Luke A Burke

List of Publications by Year
in descending order

34 papers	1,016 citations	471509 17 h-index	414414 32 g-index
36 all docs	36 docs citations	36 times ranked	733 citing authors

#	Article	IF	Citations
1	A Ceric Ammonium Nitrate N-Dearylation of N-p-Anisylazoles Applied to Pyrazole, Triazole, Tetrazole, and Pentazole Rings:â€‰ Release of Parent Azoles. Generation of Unstable Pentazole, HN₅/N₅⁻, in Solution. Journal of Organic Chemistry, 2008, 73, 1354-1364.	3.2	96
2	First generation of pentazole (HN5, pentazolic acid), the final azole, and a zinc pentazolate salt in solution: A new N-dearylation of 1-(p-methoxyphenyl) pyrazoles, a 2-(p-methoxyphenyl) tetrazole and application of the methodology to 1-(p-methoxyphenyl) pentazoleElectronic supplementary information (ESI) available: experimental details. See http://www.rsc.org/suppdata/cc/b3/b301491f/. Chemical Communications, 2003, , 1016-1017.	4.1	91
3	Theoretical study of the azido-tetrazole isomerization. Journal of the American Chemical Society, 1976, 98, 1685-1690.	13.7	85
4	The Influence of Water on the Rates of 1,3-Dipolar Cycloaddition Reactions:Â Trigger Points for Exponential Rate Increases in Waterâ^'Organic Solvent Mixtures. Water-Super versus Water-Normal Dipolarophiles. Journal of the American Chemical Society, 2004, 126, 11923-11929.	13.7	77
5	Theoretical study of the Diels-Alder reaction. Theoretica Chimica Acta, 1975, 40, 313-321.	0.8	65
6	Theoretical study of water clusters. I. Pentamer. Chemical Physics Letters, 1993, 206, 293-296.	2.6	59
7	Theoretical characterization of pentazole anion with metal counter ions. Calculated and experimental 15N shifts of aryldiazonium, -azide and -pentazole systemsâ€. Perkin Transactions II RSC, 2001, , 1679-1684.	1.1	53
8	Theoretical study of water clusters: octamer. Chemical Physics Letters, 1995, 246, 13-19.	2.6	52
9	Theoretical study of the vinyl azide-.upsilon.-triazole isomerization. Journal of the American Chemical Society, 1978, 100, 3668-3674.	13.7	50
10	Theoretical study of water clusters. II. Hexamer. Chemical Physics Letters, 1994, 217, 311-318.	2.6	42
11	Pentazole chemistry: the mechanism of the reaction of aryldiazonium chlorides with azide ion at â^'80â€…Â°C: concerted versus stepwise formation of arylpentazoles, detection of a pentazene intermediate, a combined 1H and 15N NMR experimental and ab initio theoretical study. Journal of the Chemical Society Perkin Transactions II, 1998, , 2243-2248.	0.9	40
12	Theoretical study of water clusters: Heptamers. Chemical Physics Letters, 1995, 241, 253-260.	2.6	39
13	Kinetic and synthetic influences of water and solvent-free conditions on 1,3-dipolar cycloaddition reactions: the phthalazinium and pyridazinium dicyanomethanide 1,3-dipoles: surprisingly successful synthetic methodsElectronic supplementary information (ESI) available: sample kinetic graphs and optimised transition state structures. See http://www.rsc.org/suppdata/p2/b2/b206028k/. Perkin Transactions II RSC, 2002, , 1807-1815.	1.1	38
14	Regioselectivity and endo/exo selectivity in the cycloadditions of the phthalazinium dicyanomethanide 1,3-dipole with unsymmetrical alkene and alkyne dipolarophiles. Unexpected reversals of regiochemistry: a combined experimental and DFT theoretical study. Journal of the Chemical Society, Perkin Transactions 1, 2001, , 1391-1397.	1.3	27
15	Theoretical study of water clusters: nonamers. Chemical Physics Letters, 1996, 260, 499-506.	2.6	24
16	Ion pair formation in water clusters: a theoretical study. Chemical Physics Letters, 1997, 276, 145-151.	2.6	20
17	The kinetic profile of phthalazinium-2-dicyanomethanide 1,3-dipole with 2Ï€-dipolarophiles: U-shaped dipolarophilic activity and classic type II dipole behaviour. Reaction rates and DFT calculations. Perkin Transactions II RSC, 2001, , 1781-1784.	1.1	17
18	Consideration of spin states in determining the structure and decomposition of the transition metal pentazoles FeClN5, Fe(N5)2, Fe(H2O)4ClN5, and Fe(NH3)4ClN5Electronic supplementary information (ESI) available: energies for all structures with the various basis sets. See http://www.rsc.org/suppdata/cc/b3/b315812h/. Chemical Communications, 2004, , 1082.	4.1	12

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19	Correlation analysis of the interconversion and nitrogen loss reactions of aryl pentazenes and pentazoles derived from aryl diazonium and azide ions. International Journal of Quantum Chemistry, 2009, 109, 3613-3618.	2.0	11
20	Synchronism in the Diels-Alder reaction. International Journal of Quantum Chemistry, 1986, 29, 511-518.	2.0	10
21	The theoretical study of (2 + 2) cycloadditions â€•the concerted ethylene dimerizations reaction. Bulletin Des SociÃ©tÃ©s Chimiques Belges, 1979, 88, 379-393.	0.0	10
22	Selective Activation of C=C Bond in Sustainable Phenolic Compounds from Lignin via Photooxidation: Experiment and Density Functional Theory Calculations. Photochemistry and Photobiology, 2015, 91, 1332-1339.	2.5	10
23	The influence of the cyclic product's structure on the Diels-Alder transition state. Theoretica Chimica Acta, 1985, 68, 101-105.	0.8	9
24	The reactions of 1,2,3-triazolium-1-imides with dipolarophiles: kinetics and mechanism. Azolium 1,3-dipoles. Journal of the Chemical Society Perkin Transactions II, 1992, , 1103.	0.9	9
25	Theoretical study of the possible isomers and high-energy intermediates of HCNî—¸H2O complexes. Computational and Theoretical Chemistry, 1998, 427, 199-209.	1.5	9
26	Uncharacteristic thione behavior in a Huisgen cycloaddition reaction: a kinetic and theoretical study. Tetrahedron Letters, 2007, 48, 6684-6687.	1.4	9
27	Theoretical study of possible products of the combination of H2O and HCN. Computational and Theoretical Chemistry, 1996, 370, 245-252.	1.5	6
28	Computational Investigation of Rearrangements in Huisgen Cycloadducts of Azolium N-Dicyanomethanide 1,3-Dipoles with Alkynes: A Mechanistic Panoply. Journal of Organic Chemistry, 2009, 74, 5199-5210.	3.2	5
29	The nonplanarity ofn-doped polyenes and of carbanions with alkali metal counterions. International Journal of Quantum Chemistry, 1988, 34, 51-57.	2.0	4
30	An unusual substituent effect in a cycloaddition of an azolium ylide 1,3â€dipole: An inverted Vâ€shaped hammett plot. Journal of Heterocyclic Chemistry, 1997, 34, 1825-1827.	2.6	3
31	Spirally twisted imidazolium iminyl ylide structures from 1,2-rearrangements in reactions of imidazolium dicyanomethanide 1,3-dipoles with maleic anhydride: new perspectives on the Boekelheideâ€“Fedoruk ring expansions. Tetrahedron Letters, 2006, 47, 6107-6111.	1.4	3
32	A self-assembled, metallo-organic supramolecular frequency doubler. Chemical Communications, 2012, 48, 1000-1002.	4.1	3
33	Alternating Planarity/Nonplanarity in n-Doped Odd-Membered, All- Trans Polyenes: Molecular Structures of NaC n H n+2 (n = 3, 5, 7, and 9). Journal of Molecular Modeling, 2000, 6, 248-256.	1.8	1
34	Spectroscopic and photophysical properties of dicopper(I) metallocyclophanes. International Journal of Quantum Chemistry, 2010, 110, 3061-3071.	2.0	1