Gernot Friedrichs

List of Publications by Year
in descending order

65	1,462	331670	361022
papers	citations	21 h-index	35 g-index

68	68	68	1851
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of 1- and 2-methylallyl + O₂ reaction, investigated by photoionisation using synchrotron radiation. Physical Chemistry Chemical Physics, 2021, 23, 1539-1549.	2.8	9
2	Ab Initio and RRKM/Master Equation Analysis of the Photolysis and Thermal Unimolecular Decomposition of Bromoacetaldehyde. Journal of Physical Chemistry A, 2021, 125, 8282-8293.	2.5	1
3	The story of NCN as a key species in prompt-NO formation. Progress in Energy and Combustion Science, 2021, 87, 100940.	31.2	14
4	Quantitative and Sensitive Mid-Infrared Frequency Modulation Detection of HCN behind Shock Waves. Fuels, 2021, 2, 437-447.	2.7	7
5	The Reaction NCN + H2: Quantum Chemical Calculations, Role of1NCN Chemistry, and3NCN Absorption Cross Section. Journal of Physical Chemistry A, 2020, 124, 4632-4645.	2.5	7
6	Vibrational sum-frequency generation study of molecular structure, sterical constraints and nonlinear optical switching contrast of mixed alkyl-azobenzene self-assembled monolayers. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1427-1452.	2.8	5
7	Congratulations to Friedrich Temps: a multifaceted career in Physical Chemistry. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1223-1232.	2.8	0
8	Towards a Transferable Standard for Nitrous Oxide Isotopomer Ratio. , 2020, , .		0
9	The first water-based synthesis of Ce(iv)-MOFs with saturated chiral and achiral C4-dicarboxylate linkers. Dalton Transactions, 2019, 48, 8433-8441.	3.3	24
10	Single-tone mid-infrared frequency modulation spectroscopy for sensitive detection of transient species. Optics Express, 2019, 27, 26499.	3.4	11
11	Kinetics in the real world: linking molecules, processes, and systems. Physical Chemistry Chemical Physics, 2018, 20, 10561-10568.	2.8	5
12	Kinetics of the a-C₃H₅+ O₂reaction, investigated by photoionization using synchrotron radiation. Physical Chemistry Chemical Physics, 2018, 20, 10721-10731.	2.8	28
13	Luminescence tuning and single-phase white light emitters based on rare earth ions doped into a bismuth coordination network. Journal of Materials Chemistry C, 2018, 6, 12668-12678.	5.5	17
14	Organic Matter in the Surface Microlayer: Insights From a Wind Wave Channel Experiment. Frontiers in Marine Science, 2018, 5, .	2.5	22
15	Doppler-limited high-resolution spectrum and VPT2 assisted assignment of the C-H stretch of CH2Br2. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 181, 180-191.	3.9	6
16	Quantitative Mid-Infrared Cavity Ringdown Detection of Methyl Iodide for Monitoring Applications. Analytical Chemistry, 2017, 89, 8445-8452.	6.5	11
17	Quantitative HNO detection behind shock waves. Proceedings of the Combustion Institute, 2017, 36, 607-615.	3.9	5
18	The Ocean's Vital Skin: Toward an Integrated Understanding of the Sea Surface Microlayer. Frontiers in Marine Science, 2017, 4, .	2.5	137

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19	Saturation dynamics and working limits of saturated absorption cavity ringdown spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 22978-22989.	2.8	18
20	Shock Tube Measurements of the Rate Constant of the Reaction NCN + O₂. International Journal of Chemical Kinetics, 2015, 47, 586-595.	1.6	9
21	Glyoxal Oxidation Mechanism: Implications for the Reactions HCO + O2and OCHCHO + HO2. Journal of Physical Chemistry A, 2015, 119, 7305-7315.	2.5	24
22	The rate constant of the reaction NCN + H₂ and its role in NCN and NO modeling in low pressure CH₄/O₂/N₂-flames. Physical Chemistry Chemical Physics, 2015, 17, 15876-15886.	2.8	12
23	Marine Applications for a Promising New Spectroscopic Method. Eos, 2015, 96, .	0.1	0
24	Fluorescence-Based Quasicontinuous and In Situ Monitoring of Biofilm Formation Dynamics in Natural Marine Environments. Applied and Environmental Microbiology, 2014, 80, 3721-3728.	3.1	26
25	Direct measurements of the total rate constant of the reaction NCN + H and implications for the product branching ratio and the enthalpy of formation of NCN. Physical Chemistry Chemical Physics, 2014, 16, 11647-11657.	2.8	17
26	Bismuth Triâ€•and Tetraarylcarboxylates: Crystal Structures, In Situ Xâ€•ray Diffraction, Intermediates and Luminescence. Chemistry - A European Journal, 2013, 19, 12537-12546.	3.3	70
27	Quantitative Time-Resolved Vibrational Sum Frequency Generation Spectroscopy as a Tool for Thin Film Kinetic Studies: New Insights into Oleic Acid Monolayer Oxidation. Journal of Physical Chemistry A, 2013, 117, 7863-7875.	2.5	15
28	A consistent model for the thermal decomposition of NCN₃ and the singletâ€“ triplet relaxation of NCN. International Journal of Chemical Kinetics, 2013, 45, 30-40.	1.6	8
29	Seasonal signatures in SFG vibrational spectra of the sea surface nanolayer at Boknis Eck Time Series Station (SW Baltic Sea). Biogeosciences, 2013, 10, 5325-5334.	3.3	15
30	Using cavity ringdown spectroscopy for continuous monitoring of Î´13C(CO2) and Æ'CO2in the surface ocean. Limnology and Oceanography: Methods, 2012, 10, 752-766.	2.0	32
31	Direct measurements of the high temperature rate constants of the reactions NCN + O, NCN + NCN, and NCN + M. Physical Chemistry Chemical Physics, 2012, 14, 1030-1037.	2.8	22
32	Design and field application of a UV-LED based optical fiber biofilm sensor. Biosensors and Bioelectronics, 2012, 33, 172-178.	10.1	41
33	Direct Measurements of the Rate Constants of the Reactions NCN + NO and NCN + NO₂ Behind Shock Waves. Journal of Physical Chemistry A, 2011, 115, 14382-14390.	2.5	14
34	Revealing structural properties of the marine nanolayer from vibrational sum frequency generation spectra. Journal of Geophysical Research, 2011, 116, .	3.3	24
35	Dimerization of HNO in Aqueous Solution: An Interplay of Solvation Effects, Fast Acidâ€"Base Equilibria, and Intramolecular Hydrogen Bonding?. Journal of the American Chemical Society, 2011, 133, 17912-17922.	13.7	41
36	Chemie Ã¼ber denâ€‰Wolken â€¦â€‰undâ€‰darunter. Herausgegeben von Reinhard Zellner. Angewandte Chemie, 2011, 123, 10196-10197.	2.0	1

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37	Toward continuous monitoring of seawater13CO2/12CO2isotope ratio andpCO2: Performance of cavity ringdown spectroscopy and gas matrix effects. Limnology and Oceanography: Methods, 2010, 8, 539-551.	2.0	42
38	Vibrational sum-frequency generation as a probe for composition, chemical reactivity, and film formation dynamics of the sea surface nanolayer. Limnology and Oceanography: Methods, 2010, 8, 216-228.	2.0	18
39	A precise high-resolution near infrared continuous wave cavity ringdown spectrometer using a Fourier transform based wavelength calibration. Review of Scientific Instruments, 2010, 81, 053109.	1.3	4
40	Thermal Decomposition of NCN3as a High-Temperature NCN Radical Source: Singletâ^'Triplet Relaxation and Absorption Cross Section of NCN(3Ĩ£)â€. Journal of Physical Chemistry A, 2010, 114, 12963-12971.	2.5	25
41	The Products of the Reactions of o-Benzyne with Ethene, Propene, and Acetylene: A Combined Mass Spectrometric and Quantum Chemical Study. Zeitschrift Fur Physikalische Chemie, 2009, 223, 387-407.	2.8	19
42	HCO formation in the thermal unimolecular decomposition of glyoxal: rotational and weak collision effects. Physical Chemistry Chemical Physics, 2008, 10, 6520.	2.8	20
43	Câ^'H Bond Activation of Coordinated Pyridine: Ortho-Pyridyl-Ditechnetiumhydridocarbonyl Metal Cyclus. Crystal Structure and Dynamic Behavior in Solution. Inorganic Chemistry, 2008, 47, 10177-10182.	4.0	10
44	Time-Resolved Cavity Ringdown Measurements and Kinetic Modeling of the Pressure Dependences of the Recombination Reactions of SiH₂ with the Alkenes C₂H₄, C₃H₆, and t-C₄H₈. Journal of Physical Chemistry A, 2008, 112, 5636-5646.	2.5	9
45	Sensitive Absorption Methods for Quantitative Gas Phase Kinetic Measurements. Part 1: Frequency Modulation Spectroscopy. Zeitschrift Fur Physikalische Chemie, 2008, 222, 1-30.	2.8	22
46	Sensitive Absorption Methods for Quantitative Gas Phase Kinetic Measurements. Part 2: Cavity Ringdown Spectroscopy. Zeitschrift Fur Physikalische Chemie, 2008, 222, 31-61.	2.8	18
47	Wide temperature range (T = 295 K and 770â€“1305 K) study of the kinetics of the reactions HCO + NO and HCO + NO2 using frequency modulation spectroscopy. Physical Chemistry Chemical Physics, 2007, 9, 4177.	2.8	18
48	Kinetics of the Reaction C2H5 + HO2 by Time-Resolved Mass Spectrometry. Journal of Physical Chemistry A, 2006, 110, 3330-3337.	2.5	37
49	Room Temperature and Shock Tube Study of the Reaction HCO + O2 Using the Photolysis of Glyoxal as an Efficient HCO Source. Journal of Physical Chemistry A, 2006, 110, 160-170.	2.5	43
50	Validation of the Extended Simultaneous Kinetics and Ringdown Model by Measurements of the Reaction NH2+ NO. Journal of Physical Chemistry A, 2005, 109, 4785-4795.	2.5	15
51	Validation of a thermal decomposition mechanism of formaldehyde by detection of CH2 O and HCO behind shock waves. International Journal of Chemical Kinetics, 2004, 36, 157-169.	1.6	52
52	The Gas-Phase Oxidation of Silyl Radicals by Molecular Oxygen: Kinetics and Mechanisms. ChemInform, 2004, 35, no.	0.0	0
53	The Bunsen gas solubility coefficient of ethylene as a function of temperature and salinity and its importance for nitrogen fixation assays. Limnology and Oceanography: Methods, 2004, 2, 282-288.	2.0	94
54	A shock tube study of the reaction NH2 + CH4 ? NH3 + CH3 and comparison with transition state theory. International Journal of Chemical Kinetics, 2003, 35, 304-309.	1.6	23

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55	An extended simultaneous kinetics and ringdown model: Determination of the rate constant for the reaction SiH2â€‰+â€‰O2. Physical Chemistry Chemical Physics, 2003, 5, 4622-4630.	2.8	13
56	Quantitative detection of HCO behind shock waves: The thermal decomposition of HCO. Physical Chemistry Chemical Physics, 2002, 4, 5778-5788.	2.8	107
57	Direct measurements of the reaction H + CH2O ? H2 + HCO behind shock waves by means of Vis-UV detection of formaldehyde. International Journal of Chemical Kinetics, 2002, 34, 374-386.	1.6	45
58	Investigation of the Thermal Decomposition of Ketene and of the Reaction CH2 + H2 â‡” CH3 + H. Zeitschrift Fur Physikalische Chemie, 2001, 215, .	2.8	15
59	Nonequilibrium Excitation of C2 Radicals during the Thermal Decomposition of C3 O2 behind Shock Waves. Zeitschrift Fur Physikalische Chemie, 2001, 215, .	2.8	2
60	Direct Measurements of the Reaction NH2 + H2 â†’ NH3 + H at Temperatures from 1360 to 2130 K. Zeitschrift Fur Physikalische Chemie, 2000, 214, .	2.8	11
61	Quantitative FM Spectroscopy at High Temperatures: The Detection of 1CH2 behind Shock Waves. Zeitschrift Fur Physikalische Chemie, 2000, 214, .	2.8	11
62	A kinetic study of the reaction of NH2 with NO in the temperature range 1400â€“2800 K. Physical Chemistry Chemical Physics, 1999, 1, 427.	2.8	24
63	The Thermal Decomposition of NH₂ and NH Radicals. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1998, 102, 1474-1485.	0.9	23
64	Investigation of the Thermal Decay of Carbon Suboxide. Zeitschrift Fur Physikalische Chemie, 1998, 203, 1-14.	2.8	31
65	The Gas Phase Oxidation of Silyl Radicals by Molecular Oxygen: Kinetics and Mechanisms. , 0, , 44-57.		4