Yiguang Ju

List of Publications by Citations

120 papers	6,565 citations	41 h-index	79 g-index
123 ext. papers	8,003 ext. citations	5.6 avg, IF	6.36 L-index

#	Paper	IF	Citations
120	Plasma assisted combustion: Dynamics and chemistry. *Progress in Energy and Combustion Science*, **2015**, 48, 21-83	33.6	553
119	Comprehensive H2/O2 kinetic model for high-pressure combustion. *International Journal of Chemical Kinetics*, **2012**, 44, 444-474	1.4	507
118	A jet fuel surrogate formulated by real fuel properties. *Combustion and Flame*, **2010**, 157, 2333-2339	5.3	407
117	The experimental evaluation of a methodology for surrogate fuel formulation to emulate gas phase combustion kinetic phenomena. *Combustion and Flame*, **2012**, 159, 1444-1466	5.3	298
116	Effects of Lewis number and ignition energy on the determination of laminar flame speed using propagating spherical flames. *Proceedings of the Combustion Institute*, **2009**, 32, 1253-1260	5.9	272
115	A path flux analysis method for the reduction of detailed chemical kinetic mechanisms. *Combustion and Flame*, **2010**, 157, 1298-1307	5.3	262
114	Effect of cylindrical confinement on the determination of laminar flame speeds using outwardly propagating flames. *Combustion and Flame*, **2009**, 156, 771-779	5.3	259
113	On the extinction limit and flammability limit of non-adiabatic stretched methane–air premixed flames. *Journal of Fluid Mechanics*, **1997**, 342, 315-334	3.7	233
112	Pegylated Composite Nanoparticles Containing Upconverting Phosphors and meso-Tetraphenyl porphine (TPP) for Photodynamic Therapy. *Advanced Functional Materials*, **2011**, 21, 2488-2495	15.6	160
111	On the critical flame radius and minimum ignition energy for spherical flame initiation. *Proceedings of the Combustion Institute*, **2011**, 33, 1219-1226	5.9	135
110	Controlled synthesis of lanthanide-doped NaYF4 upconversion nanocrystals via ligand induced crystal phase transition and silica coating. *Applied Physics Letters*, **2007**, 91, 123103	3.4	132
109	Numerical experiments on reaction front propagation in n-heptane/air mixture with temperature gradient. *Proceedings of the Combustion Institute*, **2015**, 35, 3045-3052	5.9	112
108	Detection and Identification of the Keto-Hydroperoxide (HOOCH2OCHO) and Other Intermediates during Low-Temperature Oxidation of Dimethyl Ether. *Journal of Physical Chemistry A*, **2015**, 119, 7361-74	2.8	111
107	Biofunctionalization, cytotoxicity, and cell uptake of lanthanide doped hydrophobically ligated NaYF4 upconversion nanophosphors. *Journal of Applied Physics*, **2008**, 104, 094308	2.5	103
106	Extinction of low-stretched diffusion flame in microgravity. *Combustion and Flame*, **1998**, 112, 181-187	5.3	98
105	Flame synthesis and characterization of rare-earth (Er3+, Ho3+, and Tm3+) doped upconversion nanophosphors. *Applied Physics Letters*, **2007**, 90, 073104	3.4	95
104	A dynamic multi-timescale method for combustion modeling with detailed and reduced chemical kinetic mechanisms. *Combustion and Flame*, **2010**, 157, 1111-1121	5.3	94

103	The Hidden Effects of Particle Shape and Criteria for Evaluating the Upconversion Luminescence of the Lanthanide Doped Nanophosphors. *Journal of Physical Chemistry C*, **2010**, 114, 2452-2461	3.8	92
102	Self-sustaining n-heptane cool diffusion flames activated by ozone. *Proceedings of the Combustion Institute*, **2015**, 35, 881-888	5.9	83
101	Anomalous Raman Scattering of Colloidal Yb3+,Er3+ Codoped NaYF4 Nanophosphors and Dynamic Probing of the Upconversion Luminescence. *Advanced Functional Materials*, **2010**, 20, 3530-3537	15.6	83
100	A radical index for the determination of the chemical kinetic contribution to diffusion flame extinction of large hydrocarbon fuels. *Combustion and Flame*, **2012**, 159, 541-551	5.3	80
99	Plasma Assisted Low Temperature Combustion. *Plasma Chemistry and Plasma Processing*, **2016**, 36, 85-105	3.6	79
98	Multi-timescale modeling of ignition and flame regimes of n-heptane-air mixtures near spark assisted homogeneous charge compression ignition conditions. *Proceedings of the Combustion Institute*, **2011**, 33, 1245-1251	5.9	76
97	Flame synthesis of Y2O3:Eu nanophosphors using ethanol as precursor solvents. *Journal of Materials Research*, **2005**, 20, 2960-2968	2.5	71
96	Kinetic studies of ozone assisted low temperature oxidation of dimethyl ether in a flow reactor using molecular-beam mass spectrometry. *Combustion and Flame*, **2016**, 173, 187-194	5.3	70
95	Kinetic effects of toluene blending on the extinction limit of n-decane diffusion flames. *Combustion and Flame*, **2010**, 157, 411-420	5.3	69
94	Effects of the Lewis number and radiative heat loss on the bifurcation and extinction of CH4/O2-N2-He flames. *Journal of Fluid Mechanics*, **1999**, 379, 165-190	3.7	65
93	Kinetic effects of aromatic molecular structures on diffusion flame extinction. *Proceedings of the Combustion Institute*, **2011**, 33, 1163-1170	5.9	64
92	The role of low temperature fuel chemistry on turbulent flame propagation. *Combustion and Flame*, **2014**, 161, 475-483	5.3	63
91	Species and temperature measurements of methane oxidation in a nanosecond repetitively pulsed discharge. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2015**, 373,	3	62
90	Experimental study of the dynamics and structure of self-sustaining premixed cool flames using a counterflow burner. *Combustion and Flame*, **2016**, 166, 125-132	5.3	61
89	Dynamics of cool flames. *Progress in Energy and Combustion Science*, **2019**, 75, 100787	33.6	60
88	Numerical simulations of premixed cool flames of dimethyl ether/oxygen mixtures. *Combustion and Flame*, **2015**, 162, 3580-3588	5.3	58
87	In situ plasma activated low temperature chemistry and the S-curve transition in DME/oxygen/helium mixture. *Combustion and Flame*, **2014**, 161, 2054-2063	5.3	56
86	Low temperature oxidation and pyrolysis of n-heptane in nanosecond-pulsed plasma discharges. *Proceedings of the Combustion Institute*, **2017**, 36, 4105-4112	5.9	55

85	An investigation of the thermal sensitivity and stability of the □NaYF4:Yb,Er upconversion nanophosphors. *Journal of Applied Physics*, **2010**, 107, 054901	2.5	55
84	Regularized random-sampling high dimensional model representation (RS-HDMR). *Journal of Mathematical Chemistry*, **2008**, 43, 1207-1232	2.1	54
83	Quantitative measurements of HO2/H2O2 and intermediate species in low and intermediate temperature oxidation of dimethyl ether. *Proceedings of the Combustion Institute*, **2015**, 35, 457-464	5.9	53
82	Surrogate fuel formulation for oxygenated and hydrocarbon fuels by using the molecular structures and functional groups. *Fuel*, **2016**, 166, 211-218	7.1	45
81	Effect of prompt dissociation of formyl radical on 1,3,5-trioxane and CH2O laminar flame speeds with CO2 dilution at elevated pressure. *Combustion and Flame*, **2017**, 183, 253-260	5.3	42
80	Experimental and kinetic modeling study of diethyl ether flames. *Proceedings of the Combustion Institute*, **2017**, 36, 1165-1173	5.9	41
79	Study of the low-temperature reactivity of large n-alkanes through cool diffusion flame extinction. *Combustion and Flame*, **2017**, 179, 23-32	5.3	40
78	On the propagation limits and speeds of premixed cool flames at elevated pressures. *Combustion and Flame*, **2017**, 178, 61-69	5.3	40
77	Importance of a Cycloalkane Functionality in the Oxidation of a Real Fuel. *Energy & Fuels*, **2014**, 28, 7649-7661	4.1	39
76	Studies of low temperature oxidation of n-pentane with nitric oxide addition in a jet stirred reactor. *Combustion and Flame*, **2018**, 197, 78-87	5.3	36
75	Coupled hydrodynamic and diffusional-thermal instabilities in flame propagation at subunity Lewis numbers. *Physics of Fluids*, **2005**, 17, 074106	4.4	36
74	EFFECTS OF CHANNEL WIDTH AND LEWIS NUMBER ON THE MULTIPLE FLAME REGIMES AND PROPAGATION LIMITS IN MESOSCALE. *Combustion Science and Technology*, **2006**, 178, 1723-1753	1.5	35
73	Numerical modeling of ignition enhancement of CH4/O2/He mixtures using a hybrid repetitive nanosecond and DC discharge. *Proceedings of the Combustion Institute*, **2019**, 37, 5545-5552	5.9	34
72	Ab Initio Kinetics of Hydrogen Abstraction from Methyl Acetate by Hydrogen, Methyl, Oxygen, Hydroxyl, and Hydroperoxy Radicals. *Journal of Physical Chemistry A*, **2015**, 119, 6377-90	2.8	34
71	Multi-scale modeling of dynamics and ignition to flame transitions of high pressure stratified n-heptane/toluene mixtures. *Proceedings of the Combustion Institute*, **2015**, 35, 1049-1056	5.9	32
70	Ab Initio Reaction Kinetics of CH3O(?O) and □2OC(?O)H Radicals. *Journal of Physical Chemistry B*, **2016**, 120, 1590-600	3.4	32
69	Direct In Situ Quantification of HO2 from a Flow Reactor. *Journal of Physical Chemistry Letters*, **2013**, 4, 872-6	6.4	32
68	Direct numerical simulations of exhaust gas recirculation effect on multistage autoignition in the negative temperature combustion regime for stratified HCCI flow conditions by using H2O2 addition. *Combustion Theory and Modelling*, **2013**, 17, 316-334	1.5	32

67	Counterflow flame experiments and chemical kinetic modeling of dimethyl ether/methane mixtures. *Combustion and Flame*, **2018**, 196, 1-10	5.3	32
66	Nitrogen-plasma treated hafnium oxyhydroxide as an efficient acid-stable electrocatalyst for hydrogen evolution and oxidation reactions. *Nature Communications*, **2019**, 10, 1543	17.4	30
65	Low-Temperature Oxidation of Ethylene by Ozone in a Jet-Stirred Reactor. *Journal of Physical Chemistry A*, **2018**, 122, 8674-8685	2.8	30
64	Ab initio kinetics studies of hydrogen atom abstraction from methyl propanoate. *Physical Chemistry Chemical Physics*, **2016**, 18, 4594-607	3.6	29
63	Multi-scale modeling of detonation formation with concentration and temperature gradients in n-heptane/air mixtures. *Proceedings of the Combustion Institute*, **2017**, 36, 1539-1547	5.9	29
62	Experimental and modeling study of the mutual oxidation of N-pentane and nitrogen dioxide at low and high temperatures in a jet stirred reactor. *Energy*, **2018**, 165, 727-738	7.9	29
61	Flame structure and ignition limit of partially premixed cool flames in a counterflow burner. *Proceedings of the Combustion Institute*, **2017**, 36, 1513-1522	5.9	28
60	Kinetic studies and mechanism development of plasma assisted pentane combustion. *Proceedings of the Combustion Institute*, **2019**, 37, 5595-5603	5.9	27
59	Uncertainty assessment of species measurements in acetone counterflow diffusion flames. *Proceedings of the Combustion Institute*, **2013**, 34, 813-820	5.9	27
58	Studies on the Outwardly and Inwardly Propagating Spherical Flames with Radiative Loss. *Combustion Science and Technology*, **2010**, 182, 124-142	1.5	26
57	Effects of controlled non-equilibrium excitation on H2/O2/He ignition using a hybrid repetitive nanosecond and DC discharge. *Combustion and Flame*, **2019**, 206, 522-535	5.3	25
56	Effects of low-temperature chemistry and turbulent transport on knocking formation for stratified dimethyl ether/air mixtures. *Combustion and Flame*, **2019**, 200, 342-353	5.3	22
55	Phase transition induced formation of hollow structures in colloidal lanthanide-doped NaYF4 nanocrystals. *Journal of Nanoparticle Research*, **2010**, 12, 1429-1438	2.3	21
54	Two-Temperature Chemical-Nonequilibrium Modelling of a High-Velocity Argon Plasma Flow in a Low-Power Arcjet Thruster. *Plasma Chemistry and Plasma Processing*, **2014**, 34, 559-577	3.6	19
53	Study of ignition chemistry on turbulent premixed flames of n-heptane/air by using a reactor assisted turbulent slot burner. *Combustion and Flame*, **2016**, 169, 19-29	5.3	19
52	Low-temperature multistage warm diffusion flames. *Combustion and Flame*, **2018**, 195, 63-74	5.3	18
51	STUDIES ON THE LIFTOFF PROPERTIES OF DIMETHYL ETHER JET DIFFUSION FLAMES. *Combustion Science and Technology*, **2006**, 178, 2219-2247	1.5	17
50	Studies of multi-channel spark ignition of lean n-pentane/air mixtures in a spherical chamber. *Combustion and Flame*, **2020**, 212, 337-344	5.3	17

49	Cool diffusion flames of butane isomers activated by ozone in the counterflow. *Combustion and Flame*, **2018**, 191, 175-186	5.3	16
48	Structures and propagation speeds of autoignition-assisted premixed n-heptane/air cool and warm flames at elevated temperatures and pressures. *Combustion and Flame*, **2020**, 211, 8-17	5.3	16
47	First detection of a key intermediate in the oxidation of fuel + NO systems: HONO. *Chemical Physics Letters*, **2019**, 719, 22-26	2.5	15
46	Ab Initio Unimolecular Reaction Kinetics of CH2C(?O)OCH3 and CH3C(?O)OCH2 Radicals. *Journal of Physical Chemistry A*, **2015**, 119, 10553-62	2.8	15
45	Thermo-kinetic dynamics of near-limit cool diffusion flames. *Proceedings of the Combustion Institute* , **2017**, 36, 1329-1337	5.9	15
44	Pyrolysis and Oxidation of Methane in a RF Plasma Reactor. *Plasma Chemistry and Plasma Processing*, **2017**, 37, 1551-1571	3.6	14
43	Ab initio pressure-dependent reaction kinetics of methyl propanoate radicals. *Physical Chemistry Chemical Physics*, **2015**, 17, 31061-72	3.6	14
42	Flame Aerosol Synthesis and Electrochemical Characterization of Ni-Rich Layered Cathode Materials for Li-Ion Batteries. *ACS Applied Energy Materials*, **2019**, 2, 1319-1329	6.1	13
41	Kinetic Effects of n-Heptane Addition on Low and High Temperature Oxidation of Methane in a Jet-Stirred Reactor. *Energy & Fuels*, **2018**, 32, 11970-11978	4.1	13
40	Effects of Bath Gas and NOx Addition on n-Pentane Low-Temperature Oxidation in a Jet-Stirred Reactor. *Energy & Fuels*, **2019**, 33, 5655-5663	4.1	12
39	A multi-timescale and correlated dynamic adaptive chemistry and transport (CO-DACT) method for computationally efficient modeling of jet fuel combustion with detailed chemistry and transport. *Combustion and Flame*, **2017**, 184, 297-311	5.3	12
38	Effects of turbulence and flame instability on flame front evolution. *Physics of Fluids*, **2006**, 18, 104105	4.4	12
37	Understanding cool flames and warm flames. *Proceedings of the Combustion Institute*, **2021**, 38, 83-119	5.9	11
36	1-D imaging of rotation-vibration non-equilibrium from pure rotational ultrafast coherent anti-Stokes Raman scattering. *Optics Letters*, **2020**, 45, 4252-4255	3	10
35	Dynamics and burning limits of near-limit hot, warm, and cool diffusion flames of dimethyl ether at elevated pressures. *Proceedings of the Combustion Institute*, **2019**, 37, 1791-1798	5.9	10
34	Kinetic study of plasma-assisted n-dodecane/O2/N2 pyrolysis and oxidation in a nanosecond-pulsed discharge. *Proceedings of the Combustion Institute*, **2021**, 38, 6521-6531	5.9	10
33	On the chemical characteristics and dynamics of n-alkane low-temperature multistage diffusion flames. *Proceedings of the Combustion Institute*, **2019**, 37, 1717-1724	5.9	9
32	On the Effect of Nonequilibrium Plasma on the Minimum Ignition Energy—Part 1: Discharge Model. *IEEE Transactions on Plasma Science*, **2011**, 39, 615-623	1.3	9

31	Studies of high-pressure n-butane oxidation with CO2 dilution up to 100 atm using a supercritical-pressure jet-stirred reactor. *Proceedings of the Combustion Institute*, **2021**, 38, 279-287	5.9	9
30	Computational studies of diffusion cool flame structures of n-heptane with/without ozone sensitization with a reduced chemistry. *Journal of Mechanical Science and Technology*, **2015**, 29, 1297-1305	1.6	7
29	Transient interactions between a premixed double flame and a vortex. *Proceedings of the Combustion Institute*, **2019**, 37, 1851-1859	5.9	7
28	Optical sensors for power transformer monitoring: A review. *High Voltage*, **2021**, 6, 367-386	4.1	7
27	Studies of high pressure 1,3-butadiene flame speeds and high temperature kinetics using hydrogen and oxygen sensitization. *Combustion and Flame*, **2019**, 200, 135-141	5.3	6
26	In Situ Identification of NNH and N2H2 by Using Molecular-Beam Mass Spectrometry in Plasma-Assisted Catalysis for NH3 Synthesis. *ACS Energy Letters*,53-58	20.1	6
25	Numerical Studies of Novel Inwardly Off-Center Shearing Jet-Stirred Reactor. *AIAA Journal*, **2018**, 56, 3388-3392	2.1	5
24	Kinetic effects of n-propylbenzene on n-dodecane counterflow nonpremixed cool flames. *Combustion and Flame*, **2019**, 208, 262-272	5.3	5
23	Development of an Ethanol Reduced Kinetic Mechanism Based on the Quasi-Steady State Assumption and Feasibility Evaluation for Multi-Dimensional Flame Analysis. *Journal of Thermal Science and Technology*, **2010**, 5, 189-199	0.6	5
22	Kinetic Enhancement of Microchannel Detonation Transition by Ozone Addition to Acetylene Mixtures. *AIAA Journal*, **2019**, 57, 476-481	2.1	5
21	Studies of the dynamics of autoignition assisted outwardly propagating spherical cool and double flames under shock-tube conditions. *Proceedings of the Combustion Institute*, **2021**, 38, 2275-2283	5.9	5
20	Turbulent nonpremixed cool flames: Experimental measurements, Direct Numerical Simulation, and manifold-based combustion modeling. *Combustion and Flame*, **2019**, 209, 144-154	5.3	4
19	LES modelling of turbulent non-premixed jet flames with correlated dynamic adaptive chemistry. *Combustion Theory and Modelling*, **2018**, 22, 694-713	1.5	3
18	Extreme Low-Temperature Combustion Chemistry: Ozone-Initiated Oxidation of Methyl Hexanoate. *Journal of Physical Chemistry A*, **2020**, 124, 9897-9914	2.8	3
17	The radical index and the effect of oxygen concentration on non-premixed cool flame extinction of large n-alkanes. *Combustion and Flame*, **2021**, 231, 111471	5.3	3
16	Low- and intermediate-temperature oxidation of dimethyl ether up to 100 atm in a supercritical pressure jet-stirred reactor. *Combustion and Flame*, **2022**, 112059	5.3	3
15	Programmable heating and quenching for efficient thermochemical synthesis.. *Nature*, **2022**, 605, 470-476	50.4	3
14	Counterflow Experiments and Kinetic Modeling of Dimethyl Ether/Methane Cool Diffusion Flames **2018**,		2

13	A New Cool Flame: Establishment and Studies of Dynamics and Kinetics **2014**,		2
12	Ligand Effects and Synthesis of NaYF4 Based Up and Downconversion Colloidal Nanophosphors. *ACS Symposium Series*, **2011**, 71-85	0.4	2
11	Simultaneous single-shot rotation-vibration non-equilibrium thermometry using pure rotational fs/ps CARS coherence beating.. *Optics Letters*, **2022**, 47, 1351-1354	3	2
10	Promoting Si-graphite composite anodes with SWCNT additives for half and NCM811 full lithium ion batteries and assessment criteria from an industrial perspective. *Frontiers in Energy*, **2019**, 13, 626-635	2.6	2
9	Studies of autoignition-assisted nonpremixed cool flames. *Proceedings of the Combustion Institute*, **2021**, 38, 2333-2340	5.9	2
8	Studies of Ozone-Sensitized Low- and High-Temperature Oxidations of Diethyl Carbonate. *Journal of Physical Chemistry A*, **2021**, 125, 1760-1765	2.8	2
7	On the Effect of Nonequilibrium Plasma on the Minimum Ignition Energy: Part 2. *IEEE Transactions on Plasma Science*, **2011**, 39, 3283-3287	1.3	1
6	OH concentration and temperature measured by femtosecond cavity enhanced absorption spectroscopy in a nanosecond-pulsed dielectric barrier discharge **2022**,		1
5	Rotation-vibration non-equilibrium measurement using pure rotational fs/ps CARS coherence beating **2022**,		1
4	Experimental and computational investigations of ethane and ethylene kinetics with copper oxide particles for Chemical Looping Combustion. *Proceedings of the Combustion Institute*, **2021**, 38, 5249-5257	5.9	1
3	Kinetic studies of excited singlet oxygen atom O(1D) reactions with ethanol. *International Journal of Chemical Kinetics*, **2021**, 53, 688-701	1.4	0
2	Modeling of the effects of non-equilibrium excitation and electrode geometry on H2/air ignition in a nanosecond plasma discharge. *Combustion and Flame*, **2022**, 240, 112046	5.3	0
1	Femtosecond ultraviolet laser absorption spectroscopy for simultaneous measurements of temperature and OH concentration. *Applied Physics Letters*, **2022**, 120, 201103	3.4	0