Yuan Xuan

List of Publications by Year
in descending order

36 papers	803 citations	430874 18 h-index	501196 28 g-index
36 all docs	36 docs citations	36 times ranked	685 citing authors

#	Article	IF	Citations
1	Pyrolysis of binary fuel mixtures at supercritical conditions: A ReaxFF molecular dynamics study. Fuel, 2019, 235, 194-207.	6.4	75
2	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
3	Multi-scale modeling of gas-phase reactions in metal-organic chemical vapor deposition growth of WSe2. Journal of Crystal Growth, 2019, 527, 125247.	1.5	59
4	Assessment of the constant non-unity Lewis number assumption in chemically-reacting flows. Combustion Theory and Modelling, 2016, 20, 632-657.	1.9	57
5	Modeling curvature effects in diffusion flames using a laminar flamelet model. Combustion and Flame, 2014, 161, 1294-1309.	5.2	42
6	Effect of ammonia addition on suppressing soot formation in methane co-flow diffusion flames. Proceedings of the Combustion Institute, 2021, 38, 2497-2505.	3.9	41
7	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
8	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
9	Sooting tendencies of co-optima test gasolines and their surrogates. Proceedings of the Combustion Institute, 2019, 37, 961-968.	3.9	39
10	Numerical simulations of yield-based sooting tendencies of aromatic fuels using ReaxFF molecular dynamics. Fuel, 2020, 262, 116545.	6.4	37
11	ReaxFF molecular dynamics study on pyrolysis of bicyclic compounds for aviation fuel. Fuel, 2021, 297, 120724.	6.4	36
12	ReaxFF-based molecular dynamics study of bio-derived polycyclic alkanes as potential alternative jet fuels. Fuel, 2020, 279, 118548.	6.4	35
13	Numerical modeling of sooting tendencies in a laminar co-flow diffusion flame. Combustion and Flame, 2013, 160, 1657-1666.	5.2	34
14	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
15	Two-dimensional flow effects on soot formation in laminar premixed flames. Combustion and Flame, 2016, 166, 113-124.	5.2	22
16	An improved bounded semi-Lagrangian scheme for the turbulent transport of passive scalars. Journal of Computational Physics, 2014, 272, 1-22.	3.8	20
17	Numerical investigation of the pressure-dependence of yield sooting indices for n-alkane and aromatic species. Fuel, 2019, 254, 115574.	6.4	19
18	Sooting tendencies of 20 bio-derived fuels for advanced spark-ignition engines. Fuel, 2020, 276, 118059.	6.4	19

#	Article	IF	Citations
19	Pyrolysis of bio-derived dioxolane fuels: A ReaxFF molecular dynamics study. Fuel, 2021, 306, 121616.	6.4	19
20	Experimental and numerical study of variable oxygen index effects on soot yield and distribution in laminar co-flow diffusion flames. Proceedings of the Combustion Institute, 2019, 37, 859-867.	3.9	18
21	Reactive Molecular Dynamics Simulations and Quantum Chemistry Calculations To Investigate Soot-Relevant Reaction Pathways for Hexylamine Isomers. Journal of Physical Chemistry A, 2020, 124, 4290-4304.	2.5	11
22	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
23	Elucidating the chemical pathways responsible for the sooting tendency of 1 and 2-phenylethanol. Proceedings of the Combustion Institute, 2021, 38, 1327-1334.	3.9	7
24	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
25	Assessment of disparities in estimating filtered chemical reaction rates in LES using DNS of turbulent premixed flames. Combustion Theory and Modelling, 2020, 24, 1179-1194.	1.9	6
26	Numerical Investigation of Turbulent Kinetic Energy Dynamics in Chemically-Reacting Homogeneous Turbulence. Flow, Turbulence and Combustion, 2018, 101, 775-794.	2.6	5
27	A scaling analysis for the evolution of small-scale turbulence eddies across premixed flames with implications on distributed combustion. Combustion Theory and Modelling, 2020, 24, 307-325.	1.9	5
28	In situ temperature measurements in sooting methane/air flames using synchrotron x-ray fluorescence of seeded krypton atoms. Science Advances, 2022, 8, eabm7947.	10.3	5
29	A computationally-efficient method for flamelet calculations. Combustion and Flame, 2020, 221, 94-102.	5.2	3
30	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. Physics of Fluids, 2021, 33, .	4.0	3
31	Understanding Ozone Transport and Deposition within Indoor Surface Boundary Layers. Environmental Science & Technology, 2022, 56, 7820-7829.	10.0	3
32	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
33	Fourierâ€"physical space coherent structure in flameâ€"vortex interactions relevant to flameâ€"turbulence interactions using a new signal periodization procedure. AIP Advances, 2021, 11, .	1.3	2
34	Describing the Mechanism of Instability Suppression Using a Central Pilot Flame With Coupled Experiments and Simulations. Journal of Engineering for Gas Turbines and Power, 2022, 144, .	1.1	1
35	A Novel Strategy to Identify Dynamically Dominant Inter-Scale Couplings for Application to Large-Eddy Simulation of Premixed Turbulent Combustion. , 2019, , .		0
36	Kinematic Relationships between Physical and Fourier Space in Premixed Turbulent Combustion for Application to Large-Eddy Simulation. , 2019, , .		0