

Goetz F Bucher

List of Publications by Year in descending order

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76
papers

1,778
citations

218677

26
h-index

289244

40
g-index

83
all docs

83
docs citations

83
times ranked

1558
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbenes in matrixes: spectroscopy, structure, and reactivity. <i>Chemical Reviews</i> , 1993, 93, 1583-1621.	47.7	277
2	A CCSD(T) and DFT investigation of m-benzyne and 4-hydroxy-m-benzyne. <i>Chemical Physics Letters</i> , 1997, 268, 313-320.	2.6	70
3	1H-Bicyclo[3.1.0]hexa-3,5-dien-2-one. A strained 1,3-bridged cyclopropene. <i>Journal of the American Chemical Society</i> , 1991, 113, 5311-5322.	13.7	67
4	Infrared, UV/Vis, and W-band EPR Spectroscopic Characterization and Photochemistry of Triplet Mesitylphosphinidene. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 3289-3293.	13.8	61
5	Laser Flash Photolysis of Pyridine N-Oxide: Kinetic Studies of Atomic Oxygen [O(3P)] in Solution. <i>The Journal of Physical Chemistry</i> , 1994, 98, 12471-12473.	2.9	57
6	Direct observation of the cyclopropene-vinylcarbene rearrangement. Matrix isolation of bicyclo[3.1.0]hexa-3,5-dien-2-ones. <i>Journal of Organic Chemistry</i> , 1992, 57, 1346-1351.	3.2	56
7	Photoinduced Interactions Between Oxidized and Reduced Lipoic Acid and Riboflavin (Vitamin B2). <i>ChemPhysChem</i> , 2004, 5, 47-56.	2.1	53
8	A novel neutral organic electron donor with record half-wave potential. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 8073.	2.8	52
9	Generation and Photoreactions of 2,4,6-Trinitro-1,3,5-triazine, a Septet Trinitrene. <i>Journal of the American Chemical Society</i> , 2004, 126, 7846-7852.	13.7	51
10	Carbonyl $\langle i \rangle O \langle /i \rangle$ -Oxides and Dioxiranes: The Influence of Substituents on Spectroscopic Properties. <i>Chemische Berichte</i> , 1992, 125, 1851-1859.	0.2	42
11	Intramolecular Disulfide Bridges as a Phototrigger To Monitor the Dynamics of Small Cyclic Peptides. <i>Journal of Physical Chemistry B</i> , 2007, 111, 11297-11302.	2.6	42
12	Photochemical Myers-Saito and C2-C6 Cyclizations of Enyne-Allenes: Direct Detection of Intermediates in Solution. <i>Journal of the American Chemical Society</i> , 2005, 127, 5324-5325.	13.7	39
13	Thermal C2-C6 Cyclization of Enyne-Allenes. Experimental Evidence for a Stepwise Mechanism and for an Unusual Thermal Silyl Shift. <i>Journal of Organic Chemistry</i> , 2007, 72, 2166-2173.	3.2	38
14	Electronically Stabilized Nonplanar Phenalenyl Radical and Its Planar Isomer. <i>Journal of the American Chemical Society</i> , 2015, 137, 14944-14951.	13.7	38
15	The Photochemistry of Lipoic Acid: Photoionization and Observation of a Triplet Excited State of a Disulfide. <i>ChemPhysChem</i> , 2005, 6, 2607-2618.	2.1	37
16	Laser Flash Photolysis of Carbamates Derived from 9-Fluorenone Oxime. <i>Journal of the American Chemical Society</i> , 1995, 117, 3848-3855.	13.7	36
17	Photochemistry of p-Benzoquinone Diazide Carboxylic Acids: Formation of 2,4-Didehydrophenols. <i>Journal of the American Chemical Society</i> , 1997, 119, 10660-10672.	13.7	34
18	1,3-Didehydro-5-methyl-6-hydroxytoluene: Matrix Isolation of a Diradical Related to the Neocarzinostatin Chromophore. <i>Journal of the American Chemical Society</i> , 1998, 120, 8480-8485.	13.7	33

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19	Tools to study the degradation and loss of the N-phenyl carbamate chlorpropham – A comprehensive review. <i>Environment International</i> , 2012, 49, 38-50.	10.0	33
20	Structure and Spectroscopic Properties of <i>p</i> -Benzoquinone Diazides. <i>Chemische Berichte</i> , 1993, 126, 2101-2109.	0.2	32
21	DFT Calculations on a New Class of C ₃ -Symmetric Organic Bases: Highly Basic Proton Sponges and Ligands for Very Small Metal Cations. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 4039-4042.	13.8	32
22	Photochemistry of 2-azido-4,6-dichloro-s-triazine: matrix isolation of a strained cyclic carbodiimide containing four nitrogen atoms in a seven-membered ring. <i>Chemical Communications</i> , 1999, , 2113-2114.	4.1	30
23	Dicyanocarbodiimide and Trinitro-s-triazine Generated by Consecutive Photolysis of Triazido-s-triazine in a Low-Temperature Nitrogen Matrix. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 5206-5209.	13.8	30
24	The Photochemical C ² →C ⁶ Cyclization of Enyne Allenes: Interception of the Fulvene Diradical with a Radical Clock Ring Opening. <i>Journal of Organic Chemistry</i> , 2009, 74, 5850-5860.	3.2	30
25	Is the [9]Annulene Cation a Möbius Annulene?. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 9971-9974.	13.8	29
26	Photochemical C ² →C ⁶ Cyclization of Enyne Allenes: Detection of a Fulvene Triplet Diradical in the Laser Flash Photolysis. <i>Journal of Organic Chemistry</i> , 2008, 73, 8815-8828.	3.2	27
27	Naphthoxanthenyl, a New Stable Phenalenyl Type Radical Stabilized by Electronic Effects. <i>Organic Letters</i> , 2013, 15, 2970-2973.	4.6	26
28	Characterization of Alkoxy carbonyl Radicals by Step-Scan Time-Resolved Infrared Spectroscopy. <i>European Journal of Organic Chemistry</i> , 2001, 2001, 545-552.	2.4	25
29	Hydroxycarbene: Watching a Molecular Mole at Work. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 6957-6958.	13.8	22
30	Absolute Rate Constants for Atomic Fluorine in Solution: Characterization of Reaction Intermediates in the Laser Flash Photolysis of Xenon Difluoride. <i>Journal of the American Chemical Society</i> , 1994, 116, 10076-10079.	13.7	21
31	Chemistry and spectroscopy of aromatic diradicals in cryogenic matrices. <i>Pure and Applied Chemistry</i> , 1996, 68, 353-356.	1.9	21
32	Photochemistry of 9-fluorenone oxime phenylglyoxylate: a combined TRIR, TREPR and ab initio study. <i>Journal of Physical Organic Chemistry</i> , 2004, 17, 207-214.	1.9	19
33	A Laser Flash Photolysis Study on 2-Azido-N,N-diethylbenzylamine – The Reactivity of Iminoquinone Methides in Solution. <i>European Journal of Organic Chemistry</i> , 2001, 2001, 2463-2475.	2.4	14
34	Clarifying the structure of carbonic acid. <i>Science</i> , 2014, 346, 544-545.	12.6	14
35	Photochemistry of an Azido-Functionalized Cryptand: Controlling the Reactivity of an Extremely Long-Lived Singlet Aryl Nitrene by Complexation to Alkali Cations. <i>Journal of the American Chemical Society</i> , 2005, 127, 6883-6892.	13.7	13
36	Photochemical Generation of Iminoquinone Methides by 1,4-Hydrogen Migration in Derivatives of o-Tolyl nitrene. <i>European Journal of Organic Chemistry</i> , 2001, 2001, 2447-2462.	2.4	12

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37	$\hat{\text{I}}^2$ -Phenyl quenching of 9-phenylphenalenones: a novel photocyclisation reaction with biological implications. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 18813-18820.	2.8	12
38	Correlating ionic liquid solvent effects with solvent parameters for a reaction that proceeds through a xanthylium intermediate. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 9336-9342.	2.8	12
39	Ethylogylogization of a Coarctate Fragmentation. <i>Chemistry - A European Journal</i> , 2000, 6, 1224-1228.	3.3	12
40	Ester Pyrolysis of Carbonates: Bis(benzene hydrate) Carbonate as Potential Precursor for Monomeric Carbonic Acid. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 1070-1075.	2.4	11
41	Absolute Rate Constants for the Reactions of Sulfur (3P) Atoms in Solution. <i>Journal of the American Chemical Society</i> , 1997, 119, 1961-1970.	13.7	10
42	Steady-State and Time-Resolved Studies on Photoinduced Disulfide Bond Cleavage Using Aniline as an Electron Donor. <i>ChemPhysChem</i> , 2004, 5, 399-402.	2.1	10
43	Triplet Excited States of Cyclic Disulfides and Related Compounds: Electronic Structures, Geometries, Energies, and Decay. <i>Journal of Physical Chemistry A</i> , 2011, 115, 540-546.	2.5	10
44	Mechanisms of the thermal decay of chlorpropham. <i>Journal of Hazardous Materials</i> , 2013, 246-247, 154-162.	12.4	10
45	Laser Flash Photolysis of Disulfonyldiazomethanes: Partitioning between Hetero-Wolff Rearrangement and Intramolecular Carbene Oxidation by a Sulfonyl Group. <i>European Journal of Organic Chemistry</i> , 2003, 2003, 2153-2158.	2.4	9
46	Addition of the Carbonyl Oxygen to the <i>ipso</i> - or <i>ortho</i> -Carbon Atoms of the $\hat{\text{I}}^2$ -Phenyl Ring Followed by Intersystem Crossing and Rapid Relaxation to the Ground-State Ketones: A Mechanism for $\hat{\text{I}}^2$ -Phenyl Quenching of the First Triplet Excited States of Derivatives of $\hat{\text{I}}^2$ -Phenylpropiophenone. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5411-5417.	2.5	9
47	Generation and Characterization of the Selenocysteiny Radical: A Direct Evidence from Time-Resolved UV/Vis, Electron Paramagnetic Resonance, and Fourier Transform Infrared Spectroscopy. <i>Journal of Organic Chemistry</i> , 2005, 70, 6609-6615.	3.2	8
48	Photochemical studies of atomic species (F, Br, O) in solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1996, 102, 7-11.	3.9	7
49	Photochemistry of <i>ortho</i> -Phenoxyethyl-Substituted Aryl Azides: A Novel Nitrene Rearrangement En Route to Isolable Iminoquinone Methides?. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 212-215.	13.8	7
50	Azidocryptands' synthesis, structure, and complexation properties. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 303-308.	2.8	7
51	($\hat{\text{i}}^*$, $\hat{\text{j}}^*$), ($\hat{\text{i}}^*$, $\hat{\text{j}}^*$) and Rydberg Triplet Excited States of Hydrogen Peroxide and Other Molecules Bearing Two Adjacent Heteroatoms. <i>Journal of Physical Chemistry A</i> , 2014, 118, 2332-2343.	2.5	7
52	Tris(1-naphthyl)borane Studied by Laser Flash Photolysis, Matrix Isolation, and Low-Temperature NMR Spectroscopy: Two Isomers with Significantly Different Triplet Excited State Properties. <i>Liebigs Annalen</i> , 1997, 1997, 1415-1423.	0.8	6
53	9-Aryl-phenalenones: Bioinspired thermally reversible photochromic compounds for photoswitching applications in the pico-to milliseconds range. <i>Dyes and Pigments</i> , 2021, 186, 109060.	3.7	6
54	Evidence for Intramolecular Ylide Formation in the Decay of a Singlet Aryl Nitrene. <i>European Journal of Organic Chemistry</i> , 2004, 2004, 269-271.	2.4	5

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55	A TRIR, TREPR and Computational Study on the Reactivity and Structure of the 2,2,2-Trifluoroethoxycarbonyl Radical. <i>Photochemistry and Photobiology</i> , 2006, 82, 332.	2.5	5
56	Quenching of Triplet Benzophenone by Benzene and Diphenyl Ether: A DFT Study. <i>Journal of Physical Chemistry A</i> , 2010, 114, 10712-10716.	2.5	5
57	Organische Chemie 2001. <i>Nachrichten Aus Der Chemie</i> , 2002, 50, 289-311.	0.0	4
58	Revisiting the Reduction of Di-tert-butyl Ketone with Alkali Metals. <i>European Journal of Organic Chemistry</i> , 2003, 2003, 2229-2232.	2.4	4
59	Computational and Matrix Isolation Studies of Tetra-tert-butylethane. <i>European Journal of Organic Chemistry</i> , 2009, 2009, 4340-4345.	2.4	4
60	9-Iodophenalenone and 9-trifluoromethanesulfonyloxyphenalenone: convenient entry points to new phenalenones functionalised at the 9-position. Iodine-carbonyl interaction studies by X-ray crystallography. <i>RSC Advances</i> , 2014, 4, 56654-56657.	3.6	4
61	Detection and Identification of Reaction Intermediates in the Photorearrangement of Pyridazine N-Oxide: Discrepancies between Experiment and Theory. <i>Journal of Organic Chemistry</i> , 2019, 84, 10032-10039.	3.2	4
62	Time-Resolved Infrared Study on the Photochemistry of O-Fluoroformyl- and O-Chloroformyl-9-fluorenone Oxime: The Reactivity of the Fluoroformyl Radical in Acetonitrile Solution. <i>Journal of Organic Chemistry</i> , 2006, 71, 2135-2138.	3.2	3
63	Tetradecahydroadamantane-1,3,5,7-Di- and Tetracations and Their Helium and Hydride Inclusion Complexes: Spherical Aromaticity and Evidence for a Bonding Interaction between Carbon and Helium. <i>Journal of Physical Chemistry A</i> , 2008, 112, 9906-9910.	2.5	3
64	The Rearrangement of the Tropyloxy Radical: Sherlock Holmes™ Most Recent Case. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 6934-6935.	13.8	3
65	1,4-Naphthoquinonediazide-2-carboxylic acid: a diazo compound with a long-lived triplet excited state. <i>Journal of Physical Organic Chemistry</i> , 2001, 14, 197-200.	1.9	2
66	Sulfene-Pyridine Adducts: Lewis Acid/Base Complexes, Ylides, Pyridinium Sulfinates Zwitterions, or Carbene Ylide/SO ₂ Complexes?. <i>European Journal of Organic Chemistry</i> , 2003, 2003, 3868-3874.	2.4	2
67	New reactive intermediates in organic chemistry. <i>Beilstein Journal of Organic Chemistry</i> , 2013, 9, 613-614.	2.2	2
68	Fragmentation of a dioxolanyl radical via nonstatistical reaction dynamics: characterization of the vinyloxy radical by ns time-resolved laser flash photolysis. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 19819-19828.	2.8	2
69	Attempted characterisation of phenanthrene-4,5-quinone and electrochemical synthesis of violanthrone-16,17-quinone. How does the stability of bay quinones correlate with structural and electronic parameters?. <i>RSC Advances</i> , 2020, 10, 38004-38012.	3.6	2
70	Thermochemistry and photochemistry of spiroketals derived from indan-2-one: Stepwise processes versus coarctate fragmentations. <i>Beilstein Journal of Organic Chemistry</i> , 2013, 9, 1668-1676.	2.2	1
71	Interaction of Triplet Excited States of Ketones with Nucleophilic Groups: (i, i*) and (n, i*) versus (i f*, i f*) States. Substituent-Induced State Switching in Triplet Ketones. <i>Australian Journal of Chemistry</i> , 2017, 70, 387.	0.9	1
72	Calculations on the Ruthenium-Catalyzed Diene and Dienyne Ring-Closing Metathesis Reactions in the Synthesis of Taxol Derivatives. <i>Journal of Organic Chemistry</i> , 2021, 86, 13056-13070.	3.2	1

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73	Organische Chemie 2000. Nachrichten Aus Der Chemie, 2001, 49, 296-320.	0.0	0
74	Organische Chemie 2005. Nachrichten Aus Der Chemie, 2006, 54, 241-264.	0.0	0
75	Intramolecular addition of oxyradicals to benzene rings: A DFT study. Collection of Czechoslovak Chemical Communications, 2011, 76, 947-956.	1.0	0
76	Dimethylberyllium + CO ₂ → Fire! A DFT and <i>ab Initio</i> Study into the Photon Emission Observed in a Gas Phase Carbon Dioxide Activation Reaction. Organometallics, 2018, 37, 2519-2530.	2.3	0