# Christian Hasse

List of Publications by Year
in descending order

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| 204 | 4,790 | 109137 | 155451 |
|---|---|---|---|
| papers | citations | 35 h-index | 55 g-index |

| 208 | 208 | 208 | 2158 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Numerical and experimental study on knocking combustion in turbocharged direct-injection engines for a wide range of operating conditions. International Journal of Engine Research, 2023, 24, 652-671. | 1.4 | 2 |
| 2 | Numerical investigation and assessment of flamelet-based models for the prediction of pulverized solid fuel homogeneous ignition and combustion. Combustion and Flame, 2022, 235, 111693. | 2.8 | 11 |
| 3 | Numerical and experimental investigations of the early injection process of Spray G in a constant volume chamber and an optically accessible DISI engine. International Journal of Engine Research, 2022, 23, 2073-2093. | 1.4 | 4 |
| 4 | Detailed assessment of the thermochemistry in a side-wall quenching burner by simultaneous quantitative measurement of CO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si7.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>, CO and temperature using laser diagnostics. Combustion and Flame, 2022, 235, 111707. | 2.8 | 14 |
| 5 | Flame structure analysis and composition space modeling of thermodiffusively unstable premixed hydrogen flames â€" Part II: Elevated pressure. Combustion and Flame, 2022, 238, 111808. | 2.8 | 8 |
| 6 | Flame structure analysis and composition space modeling of thermodiffusively unstable premixed hydrogen flames â€" Part I: Atmospheric pressure. Combustion and Flame, 2022, 238, 111815. | 2.8 | 10 |
| 7 | Soot Prediction in a Model Aero-Engine Combustor using a Quadrature-based Method of Moments. , 2022, , . | | 0 |
| 8 | Turbulent flame-wall interaction of premixed flames using Quadrature-based Moment Methods (QbMM) and tabulated chemistry: An a priori analysis. International Journal of Heat and Fluid Flow, 2022, 93, 108913. | 1.1 | 5 |
| 9 | Characterization of flow field and combustion dynamics in a novel pressurized side-wall quenching burner using high-speed PIV/OH-PLIF measurements. International Journal of Heat and Fluid Flow, 2022, 94, 108921. | 1.1 | 10 |
| 10 | Ignition under strained conditions: Unsteady flamelet progress variable modeling for diesel engine conditions in the transient counterflow configuration. Combustion and Flame, 2022, 240, 111841. | 2.8 | 7 |
| 11 | The role of hydrogen for future internal combustion engines. International Journal of Engine Research, 2022, 23, 529-540. | 1.4 | 95 |
| 12 | Two-Phase Flow Simulations of Liquid/Gas Transport in Radial Centrifugal Pumps With Special Emphasis on the Transition From Bubbles to Adherent Gas Accumulations. Journal of Fluids Engineering, Transactions of the ASME, 2022, 144, . | 0.8 | 7 |
| 13 | Flamelet LES of swirl-stabilized oxy-fuel flames using directly coupled multi-step solid fuel kinetics. Combustion and Flame, 2022, 241, 112062. | 2.8 | 6 |
| 14 | Evaluation of the unsteady flamelet progress variable approach in Large Eddy Simulations of the ECN Spray A. , 2022, 77, 5. | | 3 |
| 15 | Flamelet modeling of forced ignition and flame propagation in hydrogen-air mixtures. Combustion and Flame, 2022, 243, 112125. | 2.8 | 10 |
| 16 | Iron as a sustainable chemical carrier of renewable energy: Analysis of opportunities and challenges for retrofitting coal-fired power plants. Renewable and Sustainable Energy Reviews, 2022, 165, 112579. | 8.2 | 45 |
| 17 | Effect of oxymethylene ether-2-3-4 (OME2-4) on soot particle formation and chemical features. Fuel, 2022, 324, 124617. | 3.4 | 10 |
| 18 | Soot particle size distribution reconstruction in a turbulent sooting flame with the split-based extended quadrature method of moments. Physics of Fluids, 2022, 34, . | 1.6 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A Gauss/anti-Gauss quadrature method of moments applied to population balance equations with turbulence-induced nonlinear phase-space diffusion. Journal of Computational Physics, 2022, 466, 111363. | 1.9 | 3 |
| 20 | Experimental and numerical study on the effect of oxymethylene ether-3 (OME3) on soot particle formation. Fuel, 2021, 286, 119353. | 3.4 | 34 |
| 21 | Ignition Under Strained Conditions: A Comparison Between Instationary Counterflow and Non-premixed Flamelet Solutions. Flow, Turbulence and Combustion, 2021, 106, 1277-1293. | 1.4 | 2 |
| 22 | Strain Rate Effects on Head-on Quenching of Laminar Premixed Methane-air flames. Flow, Turbulence and Combustion, 2021, 106, 631-647. | 1.4 | 11 |
| 23 | Premixed flames for arbitrary combinations of strain and curvature. Proceedings of the Combustion Institute, 2021, 38, 2031-2039. | 2.4 | 12 |
| 24 | Thermal and chemical effects of differential diffusion in turbulent non-premixed H2 flames. Proceedings of the Combustion Institute, 2021, 38, 2627-2634. | 2.4 | 17 |
| 25 | Numerical investigation of pulverized coal particle group combustion using tabulated chemistry. Proceedings of the Combustion Institute, 2021, 38, 4033-4041. | 2.4 | 13 |
| 26 | Catalytic influence of mineral compounds on the reactivity of cellulose-derived char in O2-, CO2-, and H2O-containing atmospheres. Fuel, 2021, 287, 119584. | 3.4 | 7 |
| 27 | Numerical investigation of swirl-stabilized pulverized coal flames in air and oxy-fuel atmospheres by means of large eddy simulation coupled with tabulated chemistry. Fuel, 2021, 287, 119429. | 3.4 | 12 |
| 28 | Calibration and validation of a comprehensive kinetic model of coal conversion in inert, air and oxy-fuel conditions using data from multiple test rigs. Fuel, 2021, 290, 119682. | 3.4 | 7 |
| 29 | Effects of air and oxy-fuel atmospheres on flamelet modeling of pollutant formation in laminar counterflow solid fuel flames. Fuel, 2021, 285, 119079. | 3.4 | 3 |
| 30 | Investigation of the ignition processes of a multi-injection flame in a Diesel engine environment using the flamelet model. Proceedings of the Combustion Institute, 2021, 38, 5605-5613. | 2.4 | 6 |
| 31 | Detailed analysis of early-stage NO formation in turbulent pulverized coal combustion with fuel-bound nitrogen. Proceedings of the Combustion Institute, 2021, 38, 4111-4119. | 2.4 | 9 |
| 32 | Large eddy simulation of Cambridge bluff-body coal (CCB2) flames with a flamelet progress variable model. Proceedings of the Combustion Institute, 2021, 38, 5347-5354. | 2.4 | 2 |
| 33 | Assessing multi-regime combustion in a novel burner configuration with large eddy simulations using tabulated chemistry. Proceedings of the Combustion Institute, 2021, 38, 2551-2558. | 2.4 | 21 |
| 34 | Evaluation of Quadrature-based Moment Methods in turbulent premixed combustion. Proceedings of the Combustion Institute, 2021, 38, 2877-2884. | 2.4 | 5 |
| 35 | Flame structure analysis of turbulent premixed/stratified flames with H2 addition considering differential diffusion and stretch effects. Proceedings of the Combustion Institute, 2021, 38, 2993-3001. | 2.4 | 13 |
| 36 | A Wall-Adapted Anisotropic Heat Flux Model for Large Eddy Simulations of Complex Turbulent Thermal Flows. Flow, Turbulence and Combustion, 2021, 106, 733-752. | 1.4 | 3 |

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|---|---|---|---|
| 37 | Numerical Study of Quenching Distances for Side-Wall Quenching Using Detailed Diffusion and Chemistry. Flow, Turbulence and Combustion, 2021, 106, 649-679. | 1.4 | 38 |
| 38 | A phenomenological modelling framework for particle emission simulation in a direct-injection gasoline engine. International Journal of Engine Research, 2021, 22, 1166-1179. | 1.4 | 9 |
| 39 | Characterization of multi-regime reaction zones in a piloted inhomogeneous jet flame with local extinction. Proceedings of the Combustion Institute, 2021, 38, 2571-2579. | 2.4 | 5 |
| 40 | Flamelet LES of a swirl-stabilized multi-stream pulverized coal burner in air and oxy-fuel atmospheres with pollutant formation. Proceedings of the Combustion Institute, 2021, 38, 4141-4149. | 2.4 | 15 |
| 41 | Numerical Analysis of a Turbulent Pulverized Coal Flame Using a Flamelet/Progress Variable Approach and Modeling Experimental Artifacts. Energy & Fuels, 2021, 35, 7133-7143. | 2.5 | 10 |
| 42 | Systematic evaluation and kinetic modeling of low heating rate sulfur release in various atmospheres. Fuel, 2021, 289, 119739. | 3.4 | 4 |
| 43 | Non-equilibrium wall functions for large Eddy simulations of complex turbulent flows and heat transfer. International Journal of Heat and Fluid Flow, 2021, 88, 108758. | 1.1 | 10 |
| 44 | Carrier-phase DNS of detailed NOx formation in early-stage pulverized coal combustion with fuel-bound nitrogen. Fuel, 2021, 291, 119998. | 3.4 | 13 |
| 45 | Simulation of side-wall quenching of laminar premixed flames with manifold-based reduced kinetic models implemented in generalised coordinates. Combustion Theory and Modelling, 2021, 25, 669-694. | 1.0 | 4 |
| 46 | Numerical Investigation on the Effect of the Oxymethylene Ether-3 (OME3) Blending Ratio in Premixed Sooting Ethylene Flames. Frontiers in Mechanical Engineering, 2021, 7, . | 0.8 | 5 |
| 47 | Flamelet LES of turbulent premixed/stratified flames with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.svg"><mml:msub><mml:mrow><mml:mi mathvariant="normal">H</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> addition. Combustion and Flame, 2021, 230, 111428. | 2.8 | 13 |
| 48 | Advanced modeling approaches for CFD simulations of coal combustion and gasification. Progress in Energy and Combustion Science, 2021, 86, 100938. | 15.8 | 45 |
| 49 | A Predictive Physico-chemical Model of Biochar Oxidation. Energy & Fuels, 2021, 35, 14894-14912. | 2.5 | 7 |
| 50 | Effects of stretch-chemistry interaction on chemical pathways for strained and curved hydrogen/air premixed flames. Combustion and Flame, 2021, 232, 111532. | 2.8 | 12 |
| 51 | Chemistry effects in the wall quenching of laminar premixed DME flames. Combustion and Flame, 2021, 232, 111529. | 2.8 | 8 |
| 52 | Vapor pressures and latent heats of vaporization of Poly(oxymethylene) Dimethyl Ethers (OME3 and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 3.4 | 12 |
| 53 | Experimental and modeling assessment of sulfur release from coal under low and high heating rates. Proceedings of the Combustion Institute, 2021, 38, 4053-4061. | 2.4 | 11 |
| 54 | Investigation of Turbulent Pulverized Solid Fuel Combustion with Detailed Homogeneous and Heterogeneous Kinetics. Energy & Fuels, 2021, 35, 7077-7091. | 2.5 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | On Spray Modeling with Quadratureâ€Based Moment Methods. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000314. | 0.2 | 0 |
| 56 | Numerical Investigation of Local Heat-Release Rates and Thermo-Chemical States in Side-Wall Quenching of Laminar Methane and Dimethyl Ether Flames. Flow, Turbulence and Combustion, 2021, 106, 681-700. | 1.4 | 18 |
| 57 | Development and Application of an Efficient Chemical Reactor Network Model for Oxy-fuel Combustion. Energy & Fuels, 2021, 35, 7121-7132. | 2.5 | 10 |
| 58 | Large-eddy simulation of a multi-injection flame in a diesel engine environment using an unsteady flamelet/progress variable approach. Physics of Fluids, 2021, 33, . | 1.6 | 6 |
| 59 | A comprehensive study of flamelet tabulation methods for pulverized coal combustion in a turbulent mixing layer â€" Part I: A priori and budget analyses. Combustion and Flame, 2020, 216, 439-452. | 2.8 | 16 |
| 60 | IJER editorial: The future of the internal combustion engine. International Journal of Engine Research, 2020, 21, 3-10. | 1.4 | 457 |
| 61 | twoWayGPBEFoam: An open-source Eulerian QBMM solver for monokinetic bubbly flows. Computer Physics Communications, 2020, 250, 107036. | 3.0 | 9 |
| 62 | Effects of Soret diffusion on turbulent non-premixed H2 jet flames. Combustion and Flame, 2020, 213, 39-51. | 2.8 | 10 |
| 63 | Effect of Flame-Wall Interaction on Local Heat Release of Methane and DME Combustion in a Side-Wall Quenching Geometry. Flow, Turbulence and Combustion, 2020, 104, 1029-1046. | 1.4 | 37 |
| 64 | An experimental and numerical study on the combustion of lignites from different geographic origins. Fuel, 2020, 278, 118320. | 3.4 | 7 |
| 65 | Can Small Polyaromatics Describe Their Larger Counterparts for Local Reactions? A Computational Study on the H-Abstraction Reaction by an H-Atom from Polyaromatics. Journal of Physical Chemistry A, 2020, 124, 9626-9637. | 1.1 | 8 |
| 66 | Derivation and analysis of two-dimensional composition space equations for multi-regime combustion using orthogonal coordinates. Combustion and Flame, 2020, 218, 205-217. | 2.8 | 7 |
| 67 | Machine learning for predictive coal combustion CFD simulationsâ€"From detailed kinetics to HDMR Reduced-Order models. Fuel, 2020, 274, 117720. | 3.4 | 15 |
| 68 | Combustion regime identification from machine learning trained by Raman/Rayleigh line measurements. Combustion and Flame, 2020, 219, 268-274. | 2.8 | 26 |
| 69 | Flamelet tabulation methods for SOx formation in pulverized solid fuel combustion. Combustion and Flame, 2020, 218, 150-167. | 2.8 | 4 |
| 70 | A comprehensive study of flamelet tabulation methods for pulverized coal combustion in a turbulent mixing layerâ€"Part II: Strong heat losses and multi-mode combustion. Combustion and Flame, 2020, 216, 453-467. | 2.8 | 11 |
| 71 | Large Eddy Simulation of a laboratory-scale gas-assisted pulverized coal combustion chamber under oxy-fuel atmospheres using tabulated chemistry. Fuel, 2020, 272, 117683. | 3.4 | 18 |
| 72 | Kinetic Modeling of Solid, Liquid and Gas Biofuel Formation from Biomass Pyrolysis. Biofuels and Biorefineries, 2020, , 31-76. | 0.5 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Analysis of Gas-Assisted Pulverized Coal Combustion in Cambridge Coal Burner CCB1 Using FPV-LES. Energy & Fuels, 2020, 34, 7477-7489. | 2.5 | 5 |
| 74 | Experimental and numerical investigation of a stagnation pulverised coal flame. Proceedings of the Combustion Institute, 2019, 37, 2857-2866. | 2.4 | 12 |
| 75 | The role of tangential diffusion in evaluating the performance of flamelet models. Proceedings of the Combustion Institute, 2019, 37, 1767-1774. | 2.4 | 14 |
| 76 | Large eddy simulation/dynamic thickened flame modeling of a high Karlovitz number turbulent premixed jet flame. Proceedings of the Combustion Institute, 2019, 37, 2555-2563. | 2.4 | 38 |
| 77 | 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. | 2.4 | 19 |
| 78 | Zero-flux approximations for multivariate quadrature-based moment methods. Journal of Computational Physics, 2019, 398, 108879. | 1.9 | 2 |
| 79 | Flamelet tabulation methods for solid fuel combustion with fuel-bound nitrogen. Combustion and Flame, 2019, 209, 155-166. | 2.8 | 17 |
| 80 | Multi-dimensional and transient effects on flamelet modeling for turbulent pulverized coal combustion. Fuel, 2019, 255, 115772. | 3.4 | 6 |
| 81 | Closure of the scalar dissipation rate in the spray flamelet equations through a transport equation for the gradient of the mixture fraction. Combustion and Flame, 2019, 208, 330-350. | 2.8 | 7 |
| 82 | Fully coupled control of a spark-ignited engine in driving cycle simulations. Automotive and Engine Technology, 2019, 4, 125-137. | 0.7 | 2 |
| 83 | Comparison of Eulerian QBMM and classical Eulerianâ€“Eulerian method for the simulation of polydisperse bubbly flows. AICHE Journal, 2019, 65, e16732. | 1.8 | 12 |
| 84 | A self-contained composition space solution method for strained and curved premixed flamelets. Combustion and Flame, 2019, 207, 342-355. | 2.8 | 19 |
| 85 | Assessing an experimental approach for chemical explosive mode and heat release rate using DNS data. Combustion and Flame, 2019, 209, 214-224. | 2.8 | 11 |
| 86 | Local flame structure analysis in turbulent CH4/air flames with multi-regime characteristics. Combustion and Flame, 2019, 210, 426-438. | 2.8 | 43 |
| 87 | An extended artificial thickening approach for strained premixed flames. Combustion and Flame, 2019, 206, 252-265. | 2.8 | 10 |
| 88 | Influence of flow topology and scalar structure on flame-tangential diffusion in turbulent non-premixed combustion. Combustion and Flame, 2019, 206, 21-36. | 2.8 | 12 |
| 89 | Numerical and experimental investigation of the laminar burning velocity of biofuels at atmospheric and high-pressure conditions. Fuel, 2019, 247, 250-256. | 3.4 | 11 |
| 90 | Detailed simulations for flamelet modelling of SO x formation from coal. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900367. | 0.2 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | A self-contained progress variable space solution method for thermochemical variables and flame speed in freely-propagating premixed flamelets. Proceedings of the Combustion Institute, 2019, 37, 1529-1536. | 2.4 | 20 |
| 92 | Evaluation of a flamelet/progress variable approach for pulverized coal combustion in a turbulent mixing layer. Proceedings of the Combustion Institute, 2019, 37, 2927-2934. | 2.4 | 31 |
| 93 | Scale-resolving Simulations for Combustion Process Development. MTZ Worldwide, 2019, 80, 62-67. | 0.1 | 5 |
| 94 | Flame Structure Analysis and Flamelet/Progress Variable Modelling of DME/Air Flames with Different Degrees of Premixing. Flow, Turbulence and Combustion, 2019, 102, 757-773. | 1.4 | 1 |
| 95 | Fully-resolved simulations of coal particle combustion using a detailed multi-step approach for heterogeneous kinetics. Fuel, 2019, 240, 75-83. | 3.4 | 40 |
| 96 | A numerically robust method of moments with number density function reconstruction and its application to soot formation, growth and oxidation. Journal of Aerosol Science, 2019, 128, 34-49. | 1.8 | 26 |
| 97 | Wall heat fluxes and CO formation/oxidation during laminar and turbulent side-wall quenching of methane and DME flames. International Journal of Heat and Fluid Flow, 2018, 70, 181-192. | 1.1 | 55 |
| 98 | Large Eddy Simulation with tabulated chemistry of an experimental sidewall quenching burner. International Journal of Heat and Fluid Flow, 2018, 71, 95-110. | 1.1 | 14 |
| 99 | Detailed modeling of soot particle formation and comparison to optical diagnostics and size distribution measurements in premixed flames using a method of moments. Fuel, 2018, 222, 287-293. | 3.4 | 22 |
| 100 | A comparative study of intake and exhaust port modeling strategies for scale-resolving engine simulations. International Journal of Engine Research, 2018, 19, 282-292. | 1.4 | 33 |
| 101 | A phenomenological mixture homogenization model for spark-ignition direct-injection engines. International Journal of Engine Research, 2018, 19, 168-178. | 1.4 | 2 |
| 102 | A physical-based approach for modeling cycle-to-cycle variations within a zero-dimensional/one-dimensional simulation environment. International Journal of Engine Research, 2018, 19, 55-66. | 1.4 | 4 |
| 103 | A Computationally Efficient Implementation of Tabulated Combustion Chemistry based on Polynomials and Automatic Source Code Generation. Flow, Turbulence and Combustion, 2018, 100, 119-146. | 1.4 | 6 |
| 104 | Regime identification from Raman/Rayleigh line measurements in partially premixed flames. Combustion and Flame, 2018, 189, 126-141. | 2.8 | 41 |
| 105 | A Large Eddy Simulation Study on the Effect of Devolatilization Modelling and Char Combustion Mode Modelling on the Structure of a Large-Scale, Biomass and Coal Co-Fired Flame. Journal of Combustion, 2018, 2018, 1-15. | 0.5 | 10 |
| 106 | Strategies to Define Surrogate Fuels for the Description of the Multicomponent Evaporation Behavior of Hydrocarbon Fuels. , 2018, , . | | 4 |
| 107 | Investigation of the Turbulent Near Wall Flame Behavior for a Sidewall Quenching Burner by Means of a Large Eddy Simulation and Tabulated Chemistry. Fluids, 2018, 3, 65. | 0.8 | 4 |
| 108 | The impact of thermal diffusion on the structure of non-premixed flames. Combustion and Flame, 2018, 194, 352-362. | 2.8 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Assessment of differential diffusion effects in flamelet modeling of oxy-fuel flames. Combustion and Flame, 2018, 197, 134-144. | 2.8 | 23 |
| 110 | A priori analysis of differential diffusion for model development for scale-resolving simulations. Physical Review Fluids, 2018, 3, . | 1.0 | 5 |
| 111 | Aufbau einer fahrzyklusfÃhigen Simulationsmethodik zur Modellierung der Partikelemissionen direkteinspritzender Ottomotoren. Proceedings, 2018, , 223-237. | 0.2 | 0 |
| 112 | Vergasung. , 2018, , 427-519. | | 0 |
| 113 | Virtualisierung von Hochtemperaturprozessen. , 2018, , 579-606. | | 0 |
| 114 | Nutzung der Ladungswechsel- und Motorprozesssimulation zur Gesamtsystembewertung von CO2- und Rohemissionen in Fahrzyklen. Proceedings, 2018, , 71-85. | 0.2 | 0 |
| 115 | Pyrolyse. , 2018, , 297-426. | | 0 |
| 116 | Model-based virtual engine calibration with the help of phenomenological methods for spark-ignited engines. Applied Thermal Engineering, 2017, 121, 190-199. | 3.0 | 20 |
| 117 | Flame structure analysis and flamelet progress variable modelling of strained coal flames. Combustion Theory and Modelling, 2017, 21, 700-721. | 1.0 | 45 |
| 118 | Simulation of bubbly flows with special numerical treatments of the semi-conservative and fully conservative two-fluid model. Chemical Engineering Science, 2017, 174, 25-39. | 1.9 | 33 |
| 119 | Numerical study of natural gas reforming by non-catalytic partial oxidation based on the Virtuhcon Benchmark. Chemical Engineering Journal, 2017, 327, 307-319. | 6.6 | 9 |
| 120 | Dissipation element analysis of a turbulent non-premixed jet flame. Physics of Fluids, 2017, 29, 085103. | 1.6 | 12 |
| 121 | Comparative study of turbulence models for scale-resolving simulations of internal combustion engine flows. Computers and Fluids, 2017, 156, 66-80. | 1.3 | 24 |
| 122 | A Combined Numerical and Experimental Study of the 3D Tumble Structure and Piston Boundary Layer Development During the Intake Stroke of a Gasoline Engine. Flow, Turbulence and Combustion, 2017, 98, 579-600. | 1.4 | 43 |
| 123 | In-situ tracking of mixture fraction gradient trajectories and unsteady flamelet analysis in turbulent non-premixed combustion. Combustion and Flame, 2017, 175, 243-258. | 2.8 | 21 |
| 124 | Flamelet budget and regime analysis for non-premixed tubular flames. Proceedings of the Combustion Institute, 2017, 36, 1349-1356. | 2.4 | 11 |
| 125 | Detailed particle nucleation modeling in a sooting ethylene flame using a Conditional Quadrature Method of Moments (CQMOM). Proceedings of the Combustion Institute, 2017, 36, 771-779. | 2.4 | 18 |
| 126 | Comparative flame structure investigation of normal and inverse turbulent non-premixed oxy-fuel flames using experimentally recorded and numerically predicted Rayleigh and OH-PLIF signals. Proceedings of the Combustion Institute, 2017, 36, 1713-1720. | 2.4 | 16 |

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|---|---|---|---|
| 127 | A flamelet/progress variable approach for modeling coal particle ignition. Fuel, 2017, 201, 29-38. | 3.4 | 32 |
| 128 | Investigation of an IC Engine Intake Flow Based on Highly Resolved LES and PIV. Oil and Gas Science and Technology, 2017, 72, 15. | 1.4 | 12 |
| 129 | A Novel Approach for Efficient Storage and Retrieval of Tabulated Chemistry in Reactive Flow Simulations. Lecture Notes in Computer Science, 2017, , 82-95. | 1.0 | 0 |
| 130 | Identification of Large-Scale Structure Fluctuations in IC Engines using POD-Based Conditional Averaging. Oil and Gas Science and Technology, 2016, 71, 1. | 1.4 | 55 |
| 131 | Spatially Resolved Experimental and Numerical Investigation of the Flow through the Intake Port of an Internal Combustion Engine. Oil and Gas Science and Technology, 2016, 71, 2. | 1.4 | 30 |
| 132 | Development of an Ethanol Combustion Mechanism Based on a Hierarchical Optimization Approach. International Journal of Chemical Kinetics, 2016, 48, 423-441. | 1.0 | 77 |
| 133 | On the impact of the turbulent/non-turbulent interface on differential diffusion in a turbulent jet flow. Journal of Fluid Mechanics, 2016, 802, . | 1.4 | 15 |
| 134 | Resolved flow simulation of pulverized coal particle devolatilization and ignition in air- and O 2 /CO 2 -atmospheres. Fuel, 2016, 186, 285-292. | 3.4 | 59 |
| 135 | Detailed analysis of reacting particles in an entrained-flow gasifier. Fuel Processing Technology, 2016, 144, 95-108. | 3.7 | 40 |
| 136 | Bivariate extensions of the Extended Quadrature Method of Moments (EQMOM) to describe coupled droplet evaporation and heat-up. Journal of Aerosol Science, 2016, 92, 53-69. | 1.8 | 12 |
| 137 | Application of a Phenomenological Model for the Engine-Out Emissions of Unburned Hydrocarbons in Driving Cycles. Journal of Energy Resources Technology, Transactions of the ASME, 2016, 138, . | 1.4 | 13 |
| 138 | A systematic study on the applicability and limits of detailed chemistry based NO x models for simulations of the entire engine operating map of spark-ignition engines. Applied Thermal Engineering, 2016, 98, 910-923. | 3.0 | 17 |
| 139 | A Combined Experimental and Numerical Study of Laminar and Turbulent Non-piloted Oxy-fuel Jet Flames Using a Direct Comparison of the Rayleigh Signal. Flow, Turbulence and Combustion, 2016, 97, 231-262. | 1.4 | 8 |
| 140 | Speciation data for fuel-rich methane oxy-combustion and reforming under prototypical partial oxidation conditions. Chemical Engineering Science, 2016, 139, 249-260. | 1.9 | 26 |
| 141 | Scale-resolving simulations in engine combustion process design based on a systematic approach for model development. International Journal of Engine Research, 2016, 17, 44-62. | 1.4 | 46 |
| 142 | Models for Coal Kinetics. , 2015, , . | | 3 |
| 143 | Line segments in homogeneous scalar turbulence. Physics of Fluids, 2015, 27, . | 1.6 | 11 |
| 144 | Analysis of Structure, Extinction and Broadening in Oxygen-Enhanced Non-Premixed Flames. Zeitschrift Fur Physikalische Chemie, 2015, 229, . | 1.4 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | A Quasi-dimensional Model of the Ignition Delay for Combustion Modeling in Spark-Ignition Engines. Journal of Engineering for Gas Turbines and Power, 2015, 137, . | 0.5 | 10 |
| 146 | Large Eddy Simulation of coal combustion in a large-scale laboratory furnace. Proceedings of the Combustion Institute, 2015, 35, 3609-3617. | 2.4 | 71 |
| 147 | From laboratory-scale experiments to industrial-scale CFD simulations of entrained flow coal gasification. Fuel, 2015, 152, 58-73. | 3.4 | 53 |
| 148 | Experimental and numerical analysis of iso-octane/ethanol sprays under gasoline engine conditions. International Journal of Heat and Mass Transfer, 2015, 84, 497-510. | 2.5 | 24 |
| 149 | Modeling soot formation in premixed flames using an Extended Conditional Quadrature Method of Moments. Combustion and Flame, 2015, 162, 2529-2543. | 2.8 | 62 |
| 150 | LES flamelet-progress variable modeling and measurements of a turbulent partially-premixed dimethyl ether jet flame. Combustion and Flame, 2015, 162, 3016-3029. | 2.8 | 54 |
| 151 | A multi-scale asymptotic scaling and regime analysis of flamelet equations including tangential diffusion effects for laminar and turbulent flames. Combustion and Flame, 2015, 162, 1507-1529. | 2.8 | 36 |
| 152 | A Constrained Control Approach for the Automated Choice of an Optimal Progress Variable for Chemistry Tabulation. Flow, Turbulence and Combustion, 2015, 94, 593-617. | 1.4 | 31 |
| 153 | Flamelet/progress variable modeling of partial oxidation systems: From laboratory flames to pilot-scale reactors. Chemical Engineering Science, 2015, 134, 694-707. | 1.9 | 18 |
| 154 | The influence of differential evaporation on the structure of a three-component biofuel spray. International Journal of Engine Research, 2015, 16, 610-626. | 1.4 | 1 |
| 155 | Reducing the memory footprint in Large Eddy Simulations of reactive flows. Parallel Computing, 2015, 49, 50-65. | 1.3 | 15 |
| 156 | Laminar burning velocity measurements using the Heat Flux method and numerical predictions of iso-octane/ethanol blends for different preheat temperatures. Fuel, 2015, 140, 10-16. | 3.4 | 47 |
| 157 | Detailed radiation modeling of a partial-oxidation flame. International Journal of Thermal Sciences, 2015, 87, 68-84. | 2.6 | 31 |
| 158 | The Influence of Differential Diffusion in Turbulent Oxygen Enhanced Methane Flames. ERCOFTAC Series, 2015, , 511-517. | 0.1 | 0 |
| 159 | A quasi-dimensional model of turbulence and global charge motion for spark ignition engines with fully variable valvetrains. International Journal of Engine Research, 2014, 15, 805-816. | 1.4 | 30 |
| 160 | Evaluation of scale resolving turbulence generation methods for Large Eddy Simulation of turbulent flows. Computers and Fluids, 2014, 93, 116-128. | 1.3 | 19 |
| 161 | Simulation of entrained flow gasification with advanced coal conversion submodels. Part 2: Char conversion. Fuel, 2014, 118, 369-384. | 3.4 | 47 |
| 162 | Determination of laminar burning velocities for lean low calorific H2/N2 and H2/CO/N2 gas mixtures. International Journal of Hydrogen Energy, 2014, 39, 19810-19817. | 3.8 | 28 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Application of proper orthogonal decomposition methods in reactive pore diffusion simulations. Canadian Journal of Chemical Engineering, 2014, 92, 1552-1560. | 0.9 | 1 |
| 164 | Probability density function approach coupled with detailed chemical kinetics for the prediction of knock in turbocharged direct injection spark ignition engines. Combustion and Flame, 2014, 161, 997-1014. | 2.8 | 52 |
| 165 | The analysis of chemical time scales in a partial oxidation flame. Combustion and Flame, 2014, 161, 416-426. | 2.8 | 19 |
| 166 | Numerical Simulation of Pulverized Coal MILD Combustion Using a New Heterogeneous Combustion Submodel. Flow, Turbulence and Combustion, 2014, 92, 319-345. | 1.4 | 37 |
| 167 | Simulation of entrained flow gasification with advanced coal conversion submodels. Part 1: Pyrolysis. Fuel, 2013, 113, 654-669. | 3.4 | 97 |
| 168 | The influence of non-ideal vaporâ€“liquid equilibrium on the evaporation of ethanol/iso-octane droplets. International Journal of Heat and Mass Transfer, 2013, 64, 547-558. | 2.5 | 60 |
| 169 | Evaluation of radiation modeling approaches for non-premixed flamelets considering a laminar methane air flame. Combustion and Flame, 2013, 160, 251-264. | 2.8 | 25 |
| 170 | A consistent flamelet formulation for a reacting char particle considering curvature effects. Combustion and Flame, 2013, 160, 2540-2558. | 2.8 | 28 |
| 171 | The influence of intra-droplet heat and mass transfer limitations in evaporation of binary hydrocarbon mixtures. International Journal of Heat and Mass Transfer, 2013, 67, 1191-1207. | 2.5 | 21 |
| 172 | Flamelet modeling of coal particle ignition. Proceedings of the Combustion Institute, 2013, 34, 2445-2452. | 2.4 | 85 |
| 173 | An abstraction layer for efficient memory management of tabulated chemistry and flamelet solutions. Combustion Theory and Modelling, 2013, 17, 411-430. | 1.0 | 19 |
| 174 | Experimental and numerical study of rich inverse diffusion flame structure. Proceedings of the Combustion Institute, 2013, 34, 1045-1055. | 2.4 | 37 |
| 175 | Towards Comprehensive Coal Combustion Modelling for LES. Flow, Turbulence and Combustion, 2013, 90, 859-884. | 1.4 | 117 |
| 176 | Flamelet-Modeling of Inverse Rich Diffusion Flames. Flow, Turbulence and Combustion, 2013, 90, 833-857. | 1.4 | 17 |
| 177 | Development of an inverse diffusion partial oxidation flame and model burner contributing to the development of 3rd generation coal gasifiers. Fuel Processing Technology, 2013, 110, 33-45. | 3.7 | 24 |
| 178 | Steady Flamelet Progress-Variable (FPV) Modeling and Simulation of a High-Pressure Gasifier. Energy & Fuels, 2013, 27, 7772-7777. | 2.5 | 12 |
| 179 | Numerical study of the partial oxidation of a coal particle in steam and dry air atmospheres. IMA Journal of Applied Mathematics, 2012, 77, 32-46. | 0.8 | 33 |
| 180 | Numerical simulation of pulverized coal MILD combustion considering advanced heterogeneous combustion model. , 2012, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Flamelet-Based Time-Scale Analysis of a High-Pressure Gasifier. Energy & Fuels, 2011, 25, 3892-3899. | 2.5 | 21 |
| 182 | Numerical investigation of cyclic variations in gasoline engines using a hybrid URANS/LES modeling approach. Computers and Fluids, 2010, 39, 25-48. | 1.3 | 79 |
| 183 | A Consistent Flamelet Model to Describe the Interaction of Combustion Chemistry and Mixing in the Controlled Auto Ignition Regime. , 2010, , . | | 2 |
| 184 | Implementation and Validation of the G-equation Model Coupled with Flamelet Libraries for Simulating Premixed Combustion in I.C. Engines. SAE International Journal of Engines, 2009, 2, 674-690. | 0.4 | 5 |
| 185 | Hybrid URANS/LES Turbulence Simulation of Vortex Shedding Behind a Triangular Flameholder. Flow, Turbulence and Combustion, 2009, 83, 1-20. | 1.4 | 25 |
| 186 | An extended flamelet model for multiple injections in DI Diesel engines. Proceedings of the Combustion Institute, 2009, 32, 2775-2783. | 2.4 | 72 |
| 187 | Detached eddy simulation of cyclic large scale fluctuations in a simplified engine setup. International Journal of Heat and Fluid Flow, 2009, 30, 32-43. | 1.1 | 47 |
| 188 | An experimental and numerical investigation of turbulent flame propagation and flame structure in a turbo-charged direct injection gasoline engine. Combustion Theory and Modelling, 2009, 13, 167-188. | 1.0 | 24 |
| 189 | Evaluation of Modeling Approaches for NOx Formation in a Common-Rail DI Diesel Engine within the Framework of Representative Interactive Flamelets (RIF). , 2008, , . | | 4 |
| 190 | A two mixture fraction flamelet model applied to split injections in a DI Diesel engine. Proceedings of the Combustion Institute, 2005, 30, 2755-2762. | 2.4 | 145 |
| 191 | Numerical simulation and laser-based imaging of mixture formation, ignition, and soot formation in a diesel spray. Proceedings of the Combustion Institute, 2005, 30, 2029-2036. | 2.4 | 19 |
| 192 | Modelling of ignition mechanisms and pollutant formation in direct-injection diesel engines with multiple injections. International Journal of Engine Research, 2005, 6, 231-246. | 1.4 | 35 |
| 193 | Aggregate formation in sooting counterflow diffusion flames. Proceedings of the Combustion Institute, 2002, 29, 2383-2390. | 2.4 | 7 |
| 194 | Development of adaptive kinetics for application in combustion systems. Proceedings of the Combustion Institute, 2002, 29, 1403-1410. | 2.4 | 42 |
| 195 | Quenching of laminar iso-octane flames at cold walls. Combustion and Flame, 2000, 122, 117-129. | 2.8 | 96 |
| 196 | Simulation of combustion in direct injection diesel engines using a eulerian particle flamelet model. Proceedings of the Combustion Institute, 2000, 28, 1161-1168. | 2.4 | 111 |
| 197 | Modeling DI-Diesel Combustion using the Eulerian Particle Flamelet Model (EPFM). , 2000, , . | | 20 |
| 198 | Differences between Iso-Octane and Methane during Wall Quenching with Respect to HC Emissions. , 2000, , . | | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Computational fluid dynamics modelling of non-premixed combustion in direct injection diesel engines. International Journal of Engine Research, 2000, 1, 249-267. | 1.4 | 88 |
| 200 | Modelling the Effect of Split Injections in Diesel Engines Using Representative Interactive Flamelets. , 0, , . | | 24 |
| 201 | Modeling of HCCI Combustion Using Adaptive Chemical Kinetics. , 0, , . | | 13 |
| 202 | Applying Representative Interactive Flamelets (RIF) with Special Emphasis on Pollutant Formation to Simulate a DI Diesel Engine with Roof-Shaped Combustion Chamber and Tumble Charge Motion. , 0, , . | | 4 |
| 203 | Applying an Extended Flamelet Model for a Multiple Injection Operating Strategy in a Common-Rail DI Diesel Engine. SAE International Journal of Engines, 0, 2, 727-741. | 0.4 | 3 |
| 204 | CFD Modeling of Gas-Fuel Interaction and Mixture Formation in a Gasoline Direct-Injection Engine Coupled With the ECN Spray G Injector. , 0, , . | | 2 |