella enterica MTAN at 1.36ÂÃ... Resolution: A Structure-Based Design of Tailored Transition State Analogs. Structure, 2013, 21, 963-974.	3.3	17
78	Inhibition and Structure of Toxoplasma gondii Purine Nucleoside Phosphorylase. Eukaryotic Cell, 2014, 13, 572-579.	3.4	16
79	Using automated glycan assembly (AGA) for the practical synthesis of heparan sulfate oligosaccharide precursors. Organic and Biomolecular Chemistry, 2019, 17, 1817-1821.	2.8	15
80	The Immucillins: Design, Synthesis and Application of Transition- State Analogues. Current Medicinal Chemistry, 2015, 22, 3897-3909.	2.4	15
81	Immucillins in custom catalytic-site cavities. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 5900-5903.	2.2	14
82	Methylthioadenosine Deaminase in an Alternative Quorum Sensing Pathway in Pseudomonas aeruginosa. Biochemistry, 2012, 51, 9094-9103.	2.5	14
83	Transition State Analogue Inhibitors of 5â€²-Deoxyadenosine/5â€²-Methylthioadenosine Nucleosidase from Mycobacterium tuberculosis. Biochemistry, 2017, 56, 5090-5098.	2.5	14
84	The transition to magic bullets â€“ transition state analogue drug design. MedChemComm, 2018, 9, 1983-1993.	3.4	14
85	Immucillins Impair Leishmania (L.) infantum chagasi and Leishmania (L.) amazonensis Multiplication In Vitro. PLoS ONE, 2015, 10, e0124183.	2.5	14
86	New mannotriosides and trimannosides as potential ligands for mannose-specific binding proteins. Canadian Journal of Chemistry, 2002, 80, 964-972.	1.1	13
87	Transition state analogue inhibitors of human methylthioadenosine phosphorylase and bacterial methylthioadenosine/S-adenosylhomocysteine nucleosidase incorporating acyclic ribooxacarbenium ion mimics. Bioorganic and Medicinal Chemistry, 2012, 20, 5181-5187.	3.0	12
88	Transition State Analysis of Adenosine Triphosphate Phosphoribosyltransferase. ACS Chemical Biology, 2017, 12, 2662-2670.	3.4	12
89	Synthesis and photolysis of some carbohydrate 1,6-dienes. Carbohydrate Research, 1985, 136, 249-258.	2.3	11
90	Syntheses of novel azasugar-containing mimics of heparan sulfate fragments as potential heparanase inhibitors. Carbohydrate Research, 2010, 345, 1831-1841.	2.3	11

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91	Tight binding enantiomers of pre-clinical drug candidates. Bioorganic and Medicinal Chemistry, 2015, 23, 5326-5333.	3.0	11
92	Transition-State Analogues of Campylobacter jejuni 5â€²-Methylthioadenosine Nucleosidase. ACS Chemical Biology, 2018, 13, 3173-3183.	3.4	11
93	Inhibition of Clostridium difficile TcdA and TcdB toxins with transition state analogues. Nature Communications, 2021, 12, 6285.	12.8	11
94	Selective Inhibitors of Helicobacter pylori Methylthioadenosine Nucleosidase and Human Methylthioadenosine Phosphorylase. Journal of Medicinal Chemistry, 2019, 62, 3286-3296.	6.4	10
95	2-Benzyloxy-6,8-Dioxabicyclo[3.2.1]Octanes: New carbohydrate-derived herbicides. Pest Management Science, 1991, 31, 419-435.	0.4	9
96	Continuous Fluorescence Assays for Reactions Involving Adenine. Analytical Chemistry, 2016, 88, 11860-11867.	6.5	9
97	An evaluation of the herbicidal and plant growth regulatory activity of a novel class of carbohydrate-derived 6,8-dioxabicyclo[3.2.1]octanes. Pest Management Science, 1990, 30, 59-66.	0.4	8
98	The chemistry of castanospermine. Direct oxidation of the tetraacetate to the corresponding Î³-lactam. Carbohydrate Research, 2004, 339, 1747-1751.	2.3	6
99	Aspects of the tautomerism of 2-(d-galacto-1,2,3,4,5-pentahydroxypentyl)benzothiazoline. Carbohydrate Research, 1977, 54, 199-208.	2.3	4
100	Transition State Analogues Enhanced by Fragment-Based Structural Analysis: Bacterial Methylthioadenosine Nucleosidases. Biochemistry, 2020, 59, 831-835.	2.5	4
101	Comparison of disaccharide donors for heparan sulfate synthesis: uronic acids vs. their pyranose equivalents. Organic and Biomolecular Chemistry, 2020, 18, 4728-4733.	2.8	3
102	Translationally related nearly identical molecules: 4-methoxyphenyl 4-O-[6-O-acetyl-2-azido-3-O-benzyl-2-deoxy-4-O-(fluoren-9-ylmethoxycarbonyl)-Î±-D-glucopyranosyl]-2-O-benzoyl-3-O-benzyl-6-O-chloroac Acta Crystallographica Section C: Crystal Structure Communications, 2013, 69, 679-682.	0.9	2
103	Oligonucleotide transition state analogues of saporin L3. European Journal of Medicinal Chemistry, 2017, 127, 793-809.	5.5	2
104	Diastereoselective Carbamate Annulation for the Synthesis of 2,5â€Dideoxyâ€2,5â€iminoglycitols. ChemistrySelect, 2017, 2, 8028-8032.	1.5	2
105	Synthesis and Characterization of Transition-State Analogue Inhibitors against Human DNA Methyltransferase 1. Journal of Medicinal Chemistry, 2022, 65, 5462-5494.	6.4	2
106	Synthesis of deuterated-BCX-1777, a potent inhibitor of purine nucleoside phosphorylase. Journal of Labelled Compounds and Radiopharmaceuticals, 2002, 45, 71-78.	1.0	1
107	(1R,2R,3S,5R,6R,7S,9aR,10aR)-4a,8a-Diazaperhydroanthracene-1,2,3,5,6,7-hexaol. Acta Crystallographica Section E: Structure Reports Online, 2003, 59, o1370-o1371.	0.2	1
108	tert-Butyl 6-O-benzyl-2,2-dichloro-2,5-dideoxy-4-O-methyl-Î±-D-ribo-oct-3-pyranulosonate. Acta Crystallographica Section E: Structure Reports Online, 2003, 59, o1514-o1516.	0.2	1

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109	The synthesis of possible transition state analogue inhibitors of thymidine phosphorylase. Tetrahedron Letters, 2015, 56, 406-409.	1.4	1
110	Aminofutalosine Deaminase in the Menaquinone Pathway of Helicobacter pylori. Biochemistry, 2021, 60, 1933-1946.	2.5	1
111	Crystal packing in three related disaccharides: precursors to heparan sulfate oligosaccharides. Acta Crystallographica Section E: Crystallographic Communications, 2015, 71, 582-587.	0.5	1
112	p-Tolyl 2-O-benzoyl-3-O-benzyl-4,6-O-benzylidene-1-thio-Î±-L-idopyranoside. Acta Crystallographica Section E: Structure Reports Online, 2010, 66, o1598-o1599.	0.2	0