Sebastian Peukert

List of Publications by Year
in descending order

38 papers	485 citations	623188 14 h-index	752256 20 g-index
38 all docs	38 docs citations	38 times ranked	452 citing authors

#	Article	IF	Citations
1	Experiment and theory on methylformate and methylacetate kinetics at high temperatures: Rate constants for H-atom abstraction and thermal decomposition. Combustion and Flame, 2012, 159, 2312-2323.	2.8	45
2	Determination of rate parameters of cyclohexane and 1-hexene decomposition reactions. Energy, 2012, 43, 85-93.	4.5	32
3	High Temperature Shock Tube and Theoretical Studies on the Thermal Decomposition of Dimethyl Carbonate and Its Bimolecular Reactions with H and D-Atoms. Journal of Physical Chemistry A, 2013, 117, 3718-3728.	1.1	25
4	Direct Measurements of Rate Constants for the Reactions of CH₃ Radicals with C₂H₆, C₂H₄, and C₂H₂ at High Temperatures. Journal of Physical Chemistry A, 2013, 117, 10228-10238.	1.1	23
5	Direct Measurement of High-Temperature Rate Constants of the Thermal Decomposition of Dimethoxymethane, a Shock Tube and Modeling Study. Journal of Physical Chemistry A, 2018, 122, 7559-7571.	1.1	21
6	High Temperature Shock Tube Studies on the Thermal Decomposition of O₃ and the Reaction of Dimethyl Carbonate with O-Atoms. Journal of Physical Chemistry A, 2013, 117, 3729-3738.	1.1	20
7	Mass Spectrometric Study on the Combustion of Tetramethylsilane and the Formation of Silicon Oxide Clusters in Premixed Laminar Low-Pressure Synthesis Flames. Journal of Physical Chemistry A, 2018, 122, 7131-7141.	1.1	20
8	Theoretical, Experimental, and Modeling Study of the Reaction of Hydrogen Atoms with 1- and 2-Pentene. Journal of Physical Chemistry A, 2019, 123, 8506-8526.	1.1	19
9	Formation of H-atoms in the pyrolysis of cyclohexane and 1-hexene: A shock tube and modeling study. International Journal of Chemical Kinetics, 2011, 43, 107-119.	1.0	18
10	High temperature rate constants for H/D+methyl formate and methyl acetate. Proceedings of the Combustion Institute, 2013, 34, 463-471.	2.4	16
11	High temperature rate constants for H/D + n -C 4 H 10 and i -C 4 H 10. Proceedings of the Combustion Institute, 2015, 35, 171-179.	2.4	16
12	Highâ€Temperature Rate Constants for H + Tetramethylsilane and H + Silane and Implications about Structureâ€"Activity Relationships for Silanes. International Journal of Chemical Kinetics, 2018, 50, 57-72.	1.0	16
13	Response surface and group additivity methodology for estimation of thermodynamic properties of organosilanes. International Journal of Chemical Kinetics, 2018, 50, 681-690.	1.0	16
14	Development and evaluation of a chemical kinetics reaction mechanism for tetramethylsilane-doped flames. Chemical Engineering Science, 2019, 209, 115209.	1.9	16
15	Direct measurements of channel specific rate constants in OHâ€¯+â€¯C3H8 illuminates prompt dissociations of propyl radicals. Proceedings of the Combustion Institute, 2019, 37, 231-238.	2.4	16
16	A Shock Tube and Modeling Study about Anisole Pyrolysis Using Time-Resolved CO Absorption Measurements. International Journal of Chemical Kinetics, 2017, 49, 656-667.	1.0	15
17	Shock-tube study of the decomposition of tetramethylsilane using gas chromatography and high-repetition-rate time-of-flight mass spectrometry. Physical Chemistry Chemical Physics, 2018, 20, 10686-10696.	1.3	13
18	High-Temperature Shock Tube and Modeling Studies on the Reactions of Methanol with D-Atoms and CH₃-Radicals. Journal of Physical Chemistry A, 2013, 117, 10186-10195.	1.1	12

#	Article	IF	Citations
19	The influence of hydrogen and methane on the growth of carbon particles during acetylene pyrolysis in a burnt-gas flow reactor. Proceedings of the Combustion Institute, 2019, 37, 1125-1132.	2.4	12
20	High-Temperature Unimolecular Decomposition of Diethyl Ether: Shock-Tube and Theory Studies. Journal of Physical Chemistry A, 2019, 123, 6813-6827.	1.1	12
21	Multi-line SiO fluorescence imaging in the flame synthesis of silica nanoparticles from SiCl4. Combustion and Flame, 2021, 224, 260-272.	2.8	12
22	Formation of H-atoms in the Pyrolysis of 1,3-butadiene and 2-butyne: A Shock Tube and Modelling Study. Zeitschrift Fur Physikalische Chemie, 2009, 223, 427-446.	1.4	10
23	High-temperature gas-phase kinetics of the thermal decomposition of tetramethoxysilane. Proceedings of the Combustion Institute, 2019, 37, 1133-1141.	2.4	10
24	Pyrolysis of diethyl carbonate: Shock-tube and flow-reactor measurements and modeling. Proceedings of the Combustion Institute, 2021, 38, 987-996.	2.4	10
25	The reaction of cyclohexane with Hâ€atoms: A shock tube and modeling study. International Journal of Chemical Kinetics, 2012, 44, 130-146.	1.0	8
26	High-Temperature Rate Constants for the Reaction of Hydrogen Atoms with Tetramethoxysilane and Reactivity Analogies between Silanes and Oxygenated Hydrocarbons. Journal of Physical Chemistry A, 2018, 122, 5289-5298.	1.1	8
27	A group additivity methodology for predicting the thermochemistry of oxygenâ€containing organosilanes. International Journal of Chemical Kinetics, 2020, 52, 918-932.	1.0	7
28	Thermochemistry of organosilane compounds and organosilyl radicals. Proceedings of the Combustion Institute, 2021, 38, 1259-1267.	2.4	6
29	Shock-tube study of the decomposition of octamethylcyclotetrasiloxane and hexamethylcyclotrisiloxane. Zeitschrift Fur Physikalische Chemie, 2020, 234, 1395-1426.	1.4	6
30	Kinetics of the Thermal Decomposition of Ethylsilane: Shock-Tube and Modeling Study. Energy & Fuels, 2021, 35, 3266-3282.	2.5	5
31	Shock-tube study of the influence of oxygenated additives on benzene pyrolysis: Measurement of optical densities, soot inception times and comparison with simulations. Combustion and Flame, 2022, 243, 111985.	2.8	5
32	Excited State Intramolecular Proton Transfer of 2,5-bis(5-ethyl-2-benzoxazolyl)-hydroquinone and its OH/OD-isotopomers studied in supersonic jets. Chemical Physics Letters, 2015, 641, 153-157.	1.2	3
33	Supersonic jet spectroscopy of parent hemiporphycene: Structural assignment and vibrational analysis for S0 and S1 electronic states. Journal of Chemical Physics, 2018, 149, 134307.	1.2	3
34	Shock tube study of the pyrolysis kinetics of Di- and trimethoxy methane. Combustion and Flame, 2022, 242, 112186.	2.8	3
35	Supersonic Jet Spectroscopy and Density Functional Theory Study of Isomeric Diazines: 1,4- and 1,8-Diazatriphenylene. Why Do They Differ So Deeply?. Journal of Physical Chemistry A, 2016, 120, 7817-7827.	1.1	2
36	Direct rate-constant measurements and theoretical insight into the mechanism of the reactions Hâ€‰+â€‰hexamethyldisiloxane and Hâ€‰+â€‰tetramethyldisiloxane*. Molecular Physics, 0, , e1963871.	0.8	2

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37	Thermochemistry of Oxygen-Containing Organosilane Radicals and Uncertainty Estimations of Organosilane Group-Additivity Values. Journal of Physical Chemistry A, 2021, 125, 8699-8711.	1.1	2
38	Matrix isolation studies of vibrational structure of hemiporphycene. Journal of Molecular Structure, 2020, 1218, 128497.	1.8	0