

# Robert S Barlow

## List of Publications by Year in descending order

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Version: 2024-02-01

53  
papers

3,309  
citations

201674

27  
h-index

175258

52  
g-index

53  
all docs

53  
docs citations

53  
times ranked

1240  
citing authors

#	ARTICLE	IF	CITATIONS
1	Classification of flame prehistory and quenching topology in a side-wall quenching burner at low-intensity turbulence by correlating transport effects with CO $\langle \text{CO} \rangle$ and temperature. Combustion and Flame, 2022, 235, 111601.	5.2	15
2	Detailed assessment of the thermochemistry in a side-wall quenching burner by simultaneous quantitative measurement of CO $\langle \text{CO} \rangle$ and temperature using laser diagnostics. Combustion and Flame, 2022, 235, 111707.	5.2	14
3	Fast shutter line-imaging system for dual-dispersion Raman spectroscopy in ethanol and OME flames. Combustion and Flame, 2022, 243, 111864.	5.2	4
4	Turbulent multi-regime methane-air flames analysed by Raman/Rayleigh spectroscopy and conditional velocity field measurements. Combustion and Flame, 2022, 243, 111941.	5.2	8
5	Spontaneous Raman $\text{LIF}$ $\text{CO}$ $\text{OH}$ measurements of species concentration in turbulent spray flames. Proceedings of the Combustion Institute, 2021, 38, 1779-1786.	3.9	4
6	Characterization of multi-regime reaction zones in a piloted inhomogeneous jet flame with local extinction. Proceedings of the Combustion Institute, 2021, 38, 2571-2579.	3.9	5
7	Prediction of local extinctions in piloted jet flames with inhomogeneous inlets using unstrained flamelets. Combustion and Flame, 2020, 212, 415-432.	5.2	26
8	Combustion regime identification from machine learning trained by Raman/Rayleigh line measurements. Combustion and Flame, 2020, 219, 268-274.	5.2	26
9	Assessing the relative importance of flame regimes in Raman/Rayleigh line measurements of turbulent lifted flames. Proceedings of the Combustion Institute, 2019, 37, 2297-2305.	3.9	19
10	Reaction zone stratification in piloted highly-turbulent fuel-lean premixed jets. Combustion and Flame, 2019, 208, 327-329.	5.2	7
11	Assessing an experimental approach for chemical explosive mode and heat release rate using DNS data. Combustion and Flame, 2019, 209, 214-224.	5.2	11
12	Local flame structure analysis in turbulent CH <sub>4</sub> /air flames with multi-regime characteristics. Combustion and Flame, 2019, 210, 426-438.	5.2	43
13	Structure of a stratified CH <sub>4</sub> flame with H <sub>2</sub> addition. Proceedings of the Combustion Institute, 2019, 37, 2307-2315.	3.9	11
14	Modeling stratified flames with and without shear using multiple mapping conditioning. Proceedings of the Combustion Institute, 2019, 37, 2317-2324.	3.9	9
15	Multi-Scalar Measurements of Premixed Flames in Extreme Turbulence Using Raman/Rayleigh Diagnostics. , 2019, , .		1
16	Regime identification from Raman/Rayleigh line measurements in partially premixed flames. Combustion and Flame, 2018, 189, 126-141.	5.2	41
17	Statistics of scalar dissipation and reaction progress in turbulent flames with compositional inhomogeneities. Combustion and Flame, 2018, 194, 439-451.	5.2	16
18	Multiple mapping conditioning coupled with an artificially thickened flame model for turbulent premixed combustion. Combustion and Flame, 2018, 196, 325-336.	5.2	8

#	ARTICLE	IF	CITATIONS
19	Turbulent flames with compositionally inhomogeneous inlets: Resolved measurements of scalar dissipation rates. Proceedings of the Combustion Institute, 2017, 36, 1737-1745.	3.9	22
20	On defining progress variable for Raman/Rayleigh experiments in partially-premixed methane flames. Combustion and Flame, 2017, 179, 117-129.	5.2	25
21	Multiple conditioned analysis of the turbulent stratified flame A. Proceedings of the Combustion Institute, 2017, 36, 1947-1955.	3.9	11
22	Dual-resolution Raman spectroscopy for measurements of temperature and twelve species in hydrocarbon-air flames. Proceedings of the Combustion Institute, 2017, 36, 4477-4485.	3.9	20
23	Scalar structure of turbulent stratified swirl flames conditioned on local equivalence ratio. Combustion and Flame, 2016, 166, 76-79.	5.2	6
24	Raman spectra of methane, ethylene, ethane, dimethyl ether, formaldehyde and propane for combustion applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 163, 80-101.	2.3	54
25	Interference free spontaneous Raman spectroscopy for measurements in rich hydrocarbon flames. Proceedings of the Combustion Institute, 2015, 35, 3765-3772.	3.9	32
26	Stabilization of piloted turbulent flames with inhomogeneous inlets. Proceedings of the Combustion Institute, 2015, 35, 1477-1484.	3.9	69
27	Quantitative acetylene measurements in laminar and turbulent flames using 1D Raman/Rayleigh scattering. Combustion and Flame, 2015, 162, 2248-2255.	5.2	14
28	Local extinction and near-field structure in piloted turbulent CH <sub>4</sub> /air jet flames with inhomogeneous inlets. Combustion and Flame, 2015, 162, 3516-3540.	5.2	94
29	Conditional analysis of turbulent premixed and stratified flames on local equivalence ratio and progress of reaction. Combustion and Flame, 2015, 162, 3896-3913.	5.2	33
30	Effects of high shear on the structure and thickness of turbulent premixed methane/air flames stabilized on a bluff-body burner. Combustion and Flame, 2015, 162, 100-114.	5.2	35
31	Multiply conditioned analyses of stratification in highly swirling methane/air flames. Combustion and Flame, 2013, 160, 322-334.	5.2	46
32	Effects of preferential transport and strain in bluff body stabilized lean and rich premixed CH <sub>4</sub> /air flames. Proceedings of the Combustion Institute, 2013, 34, 1411-1419.	3.9	34
33	Raman/Rayleigh scattering and CO-LIF measurements in laminar and turbulent jet flames of dimethyl ether. Combustion and Flame, 2012, 159, 2533-2562.	5.2	69
34	Effects of preferential transport in turbulent bluff-body-stabilized lean premixed CH <sub>4</sub> /air flames. Combustion and Flame, 2012, 159, 2563-2575.	5.2	129
35	The structure of turbulent stratified and premixed methane/air flames II: Swirling flows. Combustion and Flame, 2012, 159, 2912-2929.	5.2	136
36	The structure of turbulent stratified and premixed methane/air flames I: Non-swirling flows. Combustion and Flame, 2012, 159, 2896-2911.	5.2	136

#	ARTICLE	IF	CITATIONS
37	On the structure of the near field of oxy-fuel jet flames using Raman/Rayleigh laser diagnostics. Combustion and Flame, 2012, 159, 3342-3352.	5.2	29
38	The structure of premixed and stratified low turbulence flames. Combustion and Flame, 2011, 158, 935-948.	5.2	64
39	A hybrid method for data evaluation in 1-D Raman spectroscopy. Proceedings of the Combustion Institute, 2011, 33, 815-822.	3.9	59
40	Application of Raman/Rayleigh/LIF diagnostics in turbulent stratified flames. Proceedings of the Combustion Institute, 2009, 32, 945-953.	3.9	97
41	Spatial resolution effects on the measurement of scalar variance and scalar gradient in turbulent nonpremixed jet flames. Experiments in Fluids, 2008, 44, 633-645.	2.4	42
42	Dissipation length scales in turbulent nonpremixed jet flames. Combustion and Flame, 2007, 148, 62-75.	5.2	70
43	Laser diagnostics and their interplay with computations to understand turbulent combustion. Proceedings of the Combustion Institute, 2007, 31, 49-75.	3.9	211
44	Measurements of flame orientation and scalar dissipation in turbulent partially premixed methane flames. Proceedings of the Combustion Institute, 2005, 30, 665-672.	3.9	103
45	Measurements of Scalar Variance, Scalar Dissipation, and Length Scales in Turbulent Piloted Methane/Air Jet Flames. Flow, Turbulence and Combustion, 2004, 72, 427-448.	2.6	53
46	Laser imaging system for determination of three-dimensional scalar gradients in turbulent flames. Optics Letters, 2004, 29, 355.	3.3	28
47	Measurements of scalar dissipation in a turbulent piloted methane/air jet flame. Proceedings of the Combustion Institute, 2002, 29, 1929-1936.	3.9	126
48	Scalar profiles and NO formation in laminar opposed-flow partially premixed methane/air flames. Combustion and Flame, 2001, 127, 2102-2118.	5.2	441
49	Effects of turbulence on species mass fractions in methane/air jet flames. Proceedings of the Combustion Institute, 1998, 27, 1087-1095.	0.3	466
50	The structure of turbulent nonpremixed flames revealed by Raman-Rayleigh-LIF measurements. Progress in Energy and Combustion Science, 1996, 22, 307-362.	31.2	236
51	Measurements of no in turbulent non-premixed flames stabilized on a bluff body. Proceedings of the Combustion Institute, 1996, 26, 2191-2197.	0.3	27
52	Raman-rayleigh measurements in bluff-body stabilised flames of hydrocarbon fuels. Proceedings of the Combustion Institute, 1992, 24, 317-324.	0.3	16
53	Some raman/rayleigh/lif measurements in turbulent propane flames. Proceedings of the Combustion Institute, 1991, 23, 645-651.	0.3	8