

David M Birney

List of Publications by Year in descending order

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47
papers

2,006
citations

218381

26
h-index

233125

45
g-index

49
all docs

49
docs citations

49
times ranked

1253
citing authors

#	ARTICLE	IF	CITATIONS
1	Transition structures of the Lewis acid-catalyzed Diels-Alder reaction of butadiene with acrolein. The origins of selectivity. <i>Journal of the American Chemical Society</i> , 1990, 112, 4127-4133.	6.6	196
2	An ab Initio Study of the Reactivity of Formylketene. Pseudopericyclic Reactions Revisited. <i>Journal of the American Chemical Society</i> , 1994, 116, 6262-6270.	6.6	150
3	Pericyclic and Pseudopericyclic Thermal Cheletropic Decarbonylations: When Can a Pericyclic Reaction Have a Planar, Pseudopericyclic Transition State? <i>Journal of the American Chemical Society</i> , 1997, 119, 4509-4517.	6.6	140
4	Further Pseudopericyclic Reactions: An ab Initio Study of the Conformations and Reactions of 5-Oxo-2,4-pentadienal and Related Molecules. <i>Journal of Organic Chemistry</i> , 1996, 61, 243-251.	1.7	114
5	Electrocyclic Ring Openings of 2-Furylcarbene and Related Carbenes: A Comparison between Pseudopericyclic and Coarctate Reactions. <i>Journal of the American Chemical Society</i> , 2000, 122, 10917-10925.	6.6	96
6	A Density Functional Theory Study Clarifying the Reactions of Conjugated Ketenes with Formaldimine. A Plethora of Pericyclic and Pseudopericyclic Pathways. <i>Journal of the American Chemical Society</i> , 2002, 124, 5231-5241.	6.6	91
7	[1,3], [3,3], and [3,5] Sigmatropic Rearrangements of Esters Are Pseudopericyclic. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 189-193.	7.2	88
8	Chemoselectivity in the Reactions of Acetylketene and Acetimidoylketene: Confirmation of Theoretical Predictions. <i>Journal of Organic Chemistry</i> , 1997, 62, 7114-7120.	1.7	74
9	Potential Energy Surface for (Retro-)Cyclopropanation: Metathesis with a Cationic Gold Complex. <i>Journal of the American Chemical Society</i> , 2011, 133, 12162-12171.	6.6	72
10	Structural Investigations into the retro-Diels-Alder Reaction. Experimental and Theoretical Studies. <i>Journal of the American Chemical Society</i> , 2002, 124, 5091-5099.	6.6	66
11	Reinvestigation of the Reactions of Camphorketene: Structural Evidence for Pseudopericyclic Pathways. <i>Journal of Organic Chemistry</i> , 2001, 66, 5832-5839.	1.7	61
12	On the Development of Aromaticity in Cycloadditions: Ab Initio Transition Structures for the Trimerization of Acetylene and for the Addition of Ethylene and Acetylene to Formyl ketene. <i>Journal of Organic Chemistry</i> , 1995, 60, 2853-2859.	1.7	57
13	Orthoquinone monoketal chemistry. Experimental and density functional theory studies on orthoquinol acetate rearrangements. <i>Tetrahedron Letters</i> , 1999, 40, 615-618.	0.7	49
14	Felkin-Anh Stereoselectivity in Cycloadditions of Acetylketene: Evidence for a Concerted, Pseudopericyclic Pathway. <i>Journal of Organic Chemistry</i> , 2000, 65, 7731-7739.	1.7	44
15	Experimental Support for Planar Pseudopericyclic Transition States in Thermal Cheletropic Decarbonylations. <i>Organic Letters</i> , 2004, 6, 4289-4292.	2.4	41
16	Experimental and Theoretical Studies on the Thermal Decomposition of Heterocyclic Nitrosimines. <i>Journal of the American Chemical Society</i> , 2001, 123, 7479-7486.	6.6	37
17	Imidoylketene: An ab Initio Study of Its Conformations and Reactions. <i>Journal of Organic Chemistry</i> , 1996, 61, 3962-3968.	1.7	36
18	Parallel Combinatorial Esterification: A Simple Experiment for Use in the Second-Semester Organic Chemistry Laboratory. <i>Journal of Chemical Education</i> , 1999, 76, 1560.	1.1	36

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19	Cyclohexane Isomerization. Unimolecular Dynamics of the Twist-Boat Intermediate. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4570-4580.	1.1	35
20	Experimental and Theoretical Studies of the Dimerizations of Imidoylketenes. <i>Journal of Organic Chemistry</i> , 2004, 69, 86-94.	1.7	32
21	Conformations and Infrared Spectra of .alpha.-Oxo Ketenes from ab Initio Calculations: The Role of Electrostatics. <i>Journal of Organic Chemistry</i> , 1994, 59, 2557-2564.	1.7	31
22	Stopped-Flow Kinetics of Tetrazine Cycloadditions; Experimental and Computational Studies toward Sequential Transition States. <i>Journal of Physical Chemistry A</i> , 2006, 110, 1288-1294.	1.1	31
23	Synthesis of the covalent benzene-carbon monoxide cycloadduct, norborna-2,5-dien-7-one. <i>Tetrahedron</i> , 1986, 42, 1561-1570.	1.0	30
24	Nitrosation of Amides Involves a Pseudopericyclic 1,3-Sigmatropic Rearrangement. <i>Organic Letters</i> , 2004, 6, 851-854.	2.4	30
25	Sequential Transition States and the Valley-Ridge Inflection Point in the Formation of a Semibullvalene. <i>Organic Letters</i> , 2002, 4, 3279-3282.	2.4	29
26	Multiphoton Infrared Initiated Thermal Reactions of Esters: Pseudopericyclic Eight-Centered <i>cis</i> -Elimination. <i>Journal of the American Chemical Society</i> , 2009, 131, 528-537.	6.6	29
27	Norborna-2,5-dien-7-one: a covalent benzene-carbon monoxide adduct. A new point on the cycloreversion structure-reactivity correlation curve. <i>Journal of the American Chemical Society</i> , 1985, 107, 4553-4554.	6.6	27
28	Photochemical dehydration of acetamide in a cryogenic matrix. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 1099.	1.3	26
29	Experimental and Computational Studies on the [3,3]- and [3,5]-Sigmatropic Rearrangements of Acetoxycyclohexadienones: A Non-ionic Mechanism for Acyl Migration. <i>Journal of the American Chemical Society</i> , 2013, 135, 14438-14447.	6.6	23
30	FTIR and ab Initio Studies of Gaseous Nitrosoketene via Pyrolysis of Isonitroso Meldrum's Acid. <i>Journal of Physical Chemistry A</i> , 1997, 101, 3936-3941.	1.1	22
31	The Stereochemistry of the Thermal Cheletropic Decarbonylation of 3-Cyclopentenone As Determined by Multiphoton Infrared Photolysis/Thermolysis. <i>Journal of the American Chemical Society</i> , 2003, 125, 8529-8533.	6.6	22
32	Viscosity reduction of castor oil esters by the addition of diesel, safflower oil esters and additives. <i>Industrial Crops and Products</i> , 2012, 36, 267-270.	2.5	22
33	An ab initio study of the reactivity of nitrosoketene with formaldehyde. <i>Tetrahedron Letters</i> , 1994, 35, 8113-8116.	0.7	20
34	Kinetics of nucleophilic addition of tertiary phosphines to dicarbonylnitrosyl(cyclobutadiene)iron cation and tricarbonyl(cycloheptatriene)manganese cation. <i>Journal of Organometallic Chemistry</i> , 1978, 152, 187-192.	0.8	17
35	Competitive Pseudopericyclic [3,3]- and [3,5]-Sigmatropic Rearrangements of Trichloroacetimidates. <i>Journal of Organic Chemistry</i> , 2015, 80, 11734-11743.	1.7	17
36	Optimizing esterification of safflower, cottonseed, castor and used cottonseed oils. <i>Industrial Crops and Products</i> , 2013, 41, 102-106.	2.5	16

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37	Geometry of the transition state of the decarbonylation of bicyclo[2.2.1]hepta-2,5-dien-7-one. Experimental and ab initio theoretical studies. <i>Journal of the American Chemical Society</i> , 1988, 110, 6631-6642.	6.6	14
38	Further ab initio studies on the reactivity of nitrosoketene. <i>Tetrahedron Letters</i> , 1997, 38, 5925-5928.	0.7	14
39	An efficient synthesis of 4-substituted coumarin derivatives via a palladium-catalyzed Suzuki cross-coupling reaction. <i>Tetrahedron Letters</i> , 2014, 55, 6627-6630.	0.7	14
40	A Computational Study of the Formation and Dimerization of Benzothiet-2-one. <i>Organic Letters</i> , 2008, 10, 245-248.	2.4	10
41	Sodium carbonate as a solid-phase reagent for the generation of acetylketene. <i>Tetrahedron Letters</i> , 2009, 50, 1295-1297.	0.7	10
42	A Theoretical Study of the [4 + 4] Dimerization of Thioformylketene. <i>Organic Letters</i> , 2005, 7, 5817-5820.	2.4	8
43	A Computational Study on the Addition of HONO to Alkynes toward the Synthesis of Isoxazoles; a Bifurcation, Pseudopericyclic Pathways and a Barrierless Reaction on the Potential Energy Surface. <i>Journal of Organic Chemistry</i> , 2017, 82, 8873-8881.	1.7	7
44	Selective oxygenation of olefins with hydrogen peroxide catalyzed by iron(II) bipyridine complex included in NaY zeolite under visible light irradiation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2013, 266, 22-27.	2.0	5
45	A pseudopericyclic [3,5]-sigmatropic rearrangement of a coumarin trichloroacetimidate derivative. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 874-879.	1.5	3
46	[1,3], [3,3], and [3,5] Sigmatropic Rearrangements of Esters Are Pseudopericyclic. , 1999, 38, 189.		3
47	Design of Experiments (about J. Chem. Educ. 1999, 76, 1560-1561). <i>Journal of Chemical Education</i> , 2000, 77, 1557.	1.1	0