

# Yuan Xuan

## List of Publications by Year in descending order

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36  
papers

803  
citations

430874

18  
h-index

501196

28  
g-index

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all docs

36  
docs citations

36  
times ranked

685  
citing authors

#	ARTICLE	IF	CITATIONS
1	Describing the Mechanism of Instability Suppression Using a Central Pilot Flame With Coupled Experiments and Simulations. <i>Journal of Engineering for Gas Turbines and Power</i> , 2022, 144, .	1.1	1
2	In situ temperature measurements in sooting methane/air flames using synchrotron x-ray fluorescence of seeded krypton atoms. <i>Science Advances</i> , 2022, 8, eabm7947.	10.3	5
3	Understanding Ozone Transport and Deposition within Indoor Surface Boundary Layers. <i>Environmental Science &amp; Technology</i> , 2022, 56, 7820-7829.	10.0	3
4	Elucidating the chemical pathways responsible for the sooting tendency of 1 and 2-phenylethanol. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1327-1334.	3.9	7
5	Effect of ammonia addition on suppressing soot formation in methane co-flow diffusion flames. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 2497-2505.	3.9	41
6	An <i>a priori</i> analysis of the structure of local subfilter-scale species surrounding flame fronts using direct numerical simulation of turbulent premixed flames. <i>Physics of Fluids</i> , 2021, 33, .	4.0	3
7	Fourierâ€œphysical space coherent structure in flameâ€œvortex interactions relevant to flameâ€œturbulence interactions using a new signal periodization procedure. <i>AIP Advances</i> , 2021, 11, .	1.3	2
8	ReaxFF molecular dynamics study on pyrolysis of bicyclic compounds for aviation fuel. <i>Fuel</i> , 2021, 297, 120724.	6.4	36
9	Pyrolysis of bio-derived dioxolane fuels: A ReaxFF molecular dynamics study. <i>Fuel</i> , 2021, 306, 121616.	6.4	19
10	Numerical simulations of yield-based sooting tendencies of aromatic fuels using ReaxFF molecular dynamics. <i>Fuel</i> , 2020, 262, 116545.	6.4	37
11	Assessment of disparities in estimating filtered chemical reaction rates in LES using DNS of turbulent premixed flames. <i>Combustion Theory and Modelling</i> , 2020, 24, 1179-1194.	1.9	6
12	ReaxFF-based molecular dynamics study of bio-derived polycyclic alkanes as potential alternative jet fuels. <i>Fuel</i> , 2020, 279, 118548.	6.4	35
13	A computationally-efficient method for flamelet calculations. <i>Combustion and Flame</i> , 2020, 221, 94-102.	5.2	3
14	Reactive Molecular Dynamics Simulations and Quantum Chemistry Calculations To Investigate Soot-Relevant Reaction Pathways for Hexylamine Isomers. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4290-4304.	2.5	11
15	Sooting tendencies of 20 bio-derived fuels for advanced spark-ignition engines. <i>Fuel</i> , 2020, 276, 118059.	6.4	19
16	A scaling analysis for the evolution of small-scale turbulence eddies across premixed flames with implications on distributed combustion. <i>Combustion Theory and Modelling</i> , 2020, 24, 307-325.	1.9	5
17	Pyrolysis of binary fuel mixtures at supercritical conditions: A ReaxFF molecular dynamics study. <i>Fuel</i> , 2019, 235, 194-207.	6.4	75
18	Experimental and numerical study of variable oxygen index effects on soot yield and distribution in laminar co-flow diffusion flames. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 859-867.	3.9	18

#	ARTICLE	IF	CITATIONS
19	Sooting tendencies of co-optima test gasolines and their surrogates. Proceedings of the Combustion Institute, 2019, 37, 961-968.	3.9	39
20	Multi-scale modeling of gas-phase reactions in metal-organic chemical vapor deposition growth of WSe <sub>2</sub> . Journal of Crystal Growth, 2019, 527, 125247.	1.5	59
21	Numerical investigation of the pressure-dependence of yield sooting indices for n-alkane and aromatic species. Fuel, 2019, 254, 115574.	6.4	19
22	Application of ReaxFF-Reactive Molecular Dynamics and Continuum Methods in High-Temperature/Pressure Pyrolysis of Fuel Mixtures. Challenges and Advances in Computational Chemistry and Physics, 2019, , 161-185.	0.6	2
23	Experimental and numerical investigation of effects of premixing on soot processes in iso-octane co-flow flames. Proceedings of the Combustion Institute, 2019, 37, 1031-1039.	3.9	6
24	Effects of large aromatic precursors on soot formation in turbulent non-premixed sooting jet flames. Combustion Theory and Modelling, 2019, 23, 439-466.	1.9	8
25	A Novel Strategy to Identify Dynamically Dominant Inter-Scale Couplings for Application to Large-Eddy Simulation of Premixed Turbulent Combustion. , 2019, , .		0
26	Kinematic Relationships between Physical and Fourier Space in Premixed Turbulent Combustion for Application to Large-Eddy Simulation. , 2019, , .		0
27	Numerical Investigation of Turbulent Kinetic Energy Dynamics in Chemically-Reacting Homogeneous Turbulence. Flow, Turbulence and Combustion, 2018, 101, 775-794.	2.6	5
28	ReaxFF based molecular dynamics simulations of ignition front propagation in hydrocarbon/oxygen mixtures under high temperature and pressure conditions. Physical Chemistry Chemical Physics, 2017, 19, 5004-5017.	2.8	40
29	Assessment of the constant non-unity Lewis number assumption in chemically-reacting flows. Combustion Theory and Modelling, 2016, 20, 632-657.	1.9	57
30	Two-dimensional flow effects on soot formation in laminar premixed flames. Combustion and Flame, 2016, 166, 113-124.	5.2	22
31	A computationally-efficient, semi-implicit, iterative method for the time-integration of reacting flows with stiff chemistry. Journal of Computational Physics, 2015, 295, 740-769.	3.8	61
32	Effects of aromatic chemistry-turbulence interactions on soot formation in a turbulent non-premixed flame. Proceedings of the Combustion Institute, 2015, 35, 1911-1919.	3.9	40
33	A flamelet-based a priori analysis on the chemistry tabulation of polycyclic aromatic hydrocarbons in non-premixed flames. Combustion and Flame, 2014, 161, 1516-1525.	5.2	23
34	An improved bounded semi-Lagrangian scheme for the turbulent transport of passive scalars. Journal of Computational Physics, 2014, 272, 1-22.	3.8	20
35	Modeling curvature effects in diffusion flames using a laminar flamelet model. Combustion and Flame, 2014, 161, 1294-1309.	5.2	42
36	Numerical modeling of sooting tendencies in a laminar co-flow diffusion flame. Combustion and Flame, 2013, 160, 1657-1666.	5.2	34