

# Chun Sang Yoo

## List of Publications by Year in descending order

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67  
papers

3,397  
citations

218677  
26  
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144013  
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docs citations

67  
times ranked

1383  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flame edge dynamics in counterflow nonpremixed flames of CH <sub>4</sub> /He versus air at low strain rates: An experimental and numerical study. Combustion and Flame, 2022, 235, 111718.	5.2	4
2	Real-fluid thermophysicalModels: An OpenFOAM-based library for reacting flow simulations at high pressure. Computer Physics Communications, 2022, 273, 108264.	7.5	5
3	Effect of the thickness of polyethylene insulation on flame spread over electrical wire with Cu-core under AC electric fields. Combustion and Flame, 2022, 240, 112017.	5.2	6
4	Effects of non-thermal plasma on turbulent premixed flames of ammonia/air in a swirl combustor. Fuel, 2022, 323, 124227.	6.4	17
5	Effects of Schmidt number on non-monotonic liftoff height behavior in laminar coflow-jet flames with diluted methane and ethylene. Proceedings of the Combustion Institute, 2021, 38, 1913-1921.	3.9	3
6	Effect of core metal on flame spread and extinction for horizontal electrical wire with applied AC electric fields. Proceedings of the Combustion Institute, 2021, 38, 4747-4756.	3.9	11
7	On the flame structure and stabilization characteristics of autoignited laminar lifted n-heptane jet flames in heated coflow air. Combustion and Flame, 2021, 223, 307-319.	5.2	7
8	On the oscillating flame characteristics in nonpremixed laminar coflow-jets: An experimental and numerical study. Proceedings of the Combustion Institute, 2021, 38, 2049-2056.	3.9	3
9	Large Area Organic Thin Film Coating Using a Micro Multi-nozzle Jet Head with Side Suction Channels. International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 829-840.	4.9	1
10	NO <sub>x</sub> emission characteristics of CH <sub>4</sub> versus O <sub>2</sub> /CO <sub>2</sub> counterflow non-premixed flames at various pressures up to 300 atm. Fuel, 2021, 299, 120411.	6.4	4
11	On the flame stabilization of turbulent lifted hydrogen jet flames in heated coflows near the autoignition limit: A comparative DNS study. Combustion and Flame, 2021, 233, 111584.	5.2	14
12	A DNS study of ignition characteristics of a lean PRF/air mixture with $\text{CH}_2\text{O}$ and $\text{H}_2$	5.2	7
13	Effects of non-thermal plasma on the lean blowout limits and CO/NO <sub>x</sub> emissions in swirl-stabilized turbulent lean-premixed flames of methane/air. Combustion and Flame, 2020, 212, 403-414.	5.2	34
14	Effects of diluents on the lifted flame characteristics in laminar nonpremixed coflow propane jets. Combustion and Flame, 2020, 222, 145-151.	5.2	5
15	Laminar flame speed, Markstein length, and cellular instability for spherically propagating methane/ethylene-air premixed flames. Combustion and Flame, 2020, 214, 464-474.	5.2	33
16	Oscillation dynamics of colloidal particles caused by surfactant in an evaporating droplet. Journal of Mechanical Science and Technology, 2020, 34, 801-808.	1.5	5
17	A numerical study of combustion and NO <sub>x</sub> emission characteristics of a lean premixed model gas turbine combustor. Journal of Mechanical Science and Technology, 2020, 34, 1795-1803.	1.5	2
18	Chemical Explosive Mode Analysis for Diagnostics of Direct Numerical Simulations. , 2020, , 89-108.		1

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19	Identification of premixed flame propagation modes using chemical explosive mode analysis. Proceedings of the Combustion Institute, 2019, 37, 2407-2415.	3.9	78
20	Decreasing liftoff height behavior in diluted laminar lifted methane jet flames. Proceedings of the Combustion Institute, 2019, 37, 2005-2012.	3.9	20
21	Ignition characteristics of a temporally evolving n-heptane jet in an iso-octane/air stream under RCCI combustion-relevant conditions. Combustion and Flame, 2019, 208, 299-312.	5.2	21
22	A numerical study of the pyrolysis effect on autoignited laminar lifted dimethyl ether jet flames in heated coflow air. Combustion and Flame, 2019, 209, 225-238.	5.2	10
23	Extension of Lean Operation and Extinction Limit of Premixed Flame Applying Non-Thermal Plasma. Journal of the Korean Society of Combustion, 2019, 24, 46-50.	0.2	1
24	A Numerical Study on the Low Limit Auto-Ignition Temperature of Syngas and Modification of Chemical Kinetic Mechanism. , 2019, , .		0
25	Differential diffusion effect on the stabilization characteristics of autoignited laminar lifted methane/hydrogen jet flames in heated coflow air. Combustion and Flame, 2018, 198, 305-319.	5.2	19
26	Flame instabilities and flame cell dynamics in opposed nonpremixed tubular flames with radiative heat loss. Combustion and Flame, 2018, 194, 322-333.	5.2	5
27	On the effect of injection timing on the ignition of lean PRF/air/EGR mixtures under direct dual fuel stratification conditions. Combustion and Flame, 2017, 183, 309-321.	5.2	56
28	A modification of the narrow band-based WSGG regrouping method for computation time reduction in non-gray gas radiation analysis. International Journal of Heat and Mass Transfer, 2017, 111, 1314-1321.	4.8	2
29	Surfactant effects on droplet dynamics and deposition patterns: a lattice gas model. Soft Matter, 2017, 13, 6529-6541.	2.7	20
30	Doubly conditional moment closure modelling for HCCI with temperature inhomogeneities. Proceedings of the Combustion Institute, 2017, 36, 3677-3685.	3.9	13
31	Ignition of a lean PRF/air mixture under RCCI/SCCI conditions: Chemical aspects. Proceedings of the Combustion Institute, 2017, 36, 3587-3596.	3.9	52
32	Ignition of a lean PRF/air mixture under RCCI/SCCI conditions: A comparative DNS study. Proceedings of the Combustion Institute, 2017, 36, 3623-3631.	3.9	37
33	A numerical study of the diffusive-thermal instability of opposed nonpremixed tubular flames. Combustion and Flame, 2015, 162, 4612-4621.	5.2	8
34	A Comparative Study of Conditional Moment Closure Modelling for Ignition of iso-octane and n-heptane in Thermally Stratified Mixtures. Flow, Turbulence and Combustion, 2015, 95, 1-28.	2.6	23
35	A DNS study of self-accelerating cylindrical hydrogen-air flames with detailed chemistry. Proceedings of the Combustion Institute, 2015, 35, 753-760.	3.9	27
36	A DNS study of the ignition of lean PRF/air mixtures with temperature inhomogeneities under high pressure and intermediate temperature. Combustion and Flame, 2015, 162, 717-726.	5.2	60

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37	Dynamics of bluff-body-stabilized premixed hydrogen/air flames in a narrow channel. Combustion and Flame, 2015, 162, 2602-2609.	5.2	46
38	Direct numerical simulations of ignition of a lean n-heptane/air mixture with temperature and composition inhomogeneities relevant to HCCI and SCCI combustion. Combustion and Flame, 2015, 162, 4566-4585.	5.2	63
39	Response of flame thickness and propagation speed under intense turbulence in spatially developing lean premixed methane-air jet flames. Combustion and Flame, 2015, 162, 3294-3306.	5.2	72
40	Two-dimensional characteristic boundary conditions for open boundaries in the lattice Boltzmann methods. Journal of Computational Physics, 2015, 302, 191-199.	3.8	11
41	Conditional moment closure modelling for HCCI with temperature inhomogeneities. Proceedings of the Combustion Institute, 2015, 35, 3087-3095.	3.9	20
42	Instability Deposit Patterns in an Evaporating Droplet. Journal of Physical Chemistry B, 2014, 118, 2535-2543.	2.6	9
43	Direct numerical simulations of the ignition of a lean biodiesel/air mixture with temperature and composition inhomogeneities at high pressure and intermediate temperature. Combustion and Flame, 2014, 161, 2878-2889.	5.2	36
44	A DNS study of ignition characteristics of a lean iso-octane/air mixture under HCCI and SACI conditions. Proceedings of the Combustion Institute, 2013, 34, 2985-2993.	3.9	109
45	Direct numerical simulations of the ignition of lean primary reference fuel/air mixtures with temperature inhomogeneities. Combustion and Flame, 2013, 160, 2038-2047.	5.2	103
46	Computational diagnostics for n-heptane flames with chemical explosive mode analysis. Combustion and Flame, 2012, 159, 3119-3127.	5.2	107
47	Chemical explosive mode analysis for a turbulent lifted ethylene jet flame in highly-heated coflow. Combustion and Flame, 2012, 159, 265-274.	5.2	236
48	Direct numerical simulations of ignition of a lean n-heptane/air mixture with temperature inhomogeneities at constant volume: Parametric study. Combustion and Flame, 2011, 158, 1727-1741.	5.2	222
49	A DNS study on the stabilization mechanism of a turbulent lifted ethylene jet flame in highly-heated coflow. Proceedings of the Combustion Institute, 2011, 33, 1619-1627.	3.9	140
50	Effect of NO on extinction and re-ignition of vortex-perturbed hydrogen flames. Combustion and Flame, 2010, 157, 217-229.	5.2	12
51	Three-dimensional direct numerical simulation of a turbulent lifted hydrogen jet flame in heated coflow: a chemical explosive mode analysis. Journal of Fluid Mechanics, 2010, 652, 45-64.	3.4	271
52	Effects of H <sub>2</sub> O and NO on extinction and re-ignition of vortex-perturbed hydrogen counterflow flames. Proceedings of the Combustion Institute, 2009, 32, 1059-1066.	3.9	17
53	Analysis of second-order conditional moment closure applied to an autoignitive lifted hydrogen jet flame. Proceedings of the Combustion Institute, 2009, 32, 1695-1703.	3.9	24
54	A numerical study of transient ignition and flame characteristics of diluted hydrogen versus heated air in counterflow. Combustion and Flame, 2009, 156, 140-151.	5.2	18

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55	Dynamic stiffness removal for direct numerical simulations. Combustion and Flame, 2009, 156, 1542-1551.	5.2	111
56	Three-dimensional direct numerical simulation of a turbulent lifted hydrogen jet flame in heated coflow: flame stabilization and structure. Journal of Fluid Mechanics, 2009, 640, 453-481.	3.4	197
57	Terascale direct numerical simulations of turbulent combustion using S3D. Computational Science & Discovery, 2009, 2, 015001.	1.5	462
58	Tracking flame base movement and interaction with ignition kernels using topological methods. Journal of Physics: Conference Series, 2009, 180, 012086.	0.4	5
59	â€œA numerical study of transient ignition and flame characteristics of diluted hydrogen versus heated air in counterflowâ€•[Combust. Flame Vol. 155, Issue 3]. Combustion and Flame, 2008, 155, 450.	5.2	0
60	High-fidelity simulations for clean and efficient combustion of alternative fuels. Journal of Physics: Conference Series, 2008, 125, 012028.	0.4	2
61	Direct numerical simulation of turbulent counterflow nonpremixed flames. Journal of Physics: Conference Series, 2007, 78, 012029.	0.4	0
62	Characteristic boundary conditions for simulations of compressible reacting flows with multi-dimensional, viscous and reaction effects. Combustion Theory and Modelling, 2007, 11, 259-286.	1.9	211
63	Transient soot dynamics in turbulent nonpremixed ethyleneâ€“air counterflow flames. Proceedings of the Combustion Institute, 2007, 31, 701-708.	3.9	44
64	Interaction of turbulence, chemistry, and radiation in strained nonpremixed flames. Journal of Physics: Conference Series, 2005, 16, 91-100.	0.4	6
65	Transient dynamics of edge flames in a laminar nonpremixed hydrogenâ€“air counterflow. Proceedings of the Combustion Institute, 2005, 30, 349-356.	3.9	46
66	Characteristic boundary conditions for direct simulations of turbulent counterflow flames. Combustion Theory and Modelling, 2005, 9, 617-646.	1.9	176
67	Extinction of Strained Premixed Flames of Hydrogen/Air/Steam Mixture: Local Equilibrium Temperature and Local Equivalence Ratio. Combustion Science and Technology, 2000, 155, 227-242.	2.3	7