# Xi Jiang

## List of Publications by Year in descending order

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|---|---|---|---|
| 85 papers | 1,866 citations | 411340 20 h-index | 340414 39 g-index |
| 89 all docs | 89 docs citations | 89 times ranked | 1856 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A molecular simulation study on transport properties of FAMEs in high-pressure conditions. Fuel, 2022, 316, 123356. | 3.4 | 8 |
| 2 | Understanding the miscibility of polyoxymethylene dimethyl ethers (OMEn) and diesel blend using molecular dynamics simulation. Fuel, 2022, 323, 124348. | 3.4 | 4 |
| 3 | Experimental investigation of non-premixed and partially premixed methane lifted flames established on a lobed swirl injector. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2021, 235, 835-849. | 0.8 | 3 |
| 4 | Coupling effects of native H2S and different co-injected impurities on CO2 sequestration in layered saline aquifers. Journal of Natural Gas Science and Engineering, 2021, 88, 103846. | 2.1 | 9 |
| 5 | Vortex Breakdown Control by the Plasma Swirl Injector. Applied Sciences (Switzerland), 2021, 11, 5537. | 1.3 | 1 |
| 6 | A molecular investigation on lignin thermochemical conversion and carbonaceous organics deposition induced catalyst deactivation. Applied Energy, 2021, 302, 117557. | 5.1 | 22 |
| 7 | Design and experimental evaluation of a plasma swirler with helical shaped actuators. Sensors and Actuators A: Physical, 2020, 315, 112250. | 2.0 | 4 |
| 8 | Parametric and model uncertainties induced by reduced order chemical mechanisms for biogas combustion. Chemical Engineering Science, 2020, 227, 115949. | 1.9 | 10 |
| 9 | Central recirculation zone induced by the DBD plasma actuation. Scientific Reports, 2020, 10, 13004. | 1.6 | 3 |
| 10 | Molecular dynamics simulation of soot formation during diesel combustion with oxygenated fuel addition. Physical Chemistry Chemical Physics, 2020, 22, 20829-20836. | 1.3 | 23 |
| 11 | Numerical investigation of convective mixing in impure CO2 geological storage into deep saline aquifers. International Journal of Greenhouse Gas Control, 2020, 96, 103015. | 2.3 | 18 |
| 12 | Datasets for high hydrogen content syngas fuel variability effect on combustion physicochemical properties. Data in Brief, 2020, 29, 105116. | 0.5 | 0 |
| 13 | Prediction of transport properties of fuels in supercritical conditions by molecular dynamics simulation. Energy Procedia, 2019, 158, 1700-1705. | 1.8 | 8 |
| 14 | Uncertainty quantification of fuel variability effects on high hydrogen content syngas combustion. Fuel, 2019, 257, 116111. | 3.4 | 19 |
| 15 | Optimisation of low energy cooling through phase variation between adjacent piezoelectric fan blades. International Journal of Heat and Mass Transfer, 2019, 139, 362-372. | 2.5 | 15 |
| 16 | An experimental investigation on the electrospray characteristics in a meso-scale system at different modes. Experimental Thermal and Fluid Science, 2019, 106, 130-137. | 1.5 | 27 |
| 17 | Effects of electrical parameters on the performance of a plasma swirler. Physica Scripta, 2019, 94, 095601. | 1.2 | 4 |
| 18 | Geometric optimisation of piezoelectric fan arrays for low energy cooling. International Journal of Heat and Mass Transfer, 2019, 137, 52-63. | 2.5 | 9 |

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|---|---|---|---|
| 19 | Transport property prediction and inhomogeneity analysis of supercritical n-Dodecane by molecular dynamics simulation. Fuel, 2019, 244, 48-60. | 3.4 | 25 |
| 20 | Combustion control using a lobed swirl injector and a plasma swirler. Applied Thermal Engineering, 2019, 152, 92-102. | 3.0 | 15 |
| 21 | An investigation of fuel variability effect on bio-syngas combustion using uncertainty quantification. Fuel, 2018, 220, 283-295. | 3.4 | 17 |
| 22 | A review of piezoelectric fans for low energy cooling of power electronics. Applied Energy, 2018, 215, 321-337. | 5.1 | 47 |
| 23 | Electro-spraying and catalytic combustion characteristics of ethanol in meso-scale combustors with steel and platinum meshes. Energy Conversion and Management, 2018, 164, 410-416. | 4.4 | 30 |
| 24 | Investigation of dilution effects on partially premixed swirling syngas flames using a LES-LEM approach. Journal of the Energy Institute, 2018, 91, 902-915. | 2.7 | 14 |
| 25 | Effects of N2 and H2S binary impurities on CO2 geological storage in stratified formation â€“ A sensitivity study. Applied Energy, 2018, 229, 482-492. | 5.1 | 20 |
| 26 | An assessment of fuel variability effect on biogas-hydrogen combustion using uncertainty quantification. International Journal of Hydrogen Energy, 2018, 43, 12499-12515. | 3.8 | 26 |
| 27 | Flame lift-off height control by a combined vane-plasma swirler. Journal Physics D: Applied Physics, 2018, 51, 345205. | 1.3 | 5 |
| 28 | A case study of using cosmic ray muons to monitor supercritical CO2 migration in geological formations. Applied Energy, 2017, 185, 1450-1458. | 5.1 | 3 |
| 29 | Large-eddy simulation of flow and combustion dynamics in a lean partially premixed swirling combustor. Journal of the Energy Institute, 2017, 90, 120-131. | 2.7 | 15 |
| 30 | Numerical investigation of the partitioning phenomenon of carbon dioxide and multiple impurities in deep saline aquifers. Applied Energy, 2017, 185, 1411-1423. | 5.1 | 15 |
| 31 | Jet flow and premixed jet flame control by plasma swirler. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 1158-1162. | 0.9 | 6 |
| 32 | A Large-Eddy Simulationâ€“Linear-Eddy Model Study of Preferential Diffusion Processes in a Partially Premixed Swirling Combustor With Synthesis Gases. Journal of Engineering for Gas Turbines and Power, 2017, 139, . | 0.5 | 3 |
| 33 | Fast Response, Highly Sensitive and Selective Mixed-Potential H<sub>2</sub> Sensor Based on (La,) Tj ETQq1 1 0.784314 rgBT /Over<br>17218-17225. | 4.0 | 41 |
| 34 | Analysis of the Chemical Structure in a Nonpremixed H 2 /N 2 Flame Using Large Eddy Simulation with Detailed Chemistry. Energy Procedia, 2017, 105, 1948-1952. | 1.8 | 0 |
| 35 | Numerical Investigation of the Effects of Impurity on CO 2 Sequestration in Stratified Formation. Energy Procedia, 2017, 105, 4248-4253. | 1.8 | 1 |
| 36 | A numerical study of the impurity effects on CO 2 geological storage in layered formation. Applied Energy, 2017, 199, 107-120. | 5.1 | 20 |

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|---|---|---|---|
| 37 | Effects of Fuel Composition on Biogas Combustion in Premixed Laminar Flames. Energy Procedia, 2017, 105, 1058-1062. | 1.8 | 18 |
| 38 | Investigation of the effect of DC electric field on a small ethanol diffusion flame. Fuel, 2017, 188, 621-627. | 3.4 | 35 |
| 39 | Simulation of electrical abuse of high-power lithium-ion batteries. Energy Procedia, 2017, 142, 3468-3473. | 1.8 | 1 |
| 40 | A study of small-scale CO 2 accidental release in near-field from a pressurized pipeline. Energy Procedia, 2017, 142, 3234-3239. | 1.8 | 3 |
| 41 | A LES-LEM Study of Preferential Diffusion Processes in a Partially Premixed Swirling Combustor With Synthesis Gases. , 2016, , . | | 3 |
| 42 | A study of using cosmic-ray muon radiography to detect CO2 leakage from a primary storage into geological formations. Environmental Earth Sciences, 2016, 75, 1. | 1.3 | 0 |
| 43 | A coupled thermal and electrochemical study of lithium-ion battery cooled by paraffin/porous-graphite-matrix composite. Journal of Power Sources, 2016, 315, 127-139. | 4.0 | 40 |
| 44 | The effects of chemical kinetic mechanisms on large eddy simulation (LES) of a nonpremixed hydrogen jet flame. International Journal of Hydrogen Energy, 2016, 41, 11427-11440. | 3.8 | 11 |
| 45 | A comparative study of instabilities in forced reacting plumes of nonpremixed flames. Journal of the Energy Institute, 2016, 89, 456-467. | 2.7 | 7 |
| 46 | A modelling study of the multiphase leakage flow from pressurised CO 2 pipeline. Journal of Hazardous Materials, 2016, 306, 286-294. | 6.5 | 34 |
| 47 | An experimental investigation of supercritical CO 2 accidental release from a pressurized pipeline. Journal of Supercritical Fluids, 2016, 107, 298-306. | 1.6 | 30 |
| 48 | An Investigation of Chromatographic Partitioning of CO2 and Multiple Impurities in Geological CO2 Sequestration. Energy Procedia, 2015, 75, 2240-2245. | 1.8 | 2 |
| 49 | Large-eddy Simulation of Flow and Combustion Dynamics in a Lean Partially-premixed Swirling Combustor. Energy Procedia, 2015, 66, 333-336. | 1.8 | 12 |
| 50 | A computational study of preferential diffusion and scalar transport in nonpremixed hydrogen-air flames. International Journal of Hydrogen Energy, 2015, 40, 15709-15722. | 3.8 | 18 |
| 51 | Experimental Investigation of CO2 Accidental Release from a Pressurised Pipeline. Energy Procedia, 2015, 75, 2221-2226. | 1.8 | 6 |
| 52 | Numerical analyses of the effects of nitrogen on the dissolution trapping mechanism of carbon dioxide geological storage. Computers and Fluids, 2015, 114, 1-11. | 1.3 | 22 |
| 53 | Numerical simulations of pressure buildup and salt precipitation during carbon dioxide storage in saline aquifers. Computers and Fluids, 2015, 121, 92-101. | 1.3 | 5 |
| 54 | An investigation of lithium-ion battery thermal management using paraffin/porous-graphite-matrix composite. Journal of Power Sources, 2015, 278, 50-68. | 4.0 | 160 |

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|---|---|---|---|
| 55 | The leakage behavior of supercritical CO2 flow in an experimental pipeline system. Applied Energy, 2014, 130, 574-580. | 5.1 | 59 |
| 56 | Numerical analyses of the solubility trapping of CO2 storage in geological formations. Applied Energy, 2014, 130, 581-591. | 5.1 | 32 |
| 57 | A numerical study of the impurity effects of nitrogen and sulfur dioxide on the solubility trapping of carbon dioxide geological storage. Applied Energy, 2014, 128, 60-74. | 5.1 | 35 |
| 58 | A theoretical and computational study of lithium-ion battery thermal management for electric vehicles using heat pipes. Journal of Power Sources, 2014, 257, 344-355. | 4.0 | 216 |
| 59 | The flow and heat transfer characteristics of supercritical CO2 leakage from a pipeline. Energy, 2014, 71, 665-672. | 4.5 | 41 |
| 60 | An experimental study on the leakage process of high pressure CO<sub>2</sub>from a pipeline transport system. , 2014, 4, 777-784. | | 5 |
| 61 | The Pressure Buildup and Salt Precipitation during CO 2 Storage in Closed Saline Aquifers. Communications in Computer and Information Science, 2014, , 66-77. | 0.4 | 0 |
| 62 | Modelling and monitoring of geological carbon storage: A perspective on cross-validation. Applied Energy, 2013, 112, 784-792. | 5.1 | 19 |
| 63 | Large-eddy simulation of mixing and combustion in a premixed swirling combustor with synthesis gases. Computers and Fluids, 2013, 88, 702-714. | 1.3 | 15 |
| 64 | Capturing CO2 in flue gas from fossil fuel-fired power plants using dry regenerable alkali metal-based sorbent. Progress in Energy and Combustion Science, 2013, 39, 515-534. | 15.8 | 179 |
| 65 | Upscaling and its application in numerical simulation of longâ€term CO<sub>2</sub> storage. , 2012, 2, 408-418. | | 29 |
| 66 | Swirling and Impinging Effects in an Annular Nonpremixed Jet Flame. Flow, Turbulence and Combustion, 2011, 86, 63-88. | 1.4 | 14 |
| 67 | Large Eddy Simulation of Diesel Fuel Injection and Mixing in a HSDI Engine. Flow, Turbulence and Combustion, 2011, 87, 473-491. | 1.4 | 10 |
| 68 | A review of physical modelling and numerical simulation of long-term geological storage of CO2. Applied Energy, 2011, 88, 3557-3566. | 5.1 | 139 |
| 69 | Numerical studies of vortex shedding in forced oscillatory non-premixed flames. IOP Conference Series: Materials Science and Engineering, 2010, 10, 012030. | 0.3 | 1 |
| 70 | Direct numerical simulation of the near-field dynamics of annular gas-liquid two-phase jets. Physics of Fluids, 2009, 21, 042103. | 1.6 | 8 |
| 71 | Dynamics of annular gasâ€“liquid two-phase swirling jets. International Journal of Multiphase Flow, 2009, 35, 450-467. | 1.6 | 16 |
| 72 | Numerical investigation of a perturbed swirling annular two-phase jet. International Journal of Heat and Fluid Flow, 2009, 30, 481-493. | 1.1 | 11 |

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|---|---|---|---|
| 73 | Parallel Direct Numerical Simulation of an Annular Gasâ€“Liquid Two-Phase Jet with Swirl. Springer Optimization and Its Applications, 2009, , 223-236. | 0.6 | 0 |
| 74 | A numerical study of an annular liquid jet in a compressible gas medium. International Journal of Multiphase Flow, 2008, 34, 393-407. | 1.6 | 11 |
| 75 | Analytical Equilibrium Swirling Inflow Conditions for Computational Fluid Dynamics. AIAA Journal, 2008, 46, 1015-1019. | 1.5 | 12 |
| 76 | Direct Numerical Simulation of a Non-Premixed Impinging Jet Flame. Journal of Heat Transfer, 2007, 129, 951-957. | 1.2 | 8 |
| 77 | Direct Computation of an Annular Liquid Jet. Journal of Algorithms and Computational Technology, 2007, 1, 103-126. | 0.4 | 8 |
| 78 | Analysis of Controlled Auto-Ignition/HCCI Combustion in a Direct Injection Gasoline Engine with Single and Split Fuel Injections. Combustion Science and Technology, 2007, 180, 176-205. | 1.2 | 15 |
| 79 | Investigation into Controlled Auto-Ignition Combustion in a GDI Engine with Single and Split Fuel Injections. , 2007, , . | | 11 |
| 80 | Direct numerical simulation of a liquid sheet in a compressible gas stream in axisymmetric and planar configurations. Theoretical and Computational Fluid Dynamics, 2007, 21, 447-471. | 0.9 | 9 |
| 81 | A COMPARATIVE RANS/LES STUDY OF TRANSIENT GAS JETS AND SPRAYS UNDER DIESEL CONDITIONS. , 2007, 17, 451-472. | | 10 |
| 82 | Simulation of the air/fuel mixing of an HSDI diesel engine. Part 1: A new dense spray vapour coupling submodel. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2006, 220, 1793-1805. | 1.1 | 3 |
| 83 | Numerical Investigation Into Effect of Fuel Injection Timing on CAI/HCCI Combustion in a Four-Stroke GDI Engine. International Journal for Computational Methods in Engineering Science and Mechanics, 2006, 7, 41-57. | 1.4 | 1 |
| 84 | Understanding the infiuence of valve timings on controlled autoignition combustion in a four-stroke port fuel injection engine. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2005, 219, 807-823. | 1.1 | 18 |
| 85 | Investigation into the Effect of Injection Timing on Stoichiometric and Lean CAI Operations in a 4-Stroke GDI Engine. , 0, , . | | 14 |