# Bassam B Dally

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 127 papers | 6,024 citations | 66343 42 h-index | 76900 74 g-index |
| 127 all docs | 127 docs citations | 127 times ranked | 2042 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Structure of turbulent non-premixed jet flames in a diluted hot coflow. Proceedings of the Combustion Institute, 2002, 29, 1147-1154. | 3.9 | 367 |
| 2 | Modeling turbulent reacting jets issuing into a hot and diluted coflow. Combustion and Flame, 2005, 142, 117-129. | 5.2 | 318 |
| 3 | Performance Variations of Leading-Edge Tubercles for Distinct Airfoil Profiles. AIAA Journal, 2011, 49, 185-194. | 2.6 | 295 |
| 4 | Effect of fuel mixture on moderate and intense low oxygen dilution combustion. Combustion and Flame, 2004, 137, 418-431. | 5.2 | 221 |
| 5 | Instantaneous and Mean Compositional Structure of Bluff-Body Stabilized Nonpremixed Flames. Combustion and Flame, 1998, 114, 119-148. | 5.2 | 214 |
| 6 | Simultaneous imaging of OH, formaldehyde, and temperature of turbulent nonpremixed jet flames in a heated and diluted coflow. Combustion and Flame, 2007, 148, 48-61. | 5.2 | 197 |
| 7 | MILD oxy-combustion of gaseous fuels in a laboratory-scale furnace. Combustion and Flame, 2013, 160, 933-946. | 5.2 | 193 |
| 8 | Extension of the Eddy Dissipation Concept for turbulence/chemistry interactions to MILD combustion. Fuel, 2016, 163, 98-111. | 6.4 | 180 |
| 9 | Operational characteristics of a parallel jet MILD combustion burner system. Combustion and Flame, 2009, 156, 429-438. | 5.2 | 179 |
| 10 | Scaling of NOx emissions from a laboratory-scale mild combustion furnace. Combustion and Flame, 2008, 154, 281-295. | 5.2 | 140 |
| 11 | Imaging of diluted turbulent ethylene flames stabilized on a Jet in Hot Coflow (JHC) burner. Combustion and Flame, 2008, 152, 100-113. | 5.2 | 136 |
| 12 | Progress and recent trend in MILD combustion. Science China Technological Sciences, 2011, 54, 255-269. | 4.0 | 133 |
| 13 | Importance of Initial Momentum Rate and Air-Fuel Premixing on Moderate or Intense Low Oxygen Dilution (MILD) Combustion in a Recuperative Furnace. Energy & Fuels, 2009, 23, 5349-5356. | 5.1 | 123 |
| 14 | Solar thermal hybrids for combustion power plant: A growing opportunity. Progress in Energy and Combustion Science, 2018, 64, 4-28. | 31.2 | 110 |
| 15 | Evolution of the streamwise vortices generated between leading edge tubercles. Journal of Fluid Mechanics, 2016, 788, 730-766. | 3.4 | 99 |
| 16 | Conditional moment closure modeling of turbulent nonpremixed combustion in diluted hot coflow. Proceedings of the Combustion Institute, 2005, 30, 751-757. | 3.9 | 97 |
| 17 | Mechanisms of NO formation in MILD combustion of CH 4 /H 2 fuel blends. International Journal of Hydrogen Energy, 2014, 39, 19187-19203. | 7.1 | 95 |
| 18 | An experimental study on MILD combustion of prevaporised liquid fuels. Applied Energy, 2015, 151, 93-101. | 10.1 | 92 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Large-Eddy Simulation of a Jet-in-Hot-Coflow Burner Operating in the Oxygen-Diluted Combustion Regime. Flow, Turbulence and Combustion, 2012, 89, 449-464. | 2.6 | 87 |
| 20 | Effect of particle size on the MILD combustion characteristics of pulverised brown coal. Fuel Processing Technology, 2017, 155, 74-87. | 7.2 | 83 |
| 21 | Burning characteristics of Victorian brown coal under MILD combustion conditions. Combustion and Flame, 2016, 172, 252-270. | 5.2 | 82 |
| 22 | Investigation of the MILD combustion regime via Principal Component Analysis. Proceedings of the Combustion Institute, 2011, 33, 3333-3341. | 3.9 | 81 |
| 23 | Effects of hydrogen and nitrogen on soot volume fraction, primary particle diameter and temperature in laminar ethylene/air diffusion flames. Combustion and Flame, 2017, 175, 270-282. | 5.2 | 77 |
| 24 | Recent advances in the measurement of strongly radiating, turbulent reacting flows. Progress in Energy and Combustion Science, 2012, 38, 41-61. | 31.2 | 72 |
| 25 | Effect of a delta-winglet vortex pair on the performance of a tubeâ€“fin heat exchanger. International Journal of Heat and Mass Transfer, 2007, 50, 5065-5072. | 4.8 | 69 |
| 26 | Moderate or Intense Low-Oxygen Dilution Combustion of Methane Diluted by CO<sub>2</sub> and N<sub>2</sub>. Energy & Fuels, 2015, 29, 4576-4585. | 5.1 | 69 |
| 27 | On the Burning of Sawdust in a MILD Combustion Furnace. Energy & Fuels, 2010, 24, 3462-3470. | 5.1 | 67 |
| 28 | MILD Combustion under Different Premixing Patterns and Characteristics of the Reaction Regime. Energy & Fuels, 2014, 28, 2211-2226. | 5.1 | 61 |
| 29 | Effect of fuel composition on jet flames in a heated and diluted oxidant stream. Combustion and Flame, 2012, 159, 3138-3145. | 5.2 | 60 |
| 30 | Development of temperature imaging using two-line atomic fluorescence. Applied Optics, 2009, 48, 1237. | 2.1 | 57 |
| 31 | Experimental and computational study of soot evolution in a turbulent nonpremixed bluff body ethylene flame. Combustion and Flame, 2013, 160, 1298-1309. | 5.2 | 55 |
| 32 | Reaction Zone Weakening Effects under Hot and Diluted Oxidant Stream Conditions. Combustion Science and Technology, 2009, 181, 937-953. | 2.3 | 54 |
| 33 | Moderate or Intense Low Oxygen Dilution (MILD) Combustion Characteristics of Pulverized Coal in a Self-Recuperative Furnace. Energy & Fuels, 2014, 28, 6046-6057. | 5.1 | 53 |
| 34 | Simultaneous measurements of gas temperature, soot volume fraction and primary particle diameter in a sooting lifted turbulent ethylene/air non-premixed flame. Combustion and Flame, 2017, 179, 33-50. | 5.2 | 51 |
| 35 | Simultaneous planar measurements of temperature and soot volume fraction in a turbulent non-premixed jet flame. Proceedings of the Combustion Institute, 2015, 35, 1931-1938. | 3.9 | 50 |
| 36 | Experimental Observation of Lifted Flames in a Heated and Diluted Coflow. Energy & Fuels, 2012, 26, 5519-5527. | 5.1 | 49 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | LOx Jet Atomization Under Transverse Acoustic Oscillations. Journal of Propulsion and Power, 2014, 30, 337-349. | 2.2 | 48 |
| 38 | Premixed Moderate or Intense Low-Oxygen Dilution (MILD) Combustion from a Single Jet Burner in a Laboratory-Scale Furnace. Energy & Fuels, 2011, 25, 2782-2793. | 5.1 | 47 |
| 39 | Global reaction mechanisms for MILD oxy-combustion of methane. Energy, 2018, 147, 839-857. | 8.8 | 46 |
| 40 | Single-shot, Time-Resolved planar Laser-Induced Incandescence (TiRe-LII) for soot primary particle sizing in flames. Proceedings of the Combustion Institute, 2015, 35, 3673-3680. | 3.9 | 45 |
| 41 | A numerical investigation into the effects of Reynolds number on the flow mechanism induced by a tubercled leading edge. Theoretical and Computational Fluid Dynamics, 2017, 31, 1-32. | 2.2 | 45 |
| 42 | Numerical Study of Pulverized Coal MILD Combustion in a Self-Recuperative Furnace. Energy & Fuels, 2015, 29, 7650-7669. | 5.1 | 44 |
| 43 | The transition of ethanol flames from conventional to MILD combustion. Combustion and Flame, 2016, 171, 173-184. | 5.2 | 43 |
| 44 | Probability density function computations of a strongly swirling nonpremixed flame stabilized on a new burner. Proceedings of the Combustion Institute, 2000, 28, 123-131. | 3.9 | 42 |
| 45 | Effect of co-flow oxygen concentration on the MILD combustion of pulverised coal. Fuel Processing Technology, 2019, 193, 7-18. | 7.2 | 42 |
| 46 | Simultaneous imaging of temperature and soot volume fraction. Proceedings of the Combustion Institute, 2011, 33, 791-798. | 3.9 | 41 |
| 47 | Modified Vitiation in a Moderate or Intense Low-Oxygen Dilution (MILD) Combustion Furnace. Energy & Fuels, 2012, 26, 265-277. | 5.1 | 41 |
| 48 | Characteristics of turbulent n-heptane jet flames in a hot and diluted coflow. Combustion and Flame, 2017, 183, 330-342. | 5.2 | 40 |
| 49 | The effect of oxygen concentration in the co-flow of laminar ethylene diffusion flames. Combustion and Flame, 2020, 211, 96-111. | 5.2 | 40 |
| 50 | Coupling of Cryogenic Oxygenâ€“Hydrogen Flames to Longitudinal and Transverse Acoustic Instabilities. Journal of Propulsion and Power, 2014, 30, 991-1004. | 2.2 | 39 |
| 51 | 3D framework combining CFD and MATLAB techniques for plume source localization research. Building and Environment, 2013, 70, 10-19. | 6.9 | 37 |
| 52 | The effect of arrangement of two circular cylinders on the maximum efficiency of Vortex-Induced Vibration power using a Scale-Adaptive Simulation model. Journal of Fluids and Structures, 2014, 49, 654-666. | 3.4 | 34 |
| 53 | Research challenges in combustion and gasification arising from emerging technologies employing directly irradiated concentrating solar thermal radiation. Proceedings of the Combustion Institute, 2017, 36, 2055-2074. | 3.9 | 34 |
| 54 | Experimental investigation of acoustic forcing on temperature, soot volume fraction and primary particle diameter in non-premixed laminar flames. Combustion and Flame, 2017, 181, 270-282. | 5.2 | 31 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | The effect of exit Reynolds number on soot volume fraction in turbulent non-premixed jet flames. Combustion and Flame, 2018, 187, 42-51. | 5.2 | 30 |
| 56 | Hydrodynamic and chemical effects of hydrogen addition on soot evolution in turbulent nonpremixed bluff body ethylene flames. Proceedings of the Combustion Institute, 2017, 36, 807-814. | 3.9 | 29 |
| 57 | Turbulent Shear Stress Effects on Plant Cell Suspension Cultures. Chemical Engineering Research and Design, 2001, 79, 867-875. | 5.6 | 28 |
| 58 | The role of precursors on the stabilisation of jet flames issuing into a hot environment. Combustion and Flame, 2014, 161, 465-474. | 5.2 | 28 |
| 59 | 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 |
| 60 | Two-photon laser-induced fluorescence measurement of CO in turbulent non-premixed bluff body flames. Combustion and Flame, 2003, 132, 272-274. | 5.2 | 25 |
| 61 | Structural differences of ethanol and DME jet flames in a hot diluted coflow. Combustion and Flame, 2018, 192, 473-494. | 5.2 | 25 |
| 62 | The influence on the soot distribution within a laminar flame of radiation at fluxes of relevance to concentrated solar radiation. Combustion and Flame, 2011, 158, 1814-1821. | 5.2 | 24 |
| 63 | Temperature measurements in turbulent non-premixed flames by two-line atomic fluorescence. Proceedings of the Combustion Institute, 2013, 34, 3619-3627. | 3.9 | 23 |
| 64 | Improvement of precision and accuracy of temperature imaging in sooting flames using two-line atomic fluorescence (TLAF). Combustion and Flame, 2016, 167, 481-493. | 5.2 | 23 |
| 65 | Experimental demonstration of the hybrid solar receiver combustor. Applied Energy, 2018, 224, 426-437. | 10.1 | 23 |
| 66 | Influence of nozzle diameter on soot evolution in acoustically forced laminar non-premixed flames. Combustion and Flame, 2018, 194, 376-386. | 5.2 | 23 |
| 67 | Assessment of the potential benefits and constraints of a hybrid solar receiver and combustor operated in the MILD combustion regime. Energy, 2016, 116, 735-745. | 8.8 | 21 |
| 68 | Analytical assessment of a novel hybrid solar tubular receiver and combustor. Applied Energy, 2016, 162, 298-307. | 10.1 | 21 |
| 69 | Comparison of system performance in a hybrid solar receiver combustor operating with MILD and conventional combustion. Part II: Effect of the combustion mode. Solar Energy, 2017, 147, 479-488. | 6.1 | 21 |
| 70 | Instantaneous Temperature Imaging of Diffusion Flames Using Two-Line Atomic Fluorescence. Applied Spectroscopy, 2010, 64, 173-176. | 2.2 | 20 |
| 71 | Global characteristics of non-premixed jet flames of hydrogenâ€“hydrocarbon blended fuels. Combustion and Flame, 2015, 162, 1326-1335. | 5.2 | 20 |
| 72 | Comparison of system performance in a hybrid solar receiver combustor operating with MILD and conventional combustion. Part I: Solar-only and combustion-only employing conventional combustion. Solar Energy, 2017, 147, 489-503. | 6.1 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Experimental investigation of the effects of wind speed and yaw angle on heat losses from a heated cavity. Solar Energy, 2018, 165, 178-188. | 6.1 | 20 |
| 74 | Temperature and reaction zone imaging in turbulent swirling dual-fuel flames. Proceedings of the Combustion Institute, 2019, 37, 2159-2166. | 3.9 | 20 |
| 75 | The instantaneous spatial structure of the recirculation zone in bluff-body stabilized flames. Proceedings of the Combustion Institute, 1998, 27, 1031-1038. | 0.3 | 19 |
| 76 | Experimental investigation of soot evolution in a turbulent non-premixed prevaporized toluene flame. Proceedings of the Combustion Institute, 2019, 37, 849-857. | 3.9 | 19 |
| 77 | Thermal performance analysis of a syngas-fuelled hybrid solar receiver combustor operated in the MILD combustion regime. Combustion Science and Technology, 2019, 191, 2-17. | 2.3 | 19 |
| 78 | Solvent effects on two-line atomic fluorescence of indium. Applied Optics, 2010, 49, 1257. | 2.1 | 18 |
| 79 | Flame response to acoustic excitation in a rectangular rocket combustor with LOx/H2 propellants. CEAS Space Journal, 2011, 2, 41-49. | 2.3 | 18 |
| 80 | Flow seeding with elemental metal species via an optical method. Applied Physics B: Lasers and Optics, 2012, 107, 665-668. | 2.2 | 18 |
| 81 | Temperature imaging of turbulent dilute spray flames using two-line atomic fluorescence. Experiments in Fluids, 2014, 55, 1. | 2.4 | 18 |
| 82 | Investigation of NOx conversion characteristics in a porous medium. Combustion and Flame, 2008, 152, 604-615. | 5.2 | 17 |
| 83 | Assessment of interferences to nonlinear two-line atomic fluorescence (NTLAF) in sooty flames. Applied Physics B: Lasers and Optics, 2011, 104, 189-198. | 2.2 | 17 |
| 84 | Downstream evolution of n-heptane/toluene flames in hot and vitiated coflows. Combustion and Flame, 2019, 202, 78-89. | 5.2 | 17 |
| 85 | An experimental study of the stability and performance characteristics of a Hybrid Solar Receiver Combustor operated in the MILD combustion regime. Proceedings of the Combustion Institute, 2019, 37, 5687-5695. | 3.9 | 16 |
| 86 | New Seeding Methodology for Gas Concentration Measurements. Applied Spectroscopy, 2012, 66, 803-809. | 2.2 | 15 |
| 87 | Effect of a rigid wall on the vortex induced vibration of two staggered circular cylinders. Journal of Renewable and Sustainable Energy, 2014, 6, . | 2.0 | 15 |
| 88 | Comparative Study of the MILD Combustion Characteristics of Biomass and Brown Coal. Energy & Fuels, 2018, 32, 4202-4211. | 5.1 | 15 |
| 89 | Soot evolution and flame response to acoustic forcing of laminar non-premixed jet flames at varying amplitudes. Combustion and Flame, 2018, 198, 249-259. | 5.2 | 15 |
| 90 | LES/TPDF investigation of the role of reaction and diffusion timescales in the stabilization of a jet-in-hot-coflow CH4/H2 flame. Combustion and Flame, 2020, 211, 477-492. | 5.2 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Combustion dynamics in cryogenic rocket engines: Research programme at DLR Lampoldshausen. Acta Astronautica, 2018, 147, 251-258. | 3.2 | 13 |
| 92 | Combined solar energy and combustion of hydrogen-based fuels under MILD conditions. International Journal of Hydrogen Energy, 2018, 43, 20086-20100. | 7.1 | 13 |
| 93 | Simultaneously calibrated two-line atomic fluorescence for high-precision temperature imaging in sooting flames. Proceedings of the Combustion Institute, 2019, 37, 1417-1425. | 3.9 | 12 |
| 94 | Experimental and numerical study of the influence of syngas composition on the performance and stability of a laboratory-scale MILD combustor. Experimental Thermal and Fluid Science, 2020, 115, 110083. | 2.7 | 12 |
| 95 | The influence of high flux broadband irradiation on soot concentration and temperature of a sooty flame. Combustion and Flame, 2016, 171, 103-111. | 5.2 | 11 |
| 96 | Iso-thermal flow characteristics of rotationally symmetric jets generating a swirl within a cylindrical chamber. Physics of Fluids, 2018, 30, 055110. | 4.0 | 11 |
| 97 | Flow dynamics of multi-lateral jets injection into a round pipe flow. Experiments in Fluids, 2015, 56, 1. | 2.4 | 10 |
| 98 | Experimental and numerical investigation of the iso-thermal flow characteristics within a cylindrical chamber with multiple planar-symmetric impinging jets. Physics of Fluids, 2017, 29, 105111. | 4.0 | 10 |
| 99 | Experimental and numerical study of transcritical oxygen-hydrogen rocket flame response to transverse acoustic excitation. Proceedings of the Combustion Institute, 2021, 38, 5979-5986. | 3.9 | 7 |
| 100 | Power efficiency estimation of an inductive plasma generator using propellant mixtures of oxygen, carbon-dioxide and argon. Acta Astronautica, 2021, 179, 536-545. | 3.2 | 7 |
| 101 | Study of LOx/H2 Spray Flame Response to Acoustic Excitation in a Rectangular Rocket Combustor. , 2013, , . | | 6 |
| 102 | The influence of aspect ratio on the iso-thermal flow characteristics of multiple confined jets. Physics of Fluids, 2018, 30, 125108. | 4.0 | 6 |
| 103 | A new correlation between soot sheet width and soot volume fraction in turbulent non-premixed jet flames. Proceedings of the Combustion Institute, 2019, 37, 927-934. | 3.9 | 6 |
| 104 | Soot-flowfield interactions in turbulent non-premixed bluff-body flames of ethylene/nitrogen. Proceedings of the Combustion Institute, 2021, 38, 1125-1132. | 3.9 | 6 |
| 105 | Characteristics of swirling and precessing flows generated by multiple confined jets. Physics of Fluids, 2019, 31, 055102. | 4.0 | 5 |
| 106 | Resolving transient discharge cycle behaviour in modulated inductive plasmas. Vacuum, 2020, 182, 109636. | 3.5 | 5 |
| 107 | Generating planar distributions of soot particles from luminosity images in turbulent flames using deep learning. Applied Physics B: Lasers and Optics, 2021, 127, 1. | 2.2 | 5 |
| 108 | Beam displacement as a function of temperature and turbulence length scale at two different laser radiation wavelengths. Applied Optics, 2012, 51, 55. | 1.8 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Acoustic characterisation of a rectangular rocket combustor with liquid oxygen and hydrogen propellants. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 436-446. | 1.3 | 4 |
| 110 | Calculated concentration distributions and time histories of key species in an acoustically forced laminar flame. Combustion and Flame, 2019, 204, 189-203. | 5.2 | 4 |
| 111 | Experimental investigation of the influence of solar-to-fuel ratio on performance and stability characteristics of hybrid solar-MILD hydrogen processes. Proceedings of the Combustion Institute, 2021, 38, 6723-6731. | 3.9 | 3 |
| 112 | Statistical relationship between soot volume fraction, temperature, primary particle diameter and OH radicals along transects normal to the local reaction zone in a turbulent flame. Proceedings of the Combustion Institute, 2021, 38, 1497-1505. | 3.9 | 3 |
| 113 | Experimental investigation on the influence of an air curtain on the convective heat losses from solar cavity receivers under windy condition. AIP Conference Proceedings, 2020, , . | 0.4 | 3 |
| 114 | Propagation of 632.8 nm and 4.67 Ã‚Âµm laser beams in a turbulent flow containing CO 2 and H 2 O at high temperatures. Proceedings of SPIE, 2008, , . | 0.8 | 2 |
| 115 | Coupling Behaviour of LOx/H2 Flames to Longitudinal and Transverse Acoustic Instabilities. , 2012, , . | | 2 |
| 116 | The effect of surface reactions on the prediction of NOX conversion efficiency in a porous burner. Combustion and Flame, 2013, 160, 2169-2181. | 5.2 | 2 |
| 117 | On the interaction of turbulence intensity and its scales with various diameter laser beams at high temperatures. , 2008, , . | | 1 |
| 118 | Optical thermometry for high temperature multiphase environments under high-flux irradiation. Solar Energy, 2017, 146, 191-198. | 6.1 | 1 |
| 119 | Performance of a hybrid solar receiver combustor. AIP Conference Proceedings, 2018, , . | 0.4 | 1 |
| 120 | Performance characteristics of a hybrid solar receiver combustor utilising hydrogen or syngas. AIP Conference Proceedings, 2019, , . | 0.4 | 1 |
| 121 | Hybrid Solar-MILD Combustion for Renewable Energy Generation. Frontiers in Mechanical Engineering, 2019, 5, . | 1.8 | 1 |
| 122 | Energy Concentration by Bluff Bodiesâ€"A Particle Image Velocimetry Investigation. Journal of Fluids Engineering, Transactions of the ASME, 2019, 141, . | 1.5 | 1 |
| 123 | CFD Analysis of the Tigerfish Retractable Float System on a DHC- Twin Otter. SAE International Journal of Aerospace, 0, 1, 619-629. | 4.0 | 0 |
| 124 | Experimental and numerical study of oxygen-hydrogen rocket flame response to transverse acoustic excitation. , 2018, , . | | 0 |
| 125 | Optics and Photonics in Solar Thermal Energy Technologies. , 2014, , . | | 0 |
| 126 | First-of-a-kind demonstration of a direct hybrid between a solar receiver and the radiant burner technology. AIP Conference Proceedings, 2020, , . | 0.4 | 0 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 127 | Model for Estimating Time-Varying Properties of an Inductively Coupled Plasma. IEEE Transactions on Plasma Science, 2022, 50, 1227-1236. | 1.3 | 0 |