

# Zhen-Yu Tian

## List of Publications by Year in descending order

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109  
papers

3,507  
citations

159573

30  
h-index

155644

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. <i>Combustion and Flame</i> , 2009, 156, 1413-1426.	5.2	359
2	Catalytic oxidation of VOCs over mixed Co-Mn oxides. <i>Applied Catalysis B: Environmental</i> , 2012, 117-118, 125-134.	20.2	220
3	Identification of combustion intermediates in isomeric fuel-rich premixed butanol-oxygen flames at low pressure. <i>Combustion and Flame</i> , 2007, 148, 198-209.	5.2	189
4	Experimental Study of a Fuel-Rich Premixed Toluene Flame at Low Pressure. <i>Energy &amp; Fuels</i> , 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. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6218-6224.	3.1	149
6	An experimental study of the premixed benzene/oxygen/argon flame with tunable synchrotron photoionization. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 555-563.	3.9	131
7	An experimental and kinetic investigation of premixed furan/oxygen/argon flames. <i>Combustion and Flame</i> , 2011, 158, 756-773.	5.2	113
8	Structure-activity relation of spinel-type Co-Fe oxides for low-temperature CO oxidation. <i>Catalysis Science and Technology</i> , 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. <i>Combustion and Flame</i> , 2008, 152, 336-359.	5.2	87
10	A detailed kinetic modeling study of toluene oxidation in a premixed laminar flame. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 233-241.	3.9	79
11	An experimental and kinetic modeling study of a premixed nitromethane flame at low pressure. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 311-318.	3.9	70
12	Innovative CVD synthesis of Cu <sub>2</sub> O catalysts for CO oxidation. <i>Applied Catalysis B: Environmental</i> , 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. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 1293-1300.	3.9	66
14	In situ characterization of Cu-Co oxides for catalytic application. <i>Faraday Discussions</i> , 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. <i>Catalysis Communications</i> , 2009, 11, 118-122.	3.3	53
16	An experimental study of low-pressure premixed pyrrole/oxygen/argon flames with tunable synchrotron photoionization. <i>Combustion and Flame</i> , 2007, 151, 347-365.	5.2	52
17	An experimental study of the rich premixed ethylbenzene flame at low pressure. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 647-655.	3.9	51
18	Low-temperature deep oxidation of olefins and DME over cobalt ferrite. <i>Proceedings of the Combustion Institute</i> , 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. <i>Chemistry of Materials</i> , 2010, 22, 92-100.	6.7	44
20	New insights in the low-temperature oxidation of acetylene. <i>Proceedings of the Combustion Institute</i> , 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. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 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. <i>Journal of Materials Chemistry A</i> , 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. <i>Applied Catalysis B: Environmental</i> , 2009, 89, 659-664.	20.2	40
24	Structure sensitivity of propene oxidation over Co-Mn spinels. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2261-2268.	3.9	38
25	Combustion study of a surrogate jet fuel. <i>Combustion and Flame</i> , 2019, 202, 252-261.	5.2	37
26	The tunable VUV single-photon ionization mass spectrometry for the analysis of individual components in gasoline. <i>International Journal of Mass Spectrometry</i> , 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. <i>Combustion and Flame</i> , 2019, 202, 394-404.	5.2	35
28	Interstellar Enols Are Formed in Plasma Discharges of Alcohols. <i>Astrophysical Journal</i> , 2008, 676, 416-419.	4.5	32
29	The Effects of MTBE/Ethanol Additives on Toxic Species Concentration in Gasoline Flame. <i>Energy &amp; Fuels</i> , 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. <i>RSC Advances</i> , 2012, 2, 10809.	3.6	32
31	DFT Study on CO Catalytic Oxidation Mechanism on the Defective Cu <sub>2</sub> O(111) Surface. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16733-16740.	3.1	32
32	Identification of Combustion Intermediates in Low-Pressure Premixed Pyridine/Oxygen/Argon Flames. <i>Journal of Physical Chemistry A</i> , 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. <i>Chemical Engineering Journal</i> , 2015, 262, 1252-1259.	12.7	31
34	Experimental and kinetic investigation of 1,2,4-trimethylbenzene oxidation at low temperature. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 909-917.	3.9	31
35	Experimental and kinetic investigation of pyrolysis and oxidation of nitromethane. <i>Combustion and Flame</i> , 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. <i>Combustion and Flame</i> , 2010, 157, 1236-1260.	5.2	30

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37	Facile synthesis of catalytically active copper oxide from pulsed-spray evaporation CVD. <i>Surface and Coatings Technology</i> , 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. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 35, 253-261.	5.8	28
39	CVD synthesis of Cu <sub>2</sub> O films for catalytic application. <i>RSC Advances</i> , 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. <i>Energy &amp; Fuels</i> , 2007, 21, 1931-1941.	5.1	25
41	A wide-range experimental and modeling study of oxidation and combustion of n-propylbenzene. <i>Combustion and Flame</i> , 2018, 191, 53-65.	5.2	25
42	Pulsed-spray evaporation CVD synthesis of hematite thin films for catalytic conversion of CO. <i>Surface and Coatings Technology</i> , 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. <i>International Journal of Chemical Kinetics</i> , 2018, 50, 507-514.	1.6	22
44	Study of Low-Pressure Premixed Dimethyl Ether/Hydrogen/Oxygen/Argon Laminar Flames with Photoionization Mass Spectrometry. <i>Energy &amp; Fuels</i> , 2010, 24, 1628-1635.	5.1	21
45	CVD synthesis of Cu-doped cobalt spinel thin film catalysts for kinetic study of propene oxidation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 556, 195-200.	4.7	20
46	Pyrolysis study of iso-propylbenzene with photoionization and molecular beam mass spectrometry. <i>Combustion and Flame</i> , 2019, 209, 313-321.	5.2	20
47	Experiment study of oxygenates impact on n-heptane flames with tunable synchrotron vacuum UV photoionization. <i>Fuel</i> , 2009, 88, 2297-2302.	6.4	19
48	Investigation on the structure stability and catalytic activity of Cu-Co binary oxides. <i>Proceedings of the Combustion Institute</i> , 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. <i>Combustion and Flame</i> , 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. <i>Combustion and Flame</i> , 2018, 192, 507-516.	5.2	18
51	Mechanistic study of the CO oxidation reaction on the CuO (111) surface during chemical looping combustion. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 5289-5297.	3.9	18
52	Oxidative Dehydrogenation of Propane into Propene over Chromium Oxides. <i>Industrial &amp; Engineering Chemistry Research</i> , 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. <i>Chinese Chemical Letters</i> , 2020, 31, 1201-1206.	9.0	17
54	An experimental investigation of furfural oxidation and the development of a comprehensive combustion model. <i>Combustion and Flame</i> , 2021, 226, 200-210.	5.2	16

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55	Controlled synthesis of $\text{Fe}_2\text{O}_3/\text{Fe}_3\text{O}_4$ 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 $\text{C}_1$ - $\text{C}_4$ n-alkane/ $\text{NH}_3$ 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 $\text{CoO}_x$ 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. <i>Proceedings of the Combustion Institute</i> , 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. <i>Science Bulletin</i> , 2008, 53, 1262-1269.	9.0	9
75	CVD synthesis of cobalt spinel for bio-butanol combustion. <i>Surface and Coatings Technology</i> , 2017, 326, 11-17.	4.8	9
76	An experimental and modeling study of oxidation of 1,2,4-trimethylcyclohexane with JSR. <i>Proceedings of the Combustion Institute</i> , 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. <i>Journal of Environmental Chemical Engineering</i> , 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. <i>Renewable Energy</i> , 2020, 149, 1068-1076.	8.9	9
79	Oxidation study of benzaldehyde with synchrotron photoionization and molecular beam mass spectrometry. <i>Combustion and Flame</i> , 2020, 220, 455-467.	5.2	9
80	Identification and Chemistry of Phenylnitrene in Premixed Pyridine/Oxygen/Argon Flame with Tunable Synchrotron Photoionization. <i>Chinese Journal of Chemical Physics</i> , 2007, 20, 425-430.	1.3	8
81	Enhanced property of thin cuprous oxide film prepared through green synthetic route. <i>Chinese Journal of Chemical Physics</i> , 2019, 32, 365-372.	1.3	8
82	Catalytic combustion of CO over Cu-doped iron oxides: CO <sub>2</sub> effects on activity. <i>Fuel</i> , 2021, 289, 119760.	6.4	8
83	A merged kinetic mechanism study of two aviation surrogate fuels. <i>Fuel</i> , 2021, 289, 119767.	6.4	8
84	Pyrolysis study of N, N-dimethylformamide at low pressure. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 162, 105426.	5.5	8
85	Oxidative Dehydrogenation of Propane to Olefins Promoted by Zr Modified ZSM-5. <i>Catalysis Letters</i> , 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. <i>Applied Catalysis A: General</i> , 2021, 612, 117990.	4.3	7
87	Experimental and Modeling Study of Low Temperature Oxidation of Iso-propylbenzene with JSR. <i>Energy &amp; Fuels</i> , 2018, 32, 8781-8788.	5.1	6
88	Support effect on the catalytic activity and stability of non-crystal ternary oxides. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 586, 124218.	4.7	6
89	Experimental and kinetic study of pyridine oxidation under the fuel-lean condition in a jet-stirred reactor. <i>Combustion and Flame</i> , 2022, 243, 112042.	5.2	6
90	Pyrolysis study of iso-propylamine with SVUV-photoionization molecular-beam mass spectrometry. <i>Combustion and Flame</i> , 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