

R Stan Brown

List of Publications by Year in descending order

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43
papers

1,099
citations

279798

23
h-index

395702

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45
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45
docs citations

45
times ranked

666
citing authors

#	ARTICLE	IF	CITATIONS
1	The Dinuclear Zn(II) Complex Catalyzed Cyclization of a Series of 2-Hydroxypropyl Aryl Phosphate RNA Models: Progressive Change in Mechanism from Rate-Limiting P=O Bond Cleavage to Substrate Binding. <i>Journal of the American Chemical Society</i> , 2007, 129, 16238-16248.	13.7	70
2	Combination of a Dinuclear Zn ²⁺ Complex and a Medium Effect Exerts a 1012-Fold Rate Enhancement of Cleavage of an RNA and DNA Model System. <i>Journal of the American Chemical Society</i> , 2006, 128, 16398-16405.	13.7	64
3	Rapid Three-Step Cleavage of RNA and DNA Model Systems Promoted by a Dinuclear Cu(II) Complex in Methanol. Energetic Origins of the Catalytic Efficacy. <i>Journal of the American Chemical Society</i> , 2007, 129, 11642-11652.	13.7	63
4	Mechanistic studies of La ³⁺ - and Zn ²⁺ -catalyzed methanolysis of aryl phosphate and phosphorothioate triesters. Development of artificial phosphotriesterase systems. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 1525.	2.8	55
5	Dinuclear Zn(II) catalysts as biomimics of RNA and DNA phosphoryl transfer enzymes: changing the medium from water to alcohol provides enzyme-like rate enhancements. <i>Journal of Physical Organic Chemistry</i> , 2010, 23, 1-15.	1.9	55
6	A Simple DNase Model System Comprising a Dinuclear Zn(II) Complex in Methanol Accelerates the Cleavage of a Series of Methyl Aryl Phosphate Diesters by 10 ¹¹ –10 ¹³ . <i>Journal of the American Chemical Society</i> , 2008, 130, 6639-6649.	13.7	46
7	Cu(ii)-Mediated decomposition of phosphorothionate P=O pesticides. Billion-fold acceleration of the methanolysis of fenitrothion promoted by a simple Cu(ii)–ligand system. <i>Organic and Biomolecular Chemistry</i> , 2004, 2, 2245-2248.	2.8	42
8	Catalytic Decomposition of Simulants for Chemical Warfare V Agents: Highly Efficient Catalysis of the Methanolysis of Phosphonothioate Esters. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 1767-1770.	13.8	41
9	An ortho-palladated dimethylbenzylamine complex as a highly efficient turnover catalyst for the decomposition of P=O insecticides. Mechanistic studies of the methanolysis of some P=O-containing phosphorothioate triesters. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 3379.	2.8	40
10	Biomimetic Cleavage of RNA Models Promoted by a Dinuclear Zn(II) Complex in Ethanol. Greater than 30 kcal/mol Stabilization of the Transition State for Cleavage of a Phosphate Diester. <i>Journal of the American Chemical Society</i> , 2008, 130, 16711-16720.	13.7	36
11	Investigation of the Effect of Oxy Bridging Groups in Dinuclear Zn(II) Complexes that Catalyze the Cleavage of a Simple Phosphate Diester RNA Analogue. <i>Inorganic Chemistry</i> , 2009, 48, 11425-11433.	4.0	36
12	Demonstration of Prominent Cu(II)-Promoted Leaving Group Stabilization of the Cleavage of a Homologous Set of Phosphate Mono-, Di-, and Triesters in Methanol. <i>Journal of the American Chemical Society</i> , 2010, 132, 3561-3573.	13.7	34
13	DFT Computational Study of the Methanolytic Cleavage of DNA and RNA Phosphodiester Models Promoted by the Dinuclear Zn(II) Complex of 1,3-Bis(1,5,9-triazacyclododec-1-yl)propane. <i>Journal of the American Chemical Society</i> , 2013, 135, 17209-17222.	13.7	34
14	Mechanistic studies of La ³⁺ and Zn ²⁺ -catalyzed methanolysis of O-ethyl O-aryl methylphosphonate esters. An effective solvolytic method for the catalytic destruction of phosphonate CW simulants. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 4082.	2.8	33
15	Cleavage of an RNA Model Catalyzed by Dinuclear Zn(II) Complexes Containing Rate-Accelerating Pendants. Comparison of the Catalytic Benefits of H-Bonding and Hydrophobic Substituents. <i>Journal of Organic Chemistry</i> , 2010, 75, 8471-8477.	3.2	32
16	2004 Bader Award Lecture Metal-ion-catalyzed acyl and phosphoryl transfer reactions to alcohols: La ³⁺ -promoted alcoholysis of activated amides, carboxylate esters, and neutral organophosphorus esters. <i>Canadian Journal of Chemistry</i> , 2004, 82, 1791-1805.	1.1	30
17	Leaving Group Assistance in the La ³⁺ -Catalyzed Cleavage of Dimethyl (<i>i</i> -Methoxycarbonyl)aryl Phosphate Triesters in Methanol. <i>Journal of the American Chemical Society</i> , 2009, 131, 13738-13748.	13.7	29
18	Metal ion promoted transesterifications of carboxylate esters. A structure/activity study of the efficacy of Zn ²⁺ and La ³⁺ to catalyze the methanolysis of some aryl and aliphatic esters. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 65.	2.8	27

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19	Metal-catalyzed alcoholysis reactions of carboxylate and organophosphorus esters. <i>Advances in Physical Organic Chemistry</i> , 2007, , 271-331.	0.5	27
20	Enzyme-like Acceleration for the Hydrolysis of a DNA Model Promoted by a Dinuclear Zn(II) Catalyst in Dilute Aqueous Ethanol. <i>Journal of the American Chemical Society</i> , 2008, 130, 13870-13872.	13.7	27
21	Dinuclear Zn(II) Complex Promotes Cleavage and Isomerization of 2-Hydroxypropyl Alkyl Phosphates by a Common Cyclic Phosphate Intermediate. <i>Journal of the American Chemical Society</i> , 2009, 131, 4159-4166.	13.7	24
22	Dissociative Solvolytic Cleavage of Methyl (ortho-Carboxymethyl)Aryl Phosphate Diesters Mediated by Yb ³⁺ in Methanol Gives a 1012-Fold Rate Acceleration Attributable to Leaving Group Assistance. <i>Journal of the American Chemical Society</i> , 2009, 131, 368-377.	13.7	24
23	Mechanistic and Computational Study of a Palladacycle-Catalyzed Decomposition of a Series of Neutral Phosphorothioate Triesters in Methanol. <i>Journal of the American Chemical Society</i> , 2010, 132, 16599-16609.	13.7	24
24	Solvent deuterium kinetic isotope effects for the methanolyses of neutral C=O, P=O and P=S esters catalyzed by a triazacyclododecane : Zn ²⁺ -methoxide complex. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 4329.	2.8	21
25	Comparison of Cu(II)-Promoted Leaving Group Stabilization of the Cleavage of a Homologous Set of Phosphate Mono-, Di-, and Triesters in Water, Methanol, and Ethanol. <i>Inorganic Chemistry</i> , 2012, 51, 3846-3854.	4.0	20
26	A Reductionist Biomimetic Model System That Demonstrates Highly Effective Zn(II)-Catalyzed Cleavage of an RNA Model. <i>Inorganic Chemistry</i> , 2007, 46, 1778-1788.	4.0	19
27	Solvent induced cooperativity of Zn(II) complexes cleaving a phosphatediester RNA analog in methanol. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 631-639.	2.8	18
28	An Immobilized Ortho-Palladated Dimethylbenzylamine Complex as an Efficient Catalyst for the Methanolysis of Phosphorothionate Pesticides. <i>Inorganic Chemistry</i> , 2009, 48, 1183-1191.	4.0	15
29	On the question of stepwise vs. concerted cleavage of RNA models promoted by a synthetic dinuclear Zn(ii) complex in methanol: implementation of a noncleavable phosphonate probe. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 822-827.	2.8	13
30	Study on the Transesterification of Methyl Aryl Phosphorothioates in Methanol Promoted by Cd(II), Mn(II), and a Synthetic Pd(II) Complex. <i>Inorganic Chemistry</i> , 2011, 50, 1786-1797.	4.0	11
31	Efficient Methanolytic Cleavage of Phosphate, Phosphonate, and Phosphonothioate Esters Promoted by Solid Supported Lanthanide Ions. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 7027-7033.	3.7	10
32	Methanolysis of Thioamide Promoted by a Simple Palladacycle Is Accelerated by 10 ⁸ over the Methoxide-Catalyzed Reaction. <i>Journal of the American Chemical Society</i> , 2011, 133, 20068-20071.	13.7	10
33	Development of metal-ion containing catalysts for the decomposition of phosphorothioate esters. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013, 1834, 433-442.	2.3	9
34	Density functional theory study of methoxide promoted and Zn(II)-complexed methoxide promoted cleavages of aryl- and alkyl acetates in methanol. Transition from concerted to stepwise processes as a function of leaving group ability. <i>Journal of Physical Organic Chemistry</i> , 2014, 27, 419-429.	1.9	9
35	Halogen Transfer Reactions from bis-Amino Halonium Ions to Acceptor Olefins: Mechanism and Strategies for Chiral Halogenation. <i>ACS Symposium Series</i> , 2007, , 458-476.	0.5	8
36	Experimental and computational determination of Brønsted coefficients for equilibrium transfer of the dimethyl phosphorothioyl group between oxyanion nucleophiles. <i>Journal of Physical Organic Chemistry</i> , 2012, 25, 258-266.	1.9	6

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37	Methanolysis of organophosphorus esters promoted by an M^{2+} catalyst supported on polystyrene-based copolymers. <i>Canadian Journal of Chemistry</i> , 2008, 86, 91-100.	1.1	5
38	Cleavage of models for RNA mediated by a $diZn(II)$ complex of bis[1,4- N_1 , N_1 - $\epsilon^2(1,5,9$ -triazacyclododecanyl)]butane in methanol and ethanol. <i>Canadian Journal of Chemistry</i> , 2009, 87, 640-649.	1.1	5
39	A mechanistic study of the $[La^{2+}(OCH_3)_2]^{4+}$ - and $[(1,5,9$ -triazacyclodecane) $:Zn(OCH_3)_3]^{+}$ -catalyzed methanolysis of carbonates: possible application for the recycling of bisphenol A polycarbonates. <i>Canadian Journal of Chemistry</i> , 2013, 91, 1139-1146.	1.1	5
40	Cu(II)-Promoted Methanolysis of N,N -Bis(2-picolyl)carbamates: Rate-Limiting Metal Ion Delivery of Coordinated Alcoholate Nucleophile Followed by Fast Partitioning of a Tetrahedral Intermediate. <i>Journal of Organic Chemistry</i> , 2015, 80, 1357-1364.	3.2	5
41	Development of metal ion promoted alcoholysis as a rapid methodology for the destruction of organophosphorus CW agents, their simulants and pesticides. <i>Main Group Chemistry</i> , 2010, 9, 265-281.	0.8	4
42	Palladacycle-Promoted Solvolytic Cleavage of O,O -Dimethyl O -Aryl Phosphorothioates. Converting a Phosphorane-Like Transition State to an Observable Intermediate. <i>Inorganic Chemistry</i> , 2011, 50, 7852-7862.	4.0	4
43	Metal Ion-Promoted Leaving Group Assistance in the Light Alcohols. <i>Advances in Physical Organic Chemistry</i> , 2015, 49, 1-55.	0.5	1