Robert S Tranter

List of Publications by Year
in descending order

53 papers	1,260 citations	257101 24 h-index	377514 34 g-index
54 all docs	54 docs citations	54 times ranked	780 citing authors

#	Article	IF	Citations
1	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
2	Reactions of propyl radicals: A shock tubeâ€“VUV photoionization mass spectrometry study. Combustion and Flame, 2021, 224, 14-23.	2.8	8
3	Ring opening in cycloheptane and dissociation of 1-heptene at high temperatures. Proceedings of the Combustion Institute, 2021, 38, 929-937.	2.4	3
4	Joe V. Michael Memorial Issue. International Journal of Chemical Kinetics, 2021, 53, 687-687.	1.0	0
5	Initiation reactions in the high temperature decomposition of styrene. Physical Chemistry Chemical Physics, 2021, 23, 18432-18448.	1.3	7
6	High pressure, high flow rate batch mixing apparatus for high throughput experiments. Review of Scientific Instruments, 2021, 92, 114104.	0.6	3
7	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
8	Solenoid actuated driver valve for high repetition rate shock tubes. Review of Scientific Instruments, 2020, 91, 056101.	0.6	8
9	Thermal dissociation of alkyl nitrites and recombination of alkyl radicals. Proceedings of the Combustion Institute, 2019, 37, 703-710.	2.4	9
10	A modular, multi-diagnostic, automated shock tube for gas-phase chemistry. Review of Scientific Instruments, 2019, 90, 064104.	0.6	6
11	High temperature pyrolysis of 2-methyl furan. Physical Chemistry Chemical Physics, 2018, 20, 10826-10837.	1.3	17
12	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
13	An Experimental and Theoretical Study of the Thermal Decomposition of C₄H₆ Isomers. Journal of Physical Chemistry A, 2017, 121, 3827-3850.	1.1	20
14	Recombination and dissociation of 2-methyl allyl radicals: Experiment and theory. Proceedings of the Combustion Institute, 2017, 36, 211-218.	2.4	17
15	A shock tube laser schlieren study of cyclopentane pyrolysis. Proceedings of the Combustion Institute, 2017, 36, 273-280.	2.4	9
16	Measuring flow profiles in heated miniature reactors with X-ray fluorescence spectroscopy. Proceedings of the Combustion Institute, 2017, 36, 4603-4610.	2.4	17
17	Dissociation of ortho -benzyne radicals in the high temperature fall-off regime. Proceedings of the Combustion Institute, 2015, 35, 145-152.	2.4	8
18	Probing Combustion Chemistry in a Miniature Shock Tube with Synchrotron VUV Photo Ionization Mass Spectrometry. Analytical Chemistry, 2015, 87, 2345-2352.	3.2	50

#	ARTICLE	IF	CITATIONS
19	Note: An improved driver section for a diaphragmless shock tube. Review of Scientific Instruments, 2015, 86, 016117.	0.6	17
20	Thermal Dissociation and Roaming Isomerization of Nitromethane: Experiment and Theory. Journal of Physical Chemistry A, 2015, 119, 7872-7893.	1.1	59
21	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
22	A miniature high repetition rate shock tube. Review of Scientific Instruments, 2013, 84, 094102.	0.6	38
23	Dissociation of dimethyl ether at high temperatures. Proceedings of the Combustion Institute, 2013, 34, 591-598.	2.4	23
24	Single Pulse Shock Tube Study of Allyl Radical Recombination. Journal of Physical Chemistry A, 2013, 117, 4762-4776.	1.1	33
25	Recombination of Allyl Radicals in the High Temperature Fall-Off Regime. Journal of Physical Chemistry A, 2013, 117, 4750-4761.	1.1	26
26	Speciation in Shock Tubes. Green Energy and Technology, 2013, , 143-161.	0.4	2
27	Shock Tube Studies of Combustion Relevant Elementary Chemical Reactions and Submechanisms. Green Energy and Technology, 2013, , 629-652.	0.4	0
28	Shock Tube Investigation of CH₃ + CH₃OCH₃. Journal of Physical Chemistry A, 2012, 116, 7287-7292.	1.1	29
29	Highâ€temperature dissociation of ethyl radicals and ethyl iodide. International Journal of Chemical Kinetics, 2012, 44, 433-443.	1.0	24
30	A shock tube and theoretical study on the pyrolysis of 1,4-dioxane. Physical Chemistry Chemical Physics, 2011, 13, 3686-3700.	1.3	16
31	Thermal dissociation of ethylene glycol vinyl ether. Physical Chemistry Chemical Physics, 2011, 13, 21288.	1.3	1
32	Dissociation of C3H3I and rates for C3H3 combination at high temperatures. Proceedings of the Combustion Institute, 2011, 33, 259-265.	2.4	26
33	Experimental and Theoretical Investigation of the Self-Reaction of Phenyl Radicals. Journal of Physical Chemistry A, 2010, 114, 8240-8261.	1.1	63
34	The Dissociation of Diacetyl: A Shock Tube and Theoretical Study. Journal of Physical Chemistry A, 2009, 113, 8318-8326.	1.1	34
35	Decomposition and Vibrational Relaxation in CH₃I and Self-Reaction of CH₃ Radicals. Journal of Physical Chemistry A, 2009, 113, 8307-8317.	1.1	33
36	A diaphragmless shock tube for high temperature kinetic studies. Review of Scientific Instruments, 2008, 79, 094103.	0.6	42

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37	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
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	Shock tube/time-of-flight mass spectrometer for high temperature kinetic studies. Review of Scientific Instruments, 2007, 78, 034101.	0.6	44
40	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
41	An Optimized Semidetailed Submechanism of Benzene Formation from Propargyl Recombination. Journal of Physical Chemistry A, 2006, 110, 2165-2175.	1.1	24
42	A SHOCK-TUBE STUDY OF THE HIGH-PRESSURE THERMAL DECOMPOSITION OF BENZENE. Combustion Science and Technology, 2006, 178, 285-305.	1.2	37
43	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
44	Isomeric Product Distributions from the Self-Reaction of Propargyl Radicals. Journal of Physical Chemistry A, 2005, 109, 6056-6065.	1.1	31
45	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
46	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
47	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
48	High pressure, high temperature shock tube studies of ethane pyrolysis and oxidation. Physical Chemistry Chemical Physics, 2002, 4, 2001-2010.	1.3	32
49	Design of a high-pressure single pulse shock tube for chemical kinetic investigations. Review of Scientific Instruments, 2001, 72, 3046-3054.	0.6	76
50	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
51	Thermodynamic functions for the cyclopentadienyl radical: The effect of Jahn-Teller distortion. International Journal of Chemical Kinetics, 2001, 33, 834-845.	1.0	36
52	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
53	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