

# Zhen-Yu Tian

## List of Publications by Year in descending order

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109  
papers

3,507  
citations

159585

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155660

55  
g-index

110  
all docs

110  
docs citations

110  
times ranked

2774  
citing authors

#	ARTICLE	IF	CITATIONS
1	An experimental and kinetic modeling study of premixed NH <sub>3</sub> /CH <sub>4</sub> /O <sub>2</sub> /Ar flames at low pressure. Combustion and Flame, 2009, 156, 1413-1426.	5.2	359
2	Catalytic oxidation of VOCs over mixed Co–Mn oxides. Applied Catalysis B: Environmental, 2012, 117-118, 125-134.	20.2	220
3	Identification of combustion intermediates in isomeric fuel-rich premixed butanol–oxygen flames at low pressure. Combustion and Flame, 2007, 148, 198-209.	5.2	189
4	Experimental Study of a Fuel-Rich Premixed Toluene Flame at Low Pressure. Energy & Fuels, 2009, 23, 1473-1485.	5.1	184
5	Synthesis of the Catalytically Active Mn <sub>3</sub> O <sub>4</sub> Spinel and Its Thermal Properties. Journal of Physical Chemistry C, 2013, 117, 6218-6224.	3.1	149
6	An experimental study of the premixed benzene/oxygen/argon flame with tunable synchrotron photoionization. Proceedings of the Combustion Institute, 2007, 31, 555-563.	3.9	131
7	An experimental and kinetic investigation of premixed furan/oxygen/argon flames. Combustion and Flame, 2011, 158, 756-773.	5.2	113
8	Structure–activity relation of spinel-type Co–Fe oxides for low-temperature CO oxidation. Catalysis Science and Technology, 2014, 4, 3359.	4.1	89
9	A comprehensive experimental study of low-pressure premixed C <sub>3</sub> -oxygenated hydrocarbon flames with tunable synchrotron photoionization. Combustion and Flame, 2008, 152, 336-359.	5.2	87
10	A detailed kinetic modeling study of toluene oxidation in a premixed laminar flame. Proceedings of the Combustion Institute, 2011, 33, 233-241.	3.9	79
11	An experimental and kinetic modeling study of a premixed nitromethane flame at low pressure. Proceedings of the Combustion Institute, 2009, 32, 311-318.	3.9	70
12	Innovative CVD synthesis of Cu <sub>2</sub> O catalysts for CO oxidation. Applied Catalysis B: Environmental, 2016, 186, 10-18.	20.2	67
13	Investigation of the rich premixed laminar acetylene/oxygen/argon flame: Comprehensive flame structure and special concerns of polyynes. Proceedings of the Combustion Institute, 2009, 32, 1293-1300.	3.9	66
14	In situ characterization of Cu–Co oxides for catalytic application. Faraday Discussions, 2015, 177, 249-262.	3.2	54
15	Catalytic oxidation of hydrocarbons over Co <sub>3</sub> O <sub>4</sub> catalyst prepared by CVD. Catalysis Communications, 2009, 11, 118-122.	3.3	53
16	An experimental study of low-pressure premixed pyrrole/oxygen/argon flames with tunable synchrotron photoionization. Combustion and Flame, 2007, 151, 347-365.	5.2	52
17	An experimental study of the rich premixed ethylbenzene flame at low pressure. Proceedings of the Combustion Institute, 2009, 32, 647-655.	3.9	51
18	Low-temperature deep oxidation of olefins and DME over cobalt ferrite. Proceedings of the Combustion Institute, 2015, 35, 2207-2214.	3.9	49

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19	Nickel and Nickel-Based Nanoalloy Thin Films from Alcohol-Assisted Chemical Vapor Deposition. Chemistry of Materials, 2010, 22, 92-100.	6.7	44
20	New insights in the low-temperature oxidation of acetylene. Proceedings of the Combustion Institute, 2017, 36, 355-363.	3.9	43
21	Particle size-band gap energy-catalytic properties relationship of PSE-CVD-derived Fe <sub>3</sub> O <sub>4</sub> thin films. Journal of the Taiwan Institute of Chemical Engineers, 2018, 93, 427-435.	5.3	42
22	Selective synthesis of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> thin films and effect of the deposition temperature and lattice oxygen on the catalytic combustion of propene. Journal of Materials Chemistry A, 2013, 1, 10495.	10.3	41
23	Effect of the pressure on the catalytic oxidation of volatile organic compounds over Ag/Al <sub>2</sub> O <sub>3</sub> catalyst. Applied Catalysis B: Environmental, 2009, 89, 659-664.	20.2	40
24	Structure sensitivity of propene oxidation over Co-Mn spinels. Proceedings of the Combustion Institute, 2013, 34, 2261-2268.	3.9	38
25	Combustion study of a surrogate jet fuel. Combustion and Flame, 2019, 202, 252-261.	5.2	37
26	The tunable VUV single-photon ionization mass spectrometry for the analysis of individual components in gasoline. International Journal of Mass Spectrometry, 2007, 263, 30-37.	1.5	36
27	Experimental and kinetic study on the low-temperature oxidation of pyridine as a representative of fuel-N compounds. Combustion and Flame, 2019, 202, 394-404.	5.2	35
28	Interstellar Enols Are Formed in Plasma Discharges of Alcohols. Astrophysical Journal, 2008, 676, 416-419.	4.5	32
29	The Effects of MTBE/Ethanol Additives on Toxic Species Concentration in Gasoline Flame. Energy & Fuels, 2009, 23, 3543-3548.	5.1	32
30	Controlled synthesis of Co <sub>3</sub> O <sub>4</sub> spinel with Co(acac) <sub>3</sub> as precursor. RSC Advances, 2012, 2, 10809.	3.6	32
31	DFT Study on CO Catalytic Oxidation Mechanism on the Defective Cu <sub>2</sub> O(111) Surface. Journal of Physical Chemistry C, 2018, 122, 16733-16740.	3.1	32
32	Identification of Combustion Intermediates in Low-Pressure Premixed Pyridine/Oxygen/Argon Flames. Journal of Physical Chemistry A, 2008, 112, 13549-13555.	2.5	31
33	Catalytic complete oxidation of acetylene and propene over clay versus cordierite honeycomb monoliths without and with chemical vapor deposited cobalt oxide. Chemical Engineering Journal, 2015, 262, 1252-1259.	12.7	31
34	Experimental and kinetic investigation of 1,2,4-trimethylbenzene oxidation at low temperature. Proceedings of the Combustion Institute, 2017, 36, 909-917.	3.9	31
35	Experimental and kinetic investigation of pyrolysis and oxidation of nitromethane. Combustion and Flame, 2019, 203, 247-254.	5.2	31
36	A lean methane premixed laminar flame doped with components of diesel fuel part III: Indane and comparison between n-butylbenzene, n-propylcyclohexane and indane. Combustion and Flame, 2010, 157, 1236-1260.	5.2	30

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37	Facile synthesis of catalytically active copper oxide from pulsed-spray evaporation CVD. Surface and Coatings Technology, 2013, 230, 33-38.	4.8	28
38	Stainless steel grid mesh-supported CVD made Co <sub>3</sub> O <sub>4</sub> thin films for catalytic oxidation of VOCs of olefins type at low temperature. Journal of Industrial and Engineering Chemistry, 2016, 35, 253-261.	5.8	28
39	CVD synthesis of Cu <sub>2</sub> O films for catalytic application. RSC Advances, 2015, 5, 42477-42481.	3.6	26
40	An Experimental Study of Rich Premixed Gasoline/O <sub>2</sub> /Ar Flame with Tunable Synchrotron Vacuum Ultraviolet Photoionization. Energy & Fuels, 2007, 21, 1931-1941.	5.1	25
41	A wide-range experimental and modeling study of oxidation and combustion of n-propylbenzene. Combustion and Flame, 2018, 191, 53-65.	5.2	25
42	Pulsed-spray evaporation CVD synthesis of hematite thin films for catalytic conversion of CO. Surface and Coatings Technology, 2013, 230, 59-65.	4.8	24
43	Mechanism of CO Oxidation on Cu <sub>2</sub> O (111) Surface: A DFT and Microkinetic Study. International Journal of Chemical Kinetics, 2018, 50, 507-514.	1.6	22
44	Study of Low-Pressure Premixed Dimethyl Ether/Hydrogen/Oxygen/Argon Laminar Flames with Photoionization Mass Spectrometry. Energy & Fuels, 2010, 24, 1628-1635.	5.1	21
45	CVD synthesis of Cu-doped cobalt spinel thin film catalysts for kinetic study of propene oxidation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 556, 195-200.	4.7	20
46	Pyrolysis study of iso-propylbenzene with photoionization and molecular beam mass spectrometry. Combustion and Flame, 2019, 209, 313-321.	5.2	20
47	Experiment study of oxygenates impact on n-heptane flames with tunable synchrotron vacuum UV photoionization. Fuel, 2009, 88, 2297-2302.	6.4	19
48	Investigation on the structure stability and catalytic activity of Cu–Co binary oxides. Proceedings of the Combustion Institute, 2017, 36, 4375-4382.	3.9	19
49	Oxidation chemistry of four C <sub>9</sub> H <sub>12</sub> isomeric transportation fuels: Experimental and modeling studies. Combustion and Flame, 2019, 205, 165-179.	5.2	19
50	An experimental and modeling study on the low temperature oxidation of surrogate for JP-8 part I: Neat 1,3,5-trimethylbenzene. Combustion and Flame, 2018, 192, 507-516.	5.2	18
51	Mechanistic study of the CO oxidation reaction on the CuO (111) surface during chemical looping combustion. Proceedings of the Combustion Institute, 2021, 38, 5289-5297.	3.9	18
52	Oxidative Dehydrogenation of Propane into Propene over Chromium Oxides. Industrial & Engineering Chemistry Research, 2022, 61, 4546-4560.	3.7	18
53	Role of copper grid mesh in the catalytic oxidation of CO over one-step synthesized Cu-Fe-Co ternary oxides thin film. Chinese Chemical Letters, 2020, 31, 1201-1206.	9.0	17
54	An experimental investigation of furfural oxidation and the development of a comprehensive combustion model. Combustion and Flame, 2021, 226, 200-210.	5.2	16

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55	Controlled synthesis of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> @Fe <sub>3</sub> O <sub>4</sub> composite catalysts for exhaust gas purification. Proceedings of the Combustion Institute, 2019, 37, 5445-5453.	3.9	15
56	A comparative study on the laminar C <sub>1</sub> –C <sub>4</sub> n-alkane/NH <sub>3</sub> premixed flame. Fuel, 2022, 324, 124732.	6.4	15
57	Study of combustion intermediates in fuel-rich methyl methacrylate flame with tunable synchrotron vacuum ultraviolet photoionization mass spectrometry. Rapid Communications in Mass Spectrometry, 2009, 23, 85-92.	1.5	14
58	Cobalt-iron oxides made by CVD for low temperature catalytic application. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1508-1513.	1.8	14
59	Low temperature plasma diagnostics with tunable synchrotron vacuum ultraviolet photoionization mass spectrometry. Review of Scientific Instruments, 2008, 79, 103504.	1.3	13
60	Online study on the co-pyrolysis of coal and corn with vacuum ultraviolet photoionization mass spectrometry. Bioresource Technology, 2017, 244, 125-131.	9.6	13
61	An experimental and modeling study on the low temperature oxidation of surrogate for JP-8 part II: Comparison between neat 1,3,5-trimethylbenzene and its mixture with n-decane. Combustion and Flame, 2018, 192, 517-529.	5.2	13
62	Experimental and theoretical study on acetone pyrolysis in a jet-stirred reactor. Fuel, 2018, 234, 1380-1387.	6.4	13
63	Pyrolysis study of a three-component surrogate jet fuel. Combustion and Flame, 2021, 226, 190-199.	5.2	13
64	Identification of intermediates in an n-heptane/oxygen/argon low-pressure premixed laminar flame using synchrotron radiation. Fuel, 2009, 88, 1752-1757.	6.4	12
65	Tailored synthesis of CoO <sub>x</sub> thin films for catalytic application. RSC Advances, 2015, 5, 97272-97278.	3.6	12
66	Combustion characteristics of well-dispersed boron submicroparticles and plasma effect. Combustion and Flame, 2018, 188, 94-103.	5.2	12
67	An efficient and innovative catalytic reactor for VOCs emission control. Science Bulletin, 2019, 64, 625-633.	9.0	12
68	Study on combustion of gasoline/MTBE in laminar flame with synchrotron radiation. Chemosphere, 2007, 67, 2065-2071.	8.2	11
69	Towards biofuel combustion with an easily extruded clay as a natural catalyst. Applied Energy, 2013, 107, 149-156.	10.1	11
70	Cu-Promoted Cobalt Oxide Film Catalyst for Efficient Gas Emissions Abatement. Journal of Thermal Science, 2019, 28, 225-231.	1.9	11
71	A detailed kinetic study on oxidation of benzyl alcohol. Combustion and Flame, 2019, 207, 10-19.	5.2	11
72	Pyrolysis investigation of n-propylamine with synchrotron photoionization and molecular-beam mass spectrometry. Combustion and Flame, 2021, 232, 111511.	5.2	11

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73	Understanding the effect of CaO on HCN conversion and NO <sub>x</sub> formation during the circulating fluidized combustion process using DFT calculations. Proceedings of the Combustion Institute, 2021, 38, 5355-5362.	3.9	10
74	An experimental study of premixed laminar methane/oxygen/argon flames doped with hydrogen at low pressure with synchrotron photoionization. Science Bulletin, 2008, 53, 1262-1269.	9.0	9
75	CVD synthesis of cobalt spinel for bio-butanol combustion. Surface and Coatings Technology, 2017, 326, 11-17.	4.8	9
76	An experimental and modeling study of oxidation of 1,2,4-trimethylcyclohexane with JSR. Proceedings of the Combustion Institute, 2019, 37, 437-444.	3.9	9
77	Influence of metakaolinization temperature on the structure and activity of metakaolin supported Ni catalyst in dry methane reforming. Journal of Environmental Chemical Engineering, 2020, 8, 103239.	6.7	9
78	Investigation on the co-combustion mechanism of coal and biomass on a fixed-bed reactor with advanced mass spectrometry. Renewable Energy, 2020, 149, 1068-1076.	8.9	9
79	Oxidation study of benzaldehyde with synchrotron photoionization and molecular beam mass spectrometry. Combustion and Flame, 2020, 220, 455-467.	5.2	9
80	Identification and Chemistry of Phenylnitrene in Premixed Pyridine/Oxygen/Argon Flame with Tunable Synchrotron Photoionization. Chinese Journal of Chemical Physics, 2007, 20, 425-430.	1.3	8
81	Enhanced property of thin cuprous oxide film prepared through green synthetic route. Chinese Journal of Chemical Physics, 2019, 32, 365-372.	1.3	8
82	Catalytic combustion of CO over Cu-doped iron oxides: CO <sub>2</sub> effects on activity. Fuel, 2021, 289, 119760.	6.4	8
83	A merged kinetic mechanism study of two aviation surrogate fuels. Fuel, 2021, 289, 119767.	6.4	8
84	Pyrolysis study of N, N-dimethylformamide at low pressure. Journal of Analytical and Applied Pyrolysis, 2022, 162, 105426.	5.5	8
85	Oxidative Dehydrogenation of Propane to Olefins Promoted by Zr Modified ZSM-5. Catalysis Letters, 2023, 153, 285-299.	2.6	8
86	Influence of Co addition on Ni-Co mixed oxide catalysts toward the deep oxidation of low-rank unsaturated hydrocarbons. Applied Catalysis A: General, 2021, 612, 117990.	4.3	7
87	Experimental and Modeling Study of Low Temperature Oxidation of Iso-propylbenzene with JSR. Energy & Fuels, 2018, 32, 8781-8788.	5.1	6
88	Support effect on the catalytic activity and stability of non-crystal ternary oxides. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 586, 124218.	4.7	6
89	Experimental and kinetic study of pyridine oxidation under the fuel-lean condition in a jet-stirred reactor. Combustion and Flame, 2022, 243, 112042.	5.2	6
90	Pyrolysis study of iso-propylamine with SVUV-photoionization molecular-beam mass spectrometry. Combustion and Flame, 2022, 244, 112232.	5.2	6

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91	Experimental Study of Premixed Stoichiometric Ethylene/Oxygen/Argon Flame. Chinese Journal of Chemical Physics, 2006, 19, 379-385.	1.3	5
92	An experimental and modeling study of oxidation of real RP-3 aviation kerosene. Fuel, 2021, 305, 121476.	6.4	5
93	Effect of Thermal Radiation Heat Transfer on the Temperature Measurement by the Thermocouple in Premixed Laminar Flames. Journal of Thermal Science, 2022, 31, 541-551.	1.9	5
94	Pyrolysis study of 1,2,4-trimethylcyclohexane with SVUV-photoionization molecular-beam mass spectrometry. Combustion and Flame, 2020, 219, 449-455.	5.2	4
95	Insight into one-step synthesis of active amorphous La-Co thin films for catalytic oxidation of CO. Applications in Energy and Combustion Science, 2021, 5, 100021.	1.5	4
96	Experimental and kinetic modeling study of benzyl alcohol pyrolysis. Combustion and Flame, 2021, 231, 111477.	5.2	4
97	Facile Synthesis of Efficient Cu-Co-Fe Ternary Oxides by Pulsed-spray Evaporation CVD for CO Oxidation. ES Energy & Environments, 2018, , .	1.1	4
98	Pyrolysis of norbornadiene: An experimental and kinetic modeling study. Combustion and Flame, 2022, 242, 112155.	5.2	4
99	<i>In situ</i> Fourier Transform Infrared Spectroscopy Diagnostic for Characterization and Performance Test of Catalysts. Chinese Journal of Chemical Physics, 2017, 30, 513-520.	1.3	3
100	Pyrolysis of 2-methylfuran/jet fuel surrogate blends: An experimental and kinetic modeling study. Combustion and Flame, 2021, 232, 111509.	5.2	3
101	Study of low-pressure premixed laminar n-heptane+propane/oxygen/nitrogen flames. Science Bulletin, 2009, 54, 1477-1486.	9.0	2
102	CVD synthesis and catalytic combustion application of chromium oxide films. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 1001-1005.	0.8	2
103	Ab Initio Calculation of Surface Thermochemistry for Popular Solid Transition Metal-Based Species. ACS Omega, 2021, 6, 22525-22536.	3.5	2
104	Investigation of the Laminar Premixed n-Propylamine Flame. Journal of Thermal Science, 2022, 31, 854-866.	1.9	2
105	CVD-Made Spinel: Synthesis, Characterization and Applications for Clean Energy. , 2017, , .		1
106	Insights into the role of surface functional species in Cu-Mn-O thin film catalysts for N <sub>2</sub> O decomposition. Applications in Energy and Combustion Science, 2020, 1-4, 100011.	1.5	1
107	CO <sub>2</sub> effect on catalytic abatement of VOC emissions over Cu-Co binary oxide films. Materials Research Bulletin, 2021, 143, 111456.	5.2	1
108	Identifying combustion intermediates in premixed MTBE/gasoline/oxygen flame probed via synchrotron radiation. Frontiers of Energy and Power Engineering in China, 2007, 1, 79-84.	0.4	0

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109	M-Emu: A Platform for Multicast Emulation. Electronics (Switzerland), 2022, 11, 1152.	3.1	0