Robert S Tranter

List of Publications by Year
in descending order

53	1,260	257101 24	377514 34
papers	citations	h-index	g-index

54	54	54	780
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design of a high-pressure single pulse shock tube for chemical kinetic investigations. Review of Scientific Instruments, 2001, 72, 3046-3054.	0.6	76
2	Calibration of reaction temperatures in a very high pressure shock tube using chemical thermometers. International Journal of Chemical Kinetics, 2001, 33, 722-731.	1.0	67
3	Experimental and Theoretical Investigation of the Self-Reaction of Phenyl Radicals. Journal of Physical Chemistry A, 2010, 114, 8240-8261.	1.1	63
4	Thermal Dissociation and Roaming Isomerization of Nitromethane: Experiment and Theory. Journal of Physical Chemistry A, 2015, 119, 7872-7893.	1.1	59
5	2D-imaging of sampling-probe perturbations in laminar premixed flames using Kr X-ray fluorescence. Combustion and Flame, 2017, 181, 214-224.	2.8	51
6	Probing Combustion Chemistry in a Miniature Shock Tube with Synchrotron VUV Photo Ionization Mass Spectrometry. Analytical Chemistry, 2015, 87, 2345-2352.	3.2	50
7	Shock tube/time-of-flight mass spectrometer for high temperature kinetic studies. Review of Scientific Instruments, 2007, 78, 034101.	0.6	44
8	A diaphragmless shock tube for high temperature kinetic studies. Review of Scientific Instruments, 2008, 79, 094103.	0.6	42
9	A miniature high repetition rate shock tube. Review of Scientific Instruments, 2013, 84, 094102.	0.6	38
10	A SHOCK-TUBE STUDY OF THE HIGH-PRESSURE THERMAL DECOMPOSITION OF BENZENE. Combustion Science and Technology, 2006, 178, 285-305.	1.2	37
11	Thermodynamic functions for the cyclopentadienyl radical: The effect of Jahn-Teller distortion. International Journal of Chemical Kinetics, 2001, 33, 834-845.	1.0	36
12	The Dissociation of Diacetyl: A Shock Tube and Theoretical Study. Journal of Physical Chemistry A, 2009, 113, 8318-8326.	1.1	34
13	Decomposition and Vibrational Relaxation in CH₃I and Self-Reaction of CH₃ Radicals. Journal of Physical Chemistry A, 2009, 113, 8307-8317.	1.1	33
14	Single Pulse Shock Tube Study of Allyl Radical Recombination. Journal of Physical Chemistry A, 2013, 117, 4762-4776.	1.1	33
15	High pressure, high temperature shock tube studies of ethane pyrolysis and oxidation. Physical Chemistry Chemical Physics, 2002, 4, 2001-2010.	1.3	32
16	Isomeric Product Distributions from the Self-Reaction of Propargyl Radicals. Journal of Physical Chemistry A, 2005, 109, 6056-6065.	1.1	31
17	A shock tube, laser-schlieren study of the pyrolysis of isobutene: Relaxation, incubation, and dissociation rates. International Journal of Chemical Kinetics, 2003, 35, 381-390.	1.0	29
18	Shock Tube Investigation of CH₃ + CH₃OCH₃. Journal of Physical Chemistry A, 2012, 116, 7287-7292.	1.1	29

#	Article	IF	Citations
19	Rate constants for the reactions of H atoms and OH radicals with ethers at 753 K. Physical Chemistry Chemical Physics, 2001, 3, 4722-4732.	1.3	28
20	Dissociation of C3H3I and rates for C3H3 combination at high temperatures. Proceedings of the Combustion Institute, 2011, 33, 259-265.	2.4	26
21	Recombination of Allyl Radicals in the High Temperature Fall-Off Regime. Journal of Physical Chemistry A, 2013, 117, 4750-4761.	1.1	26
22	Dissociation, Relaxation, and Incubation in the Pyrolysis of Neopentane:Â Heat of Formation fortert-Butyl Radical. Journal of Physical Chemistry A, 2003, 107, 1532-1539.	1.1	25
23	A Shock-Tube, Laser-Schlieren Study of the Dissociation of 1,1,1-Trifluoroethane:Â An Intrinsic Non-RRKM Process. Journal of Physical Chemistry A, 2004, 108, 2443-2450.	1.1	24
24	Ethane oxidation and pyrolysis from 5 bar to 1000 bar: Experiments and simulation. International Journal of Chemical Kinetics, 2005, 37, 306-331.	1.0	24
25	An Optimized Semidetailed Submechanism of Benzene Formation from Propargyl Recombination. Journal of Physical Chemistry A, 2006, 110, 2165-2175.	1.1	24
26	Highâ€temperature dissociation of ethyl radicals and ethyl iodide. International Journal of Chemical Kinetics, 2012, 44, 433-443.	1.0	24
27	Dissociation of dimethyl ether at high temperatures. Proceedings of the Combustion Institute, 2013, 34, 591-598.	2.4	23
28	An Experimental and Theoretical Study of the Thermal Decomposition of C₄H₆ Isomers. Journal of Physical Chemistry A, 2017, 121, 3827-3850.	1.1	20
29	Note: An improved driver section for a diaphragmless shock tube. Review of Scientific Instruments, 2015, 86, 016117.	0.6	17
30	Recombination and dissociation of 2-methyl allyl radicals: Experiment and theory. Proceedings of the Combustion Institute, 2017, 36, 211-218.	2.4	17
31	Measuring flow profiles in heated miniature reactors with X-ray fluorescence spectroscopy. Proceedings of the Combustion Institute, 2017, 36, 4603-4610.	2.4	17
32	High temperature pyrolysis of 2-methyl furan. Physical Chemistry Chemical Physics, 2018, 20, 10826-10837.	1.3	17
33	Dissociation of 1,1,1-Trifluoroethane Behind Reflected Shock Waves:Â Shock Tube/Time-of-Flight Mass Spectrometry Experiments. Journal of Physical Chemistry A, 2007, 111, 1585-1592.	1.1	16
34	A shock tube and theoretical study on the pyrolysis of 1,4-dioxane. Physical Chemistry Chemical Physics, 2011, 13, 3686-3700.	1.3	16
35	An experimental and theoretical study of the high temperature reactions of the four butyl radical isomers. Physical Chemistry Chemical Physics, 2020, 22, 18304-18319.	1.3	16
36	An experimental and theoretical high temperature kinetic study of the thermal unimolecular dissociation of fluoroethane. Physical Chemistry Chemical Physics, 2008, 10, 6266.	1.3	13

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37	A shock tube laser schlieren study of methyl acetate dissociation in the fall-off regime. Physical Chemistry Chemical Physics, 2014, 16, 7241.	1.3	13
38	Shock tube study of dissociation and relaxation in 1,1-difluoroethane and vinyl fluoride. Physical Chemistry Chemical Physics, 2007, 9, 4164.	1.3	11
39	Direct measurement of the reaction pair C6H5NOâ†'C6H5+NO by a combined shock tube and flow reactor approach. Proceedings of the Combustion Institute, 1996, 26, 575-582.	0.3	10
40	A shock tube laser schlieren study of cyclopentane pyrolysis. Proceedings of the Combustion Institute, 2017, 36, 273-280.	2.4	9
41	Thermal dissociation of alkyl nitrites and recombination of alkyl radicals. Proceedings of the Combustion Institute, 2019, 37, 703-710.	2.4	9
42	Dissociation of ortho -benzyne radicals in the high temperature fall-off regime. Proceedings of the Combustion Institute, 2015, 35, 145-152.	2.4	8
43	Solenoid actuated driver valve for high repetition rate shock tubes. Review of Scientific Instruments, 2020, 91, 056101.	0.6	8
44	Reactions of propyl radicals: A shock tubeâ€"VUV photoionization mass spectrometry study. Combustion and Flame, 2021, 224, 14-23.	2.8	8
45	Initiation reactions in the high temperature decomposition of styrene. Physical Chemistry Chemical Physics, 2021, 23, 18432-18448.	1.3	7
46	A modular, multi-diagnostic, automated shock tube for gas-phase chemistry. Review of Scientific Instruments, 2019, 90, 064104.	0.6	6
47	In situ temperature measurements in sooting methane/air flames using synchrotron x-ray fluorescence of seeded krypton atoms. Science Advances, 2022, 8, eabm7947.	4.7	5
48	Ring opening in cycloheptane and dissociation of 1-heptene at high temperatures. Proceedings of the Combustion Institute, 2021, 38, 929-937.	2.4	3
49	High pressure, high flow rate batch mixing apparatus for high throughput experiments. Review of Scientific Instruments, 2021, 92, 114104.	0.6	3
50	Speciation in Shock Tubes. Green Energy and Technology, 2013, , 143-161.	0.4	2
51	Thermal dissociation of ethylene glycol vinyl ether. Physical Chemistry Chemical Physics, 2011, 13, 21288.	1.3	1
52	Joe V. Michael Memorial Issue. International Journal of Chemical Kinetics, 2021, 53, 687-687.	1.0	0
53	Shock Tube Studies of Combustion Relevant Elementary Chemical Reactions and Submechanisms. Green Energy and Technology, 2013, , 629-652.	0.4	0