

Hongsheng Guo

List of Publications by Year in descending order

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114
papers

4,560
citations

101543

36
h-index

106344

65
g-index

114
all docs

114
docs citations

114
times ranked

1972
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | The chemical effects of carbon dioxide as an additive in an ethylene diffusion flame: implications for soot and NO _x formation. <i>Combustion and Flame</i> , 2001, 125, 778-787. | 5.2 | 341 |
| 2 | The chemical effect of CO ₂ replacement of N ₂ in air on the burning velocity of CH ₄ and H ₂ premixed flames. <i>Combustion and Flame</i> , 2003, 133, 495-497. | 5.2 | 283 |
| 3 | On the extinction limit and flammability limit of non-adiabatic stretched methane-air premixed flames. <i>Journal of Fluid Mechanics</i> , 1997, 342, 315-334. | 3.4 | 276 |
| 4 | The effect of hydrogen addition on flammability limit and NO _x emission in ultra-lean counterflow CH ₄ /air premixed flames. <i>Proceedings of the Combustion Institute</i> , 2005, 30, 303-311. | 3.9 | 185 |
| 5 | Numerical study on the influence of hydrogen addition on soot formation in a laminar ethylene-air diffusion flame. <i>Combustion and Flame</i> , 2006, 145, 324-338. | 5.2 | 156 |
| 6 | CoFlame: A refined and validated numerical algorithm for modeling sooting laminar coflow diffusion flames. <i>Computer Physics Communications</i> , 2016, 207, 464-477. | 7.5 | 136 |
| 7 | Effects of gas and soot radiation on soot formation in a coflow laminar ethylene diffusion flame. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2002, 73, 409-421. | 2.3 | 127 |
| 8 | Effects of ammonia energy fraction and diesel injection timing on combustion and emissions of an ammonia/diesel dual-fuel engine. <i>Fuel</i> , 2022, 314, 122723. | 6.4 | 127 |
| 9 | Extinction of low-stretched diffusion flame in microgravity. <i>Combustion and Flame</i> , 1998, 112, 181-187. | 5.2 | 118 |
| 10 | Modeling of soot aggregate formation and size distribution in a laminar ethylene/air coflow diffusion flame with detailed PAH chemistry and an advanced sectional aerosol dynamics model. <i>Proceedings of the Combustion Institute</i> , 2009, 32, 761-768. | 3.9 | 109 |
| 11 | An experimental and numerical study on diesel injection split of a natural gas/diesel dual-fuel engine at a low engine load. <i>Fuel</i> , 2018, 212, 332-346. | 6.4 | 109 |
| 12 | Numerical modelling of soot formation and oxidation in laminar coflow non-smoking and smoking ethylene diffusion flames. <i>Combustion Theory and Modelling</i> , 2003, 7, 301-315. | 1.9 | 106 |
| 13 | Effects of radiation model on the modeling of a laminar coflow methane/air diffusion flame. <i>Combustion and Flame</i> , 2004, 138, 136-154. | 5.2 | 103 |
| 14 | An experimental and numerical study of the effect of diesel injection timing on natural gas/diesel dual-fuel combustion at low load. <i>Fuel</i> , 2017, 203, 642-657. | 6.4 | 102 |
| 15 | Numerical and experimental study of an axisymmetric coflow laminar methane-air diffusion flame at pressures between 5 and 40 atmospheres. <i>Combustion and Flame</i> , 2006, 146, 456-471. | 5.2 | 96 |
| 16 | Radiation extinction limit of counterflow premixed lean methane-air flames. <i>Combustion and Flame</i> , 1997, 109, 639-646. | 5.2 | 94 |
| 17 | Effect of diesel injection timing on the combustion of natural gas/diesel dual-fuel engine at low-high load and low-high speed conditions. <i>Fuel</i> , 2019, 235, 838-846. | 6.4 | 92 |
| 18 | An experimental and numerical study of the effects of dimethyl ether addition to fuel on polycyclic aromatic hydrocarbon and soot formation in laminar coflow ethylene/air diffusion flames. <i>Combustion and Flame</i> , 2011, 158, 547-563. | 5.2 | 89 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | A numerical investigation on methane combustion and emissions from a natural gas-diesel dual fuel engine using CFD model. <i>Applied Energy</i> , 2017, 205, 153-162. | 10.1 | 89 |
| 20 | The flame preheating effect on numerical modelling of soot formation in a two-dimensional laminar ethylene-air diffusion flame. <i>Combustion Theory and Modelling</i> , 2002, 6, 173-187. | 1.9 | 82 |
| 21 | Effects of the Lewis number and radiative heat loss on the bifurcation and extinction of CH ₄ /O ₂ -N ₂ -He flames. <i>Journal of Fluid Mechanics</i> , 1999, 379, 165-190. | 3.4 | 81 |
| 22 | A study on split diesel injection on thermal efficiency and emissions of an ammonia/diesel dual-fuel engine. <i>Fuel</i> , 2022, 316, 123412. | 6.4 | 71 |
| 23 | A Numerical Study on the Influence of CO ₂ Addition on Soot Formation in an Ethylene/Air Diffusion Flame. <i>Combustion Science and Technology</i> , 2008, 180, 1695-1708. | 2.3 | 68 |
| 24 | A numerical study of soot aggregate formation in a laminar coflow diffusion flame. <i>Combustion and Flame</i> , 2009, 156, 697-705. | 5.2 | 65 |
| 25 | An experimental study on the effect of hydrogen enrichment on diesel fueled HCCI combustion. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 13820-13830. | 7.1 | 57 |
| 26 | The effect of hydrogen addition on combustion and emission characteristics of an n-heptane fuelled HCCI engine. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 11429-11437. | 7.1 | 56 |
| 27 | On greenhouse gas emissions and thermal efficiency of natural gas/diesel dual-fuel engine at low load conditions: Coupled effect of injector rail pressure and split injection. <i>Applied Energy</i> , 2019, 242, 216-231. | 10.1 | 53 |
| 28 | Implementation of an advanced fixed sectional aerosol dynamics model with soot aggregate formation in a laminar methane/air coflow diffusion flame. <i>Combustion Theory and Modelling</i> , 2008, 12, 621-641. | 1.9 | 50 |
| 29 | Effects of gas and soot radiation on soot formation in counterflow ethylene diffusion flames. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2004, 84, 501-511. | 2.3 | 49 |
| 30 | Soot formation in a laminar ethylene/air diffusion flame at pressures from 1 to 8 atm. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 1795-1802. | 3.9 | 47 |
| 31 | A numerical and experimental study of a laminar sooting coflow Jet-A1 diffusion flame. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 601-608. | 3.9 | 45 |
| 32 | Effect of swirl ratio on NG/diesel dual-fuel combustion at low to high engine load conditions. <i>Applied Energy</i> , 2018, 229, 375-388. | 10.1 | 43 |
| 33 | Soot and NO formation in counterflow ethylene/oxygen/nitrogen diffusion flames. <i>Combustion Theory and Modelling</i> , 2004, 8, 475-489. | 1.9 | 42 |
| 34 | Numerical study of the superadiabatic flame temperature phenomenon in hydrocarbon premixed flames. <i>Proceedings of the Combustion Institute</i> , 2002, 29, 1543-1550. | 3.9 | 41 |
| 35 | An experimental study on the formation of polycyclic aromatic hydrocarbons in laminar coflow non-premixed methane/air flames doped with four isomeric butanols. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 779-786. | 3.9 | 40 |
| 36 | Measurement and modeling of the sooting propensity of binary fuel mixtures. <i>Proceedings of the Combustion Institute</i> , 2007, 31, 611-619. | 3.9 | 38 |

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|----|---|------|-----------|
| 37 | Impact of CO ₂ , N ₂ or Ar diluted in air on the length and lifting behavior of a laminar diffusion flame. Proceedings of the Combustion Institute, 2011, 33, 1071-1078. | 3.9 | 38 |
| 38 | Burning rates and surface characteristics of hydrogen-enriched turbulent lean premixed methane-air flames. International Journal of Hydrogen Energy, 2010, 35, 11342-11348. | 7.1 | 36 |
| 39 | A Numerical Investigation of Thermal Diffusion Influence on Soot Formation in Ethylene/Air Diffusion Flames. International Journal of Computational Fluid Dynamics, 2004, 18, 139-151. | 1.2 | 35 |
| 40 | On the effect of carbon monoxide addition on soot formation in a laminar ethylene/air coflow diffusion flame. Combustion and Flame, 2009, 156, 1135-1142. | 5.2 | 35 |
| 41 | Modeling of Oxidation-Driven Soot Aggregate Fragmentation in a Laminar Coflow Diffusion Flame. Combustion Science and Technology, 2010, 182, 491-504. | 2.3 | 34 |
| 42 | Numerical Investigation of CH ₄ /CO ₂ /Air and CH ₄ /CO ₂ /O ₂ Counterflow Premixed Flames with Radiation Reabsorption. Combustion Science and Technology, 1998, 135, 49-64. | 2.3 | 32 |
| 43 | A Numerical Study on the Effects of CO ₂ /N ₂ /Ar Addition to Air on Liftoff of a Laminar CH ₄ /Air Diffusion Flame. Combustion Science and Technology, 2010, 182, 1549-1563. | 2.3 | 32 |
| 44 | A numerical study on NO _x formation in laminar counterflow CH ₄ /air triple flames. Combustion and Flame, 2005, 143, 282-298. | 5.2 | 31 |
| 45 | Split diesel injection effect on knocking of natural gas/diesel dual-fuel engine at high load conditions. Applied Energy, 2020, 279, 115828. | 10.1 | 31 |
| 46 | Flame Bifurcations and Flammable Regions of Radiative Counterflow Premixed Flames with General Lewis Numbers. Combustion and Flame, 1998, 113, 603-614. | 5.2 | 29 |
| 47 | The interaction between soot and NO formation in a laminar axisymmetric coflow ethylene/air diffusion flame. Combustion and Flame, 2007, 149, 225-233. | 5.2 | 26 |
| 48 | A numerical investigation on NO ₂ formation reaction pathway in a natural gas-diesel dual fuel engine. Combustion and Flame, 2018, 190, 337-348. | 5.2 | 26 |
| 49 | The effect of reformat gas enrichment on extinction limits and NO _x formation in counterflow CH ₄ /air premixed flames. Proceedings of the Combustion Institute, 2007, 31, 1197-1204. | 3.9 | 25 |
| 50 | A numerical study on the effect of hydrogen/reformat gas addition on flame temperature and NO formation in strained methane/air diffusion flames. Combustion and Flame, 2009, 156, 477-483. | 5.2 | 25 |
| 51 | Heat release rate variations in a globally stoichiometric, stratified iso-octane/air turbulent V-flame. Combustion and Flame, 2015, 162, 944-959. | 5.2 | 23 |
| 52 | A numerical study of the influence of transport properties of inert diluents on soot formation in a coflow laminar ethylene/air diffusion flame. Proceedings of the Combustion Institute, 2002, 29, 2359-2365. | 3.9 | 22 |
| 53 | A numerical study on the chemical kinetics process during auto-ignition of n-heptane in a direct injection compression ignition engine. Applied Energy, 2018, 212, 909-918. | 10.1 | 22 |
| 54 | Effect of post-injection strategy on greenhouse gas emissions of natural gas/diesel dual-fuel engine at high load conditions. Fuel, 2021, 290, 120071. | 6.4 | 22 |

| # | ARTICLE | IF | CITATIONS |
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| 55 | Effects of different cetane number enhancement strategies on HCCI combustion and emissions. International Journal of Engine Research, 2011, 12, 89-108. | 2.3 | 21 |
| 56 | A robust and accurate algorithm of the \hat{I}^2 -pdf integration and its application to turbulent methane-air diffusion combustion in a gas turbine combustor simulator. International Journal of Thermal Sciences, 2002, 41, 763-772. | 4.9 | 20 |
| 57 | An Experimental and Modeling Study of HCCI Combustion Using n-Heptane. Journal of Engineering for Gas Turbines and Power, 2010, 132, . | 1.1 | 20 |
| 58 | An Experimental Investigation on the Combustion and Emissions Performance of a Natural Gas-Diesel Dual Fuel Engine at Low and Medium Loads. , 2015, , . | | 19 |
| 59 | Effects of Cetane Number, Aromatic Content and 90% Distillation Temperature on HCCI Combustion of Diesel Fuels. , 0, , . | | 18 |
| 60 | Numerical Study of NOx Emission in High Temperature Air Combustion.. JSME International Journal Series B, 1998, 41, 331-337. | 0.3 | 15 |
| 61 | Determination of Burning Velocity and Flammability Limit of Methane/Air Mixture Using Counterflow Flames. Japanese Journal of Applied Physics, 1999, 38, 961-967. | 1.5 | 14 |
| 62 | A numerical study of laminar methane/air triple flames in two-dimensional mixing layers. International Journal of Thermal Sciences, 2006, 45, 586-594. | 4.9 | 14 |
| 63 | Combustion Performance and Unburned Hydrocarbon Emissions of a Natural Gas-Diesel Dual Fuel Engine at a Low Load Condition. Journal of Engineering for Gas Turbines and Power, 2018, 140, . | 1.1 | 14 |
| 64 | Effect of fuel composition on properties of particles emitted from a diesel-natural gas dual fuel engine. International Journal of Engine Research, 2021, 22, 77-87. | 2.3 | 14 |
| 65 | The Combustion and Emissions Performance of a Syngas-Diesel Dual Fuel Compression Ignition Engine. , 2016, , . | | 13 |
| 66 | Effect of pre-main-post diesel injection strategy on greenhouse gas and nitrogen oxide emissions of natural gas/diesel dual-fuel engine at high load conditions. Fuel, 2021, 302, 121110. | 6.4 | 13 |
| 67 | Evaluation of the laminar diffusion flamelet model in the calculation of an axisymmetric coflow laminar ethylene-air diffusion flame. Combustion and Flame, 2006, 144, 605-618. | 5.2 | 12 |
| 68 | Fuel Property Effects on PCCI Combustion in a Heavy-Duty Diesel Engine. Journal of Engineering for Gas Turbines and Power, 2012, 134, . | 1.1 | 12 |
| 69 | The NOx and N2O Emission Characteristics of an HCCI Engine Operated With n-Heptane. Journal of Energy Resources Technology, Transactions of the ASME, 2012, 134, . | 2.3 | 11 |
| 70 | Further examinations on extinction and bifurcations of radiative CH4/air and C3H8/air premixed flames. Proceedings of the Combustion Institute, 1998, 27, 2551-2557. | 0.3 | 10 |
| 71 | A numerical investigation on NOX formation in counterflow n-heptane triple flames. International Journal of Thermal Sciences, 2007, 46, 936-943. | 4.9 | 10 |
| 72 | An Experimental Study on the Effect of Exhaust Gas Recirculation on a Natural Gas-Diesel Dual-Fuel Engine. , 0, , . | | 9 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Effects of radiative heat loss on the extinction of counterflow premixed H ₂ -air flames. <i>Combustion Theory and Modelling</i> , 2000, 4, 459-475. | 1.9 | 8 |
| 74 | A multi-spectral reordering technique for the full spectrum SLMB modeling of radiative heat transfer in nonuniform gaseous mixtures. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 394-411. | 2.3 | 8 |
| 75 | Effects of stratification on locally lean, near-stoichiometric, and rich iso-octane/air turbulent V-flames. <i>Combustion and Flame</i> , 2015, 162, 4231-4240. | 5.2 | 8 |
| 76 | A Study on the Performance of Combustion in a HCCI Engine Using n-Heptane by a Multi-Zone Model. , 2009, , . | | 7 |
| 77 | Evaluation of Kinetics Process in CFD Model and Its Application in Ignition Process Analysis of a Natural Gas-Diesel Dual Fuel Engine. , 0, , . | | 7 |
| 78 | Effect of Diesel Injection Split on Combustion and Emissions Performance of a Natural Gas-Diesel Dual Fuel Engine at a Low Load Condition. , 2017, , . | | 6 |
| 79 | Injector Tip Temperature and Combustion Performance of a Natural Gas-Diesel Dual Fuel Engine at Medium and High Load Conditions. , 2018, , . | | 6 |
| 80 | A numerical study on the effect of CO addition on extinction limits and NO _x formation in lean counterflow CH ₄ /air premixed flames. <i>Combustion Theory and Modelling</i> , 2007, 11, 741-753. | 1.9 | 5 |
| 81 | A Numerical Study on the Effect of Water Addition on NO Formation in Counterflow CH ₄ /Air Premixed Flames. <i>Journal of Engineering for Gas Turbines and Power</i> , 2008, 130, . | 1.1 | 5 |
| 82 | The Effect of Iso-Octane Addition on Combustion and Emission Characteristics of a HCCI Engine Fueled With n-Heptane. <i>Journal of Engineering for Gas Turbines and Power</i> , 2011, 133, . | 1.1 | 5 |
| 83 | The effect of preferential diffusion on soot formation in a laminar ethylene/air diffusion flame. <i>Combustion Theory and Modelling</i> , 2010, 15, 125-140. | 1.9 | 4 |
| 84 | On the Variation of the Effect of Natural Gas Fraction on Dual-Fuel Combustion of Diesel Engine Under Low-to-High Load Conditions. <i>Frontiers in Mechanical Engineering</i> , 2020, 6, . | 1.8 | 4 |
| 85 | An Experimental and Modeling Study of HCCI Combustion Using n-Heptane. , 2006, , . | | 4 |
| 86 | Fuel Property Effects on PCCI Combustion in a Heavy-Duty Diesel Engine. , 2010, , . | | 3 |
| 87 | Effect of Renewable Diesel and Jet Blending Components on Combustion and Emissions Performance of a HCCI Engine. , 2014, , . | | 3 |
| 88 | Combustion and Greenhouse Gas Emissions of a Natural Gas-Diesel Dual Fuel Engine at Low and High Load Conditions. , 2019, , . | | 3 |
| 89 | Numerical investigation on NO formation in laminar counterflow methane/n-heptane dual fuel flames. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 13143-13156. | 7.1 | 3 |
| 90 | Low Stretched Premixed Methane-Air Flame.. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 1997, 63, 699-704. | 0.2 | 2 |

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| 91 | A Numerical Investigation on Soot Formation From Laminar Diffusion Flames of Ethylene/Methane Mixture. , 2008, , . | | 2 |
| 92 | A Numerical Investigation on NO ₂ Formation in a Natural Gas-Diesel Dual Fuel Engine. , 2017, , . | | 2 |
| 93 | Combustion Performance and Unburned Hydrocarbon Emissions of a Natural Gas-Diesel Dual Fuel Engine at a Low Load Condition. , 2017, , . | | 2 |
| 94 | A Numerical Investigation on NO ₂ Formation in a Natural Gas-Diesel Dual Fuel Engine. Journal of Engineering for Gas Turbines and Power, 2018, 140, . | 1.1 | 2 |
| 95 | Editorial: Advances in Compression Ignition Natural Gas-Diesel Dual-Fuel Engines. Frontiers in Mechanical Engineering, 2021, 7, . | 1.8 | 2 |
| 96 | An Experimental Study on NO _x Emissions of a Heavy-Duty Diesel Engine during Cold Start and Idling. , 0, , . | | 2 |
| 97 | The NO _x and N ₂ O Emission Characteristics of an HCCI Engine Operated With N-Heptane. , 2007, , . | | 2 |
| 98 | A study on effect of engine operating parameters on NO _x emissions and exhaust temperatures of a heavy-duty diesel engine during idling. International Journal of Engine Research, 0, , 146808742210760. | 2.3 | 2 |
| 99 | A Numerical Study on the Effect of CO Addition on Flame Temperature and NO Formation in Counterflow CH ₄ /Air Diffusion Flames. Journal of Engineering for Gas Turbines and Power, 2008, 130, . | 1.1 | 1 |
| 100 | A Study on the High Load Operation of a Natural Gas-Diesel Dual-Fuel Engine. Frontiers in Mechanical Engineering, 2020, 6, . | 1.8 | 1 |
| 101 | A Numerical Investigation of NO _x Formation in Counterflow CH ₄ /H ₂ /Air Diffusion Flames. , 2006, , . | | 1 |
| 102 | Effects of Ammonia Energy Fraction and Diesel Injection Timing on Combustion and Emissions of an Ammonia/Diesel Dual-Fuel Engine. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 103 | Numerical Modeling of a Lifted Laminar Coflow Methane Diffusion Jet Flames Using Detailed Chemistry and Non-Grey Gas Radiation Models. , 2002, , 119. | | 0 |
| 104 | A Numerical Study on the Effect of Water Addition on NO Formation in Counterflow CH ₄ /Air Premixed Flames. , 2005, , 383. | | 0 |
| 105 | A Numerical Study on the Effect of CO Addition on Flame Temperature and NO Formation in Counterflow CH ₄ /Air Diffusion Flames. , 2007, , 701. | | 0 |
| 106 | Burning Rates and Surface Characteristics of Hydrogen-Enriched Turbulent Lean Premixed Methane-Air Flames. , 2009, , . | | 0 |
| 107 | A Numerical Study of the Influence of Hydrogen Addition on Soot Formation in a Laminar Counterflow Ethylene/Oxygen/Nitrogen Diffusion Flame. , 2004, , . | | 0 |
| 108 | A Numerical Study on a V-Shaped Laminar Stratified Flame. , 2005, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 109 | Dilution Effects on Partially-Premixed Combustion of an Ultra-Low Sulphur Diesel Fuel Under Low-Load Operation. , 2012, , . | | 0 |
| 110 | Combustion and Emission Performance of an HCCI Engine Fuelled by n-Heptane/Toluene Blends at a Low-Load Operating Condition. Journal of Advanced Thermal Science Research, 2019, 5, 17-26. | 0.4 | 0 |
| 111 | Replacement of Diesel by Biogas Generated From Wastewater Treatment in a Small Diesel Generator by Dual Fuel Technology. , 2020, , . | | 0 |
| 112 | An Experimental Study on a Dual-Fuel Generator Fueled With Diesel and Simulated Biogas. , 2021, , . | | 0 |
| 113 | A Study on the Use of Intake Flow Path Modification to Reduce Methane Slip of a Natural Gas-Diesel Dual-Fuel Engine. , 0, , . | | 0 |
| 114 | An Experimental Study On a Dual-Fuel Generator Fueled with Diesel and Simulated Biogas. Journal of Engineering for Gas Turbines and Power, 2022, , . | 1.1 | 0 |