# Rui Song

List of Publications by Year
in descending order

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| 30 | 668 | 567281 15 | 580821 25 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 30 | 30 | 30 | 438 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Single and multiple objective optimization of a natural gas liquefaction process. Energy, 2017, 124, 19-28. | 8.8 | 81 |
| 2 | A new method to reconstruct structured mesh model from micro-computed tomography images of porous media and its application. International Journal of Heat and Mass Transfer, 2017, 109, 705-715. | 4.8 | 77 |
| 3 | A correlation for heat transfer and flow friction characteristics of the offset strip fin heat exchanger. International Journal of Heat and Mass Transfer, 2017, 115, 695-705. | 4.8 | 47 |
| 4 | A Comprehensive Experimental Study on Mechanical Behavior, Microstructure and Transport Properties of 3D-printed Rock Analogs. Rock Mechanics and Rock Engineering, 2020, 53, 5745-5765. | 5.4 | 47 |
| 5 | Comparative analysis on poreâ€scale permeability prediction on microâ€CT images of rock using numerical and empirical approaches. Energy Science and Engineering, 2019, 7, 2842-2854. | 4.0 | 46 |
| 6 | Study on the multiphase heat and mass transfer mechanism in the dissociation of methane hydrate in reconstructed real-shape porous sediments. Energy, 2022, 254, 124421. | 8.8 | 36 |
| 7 | Pore scale investigation on scaling-up micro-macro capillary number and wettability on trapping and mobilization of residual fluid. Journal of Contaminant Hydrology, 2019, 225, 103499. | 3.3 | 35 |
| 8 | Single- and multi-objective optimization of a plate-fin heat exchanger with offset strip fins adopting the genetic algorithm. Applied Thermal Engineering, 2019, 159, 113881. | 6.0 | 33 |
| 9 | Characterization and microfabrication of natural porous rocks: From micro-CT imaging and digital rock modelling to micro-3D-printed rock analogs. Journal of Petroleum Science and Engineering, 2021, 205, 108827. | 4.2 | 33 |
| 10 | Pore scale modeling on dissociation and transportation of methane hydrate in porous sediments. Energy, 2021, 237, 121630. | 8.8 | 23 |
| 11 | Evaluation of prediction models for the physical parameters in natural gas liquefaction processes. Journal of Natural Gas Science and Engineering, 2015, 27, 876-886. | 4.4 | 20 |
| 12 | Dissociation and transport modeling of methane hydrate in core-scale sandy sediments: A comparative study. Energy, 2021, 221, 119890. | 8.8 | 20 |
| 13 | Visualized Experiments on Residual Oil Classification and Its Influencing Factors in Waterflooding Using Micro-Computed Tomography. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, . | 2.3 | 19 |
| 14 | Numerical modeling on hydrate formation and evaluating the influencing factors of its heterogeneity in core-scale sandy sediment. Journal of Natural Gas Science and Engineering, 2021, 90, 103945. | 4.4 | 18 |
| 15 | A Pore-Scale Simulation on Thermal-Hydromechanical Coupling Mechanism of Rock. Geofluids, 2017, 2017, 1-12. | 0.7 | 15 |
| 16 | Poreâ€scale visualization and quantitative analysis of the spontaneous imbibition based on experiments and microâ€CT technology in lowâ€permeability mixedâ€wettability rock. Energy Science and Engineering, 2020, 8, 1840-1856. | 4.0 | 15 |
| 17 | Improvement of predictions of petrophysical transport behavior using three-dimensional finite volume element model with micro-CT images. Journal of Hydrodynamics, 2015, 27, 234-241. | 3.2 | 14 |
| 18 | Molecular simulation on competitive adsorption mechanism of CH4/CO2 on shale kerogen. Arabian Journal of Geosciences, 2018, 11, 1. | 1.3 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mass transfer model of fracture-controlled matrix unit: Model derivation and experimental verification based on fractal theory and micro-CT scanning technology. Energy Reports, 2020, 6, 3067-3079. | 5.1 | 13 |
| 20 | Investigation of water and CO<SUB align="right">2 flooding using pore-scale reconstructed model based on micro-CT images of Berea sandstone core. Progress in Computational Fluid Dynamics, 2015, 15, 317. | 0.2 | 11 |
| 21 | Performance Improvement of a Boil-off Gas Re-condensation Process with Pre-cooling at LNG Terminals. International Journal of Thermodynamics, 2015, 18, 74. | 1.0 | 11 |
| 22 | Single- and two-phase flow simulation based on equivalent pore network extracted from micro-CT images of sandstone core. SpringerPlus, 2016, 5, 817. | 1.2 | 10 |
| 23 | Comparative study of VOF, LS, and VOSET on pore-scale immiscible waterflooding modeling. Petroleum, 2021, 7, 314-324. | 2.8 | 9 |
| 24 | A Pore Scale Flow Simulation of Reconstructed Model Based on the Micro Seepage Experiment. Geofluids, 2017, 2017, 1-8. | 0.7 | 6 |
| 25 | Effects of Pore Structure on Sandstone Mechanical Properties Based on Micro-CT Reconstruction Model. Advances in Civil Engineering, 2020, 2020, 1-21. | 0.7 | 6 |
| 26 | Numerical Simulation on Hydromechanical Coupling in Porous Media Adopting Three-Dimensional Pore-Scale Model. Scientific World Journal, The, 2014, 2014, 1-8. | 2.1 | 5 |
| 27 | Evaluation of elastoplastic properties of brittle sandstone at microscale using microâ€indentation test and simulation. Energy Science and Engineering, 2020, 8, 3490-3501. | 4.0 | 2 |
| 28 | DESIGN AND FABRICATION OF ROCK-BASED MICROFLUIDICS BY 3D PRINTING: THE STRUCTURE CHARACTERIZATION AND PORE-SCALE FLOW EXPERIMENT VALIDATION. Journal of Porous Media, 2021, 24, 77-92. | 1.9 | 1 |
| 29 | Comprehensive Investigation of the Petrophysical and Two-Phase Flow Properties of the Tight Sandstone in Yanchang Formation, Ordos Basin, China: Insights from Computed Tomography Imaging and Pore Scale Modelling. Lithosphere, 2022, 2022, . | 1.4 | 1 |
| 30 | Discussion of Visual Technique for Seepage Experiment Based on Transparent Rock-Soil Material. Open Civil Engineering Journal, 2017, 11, 544-551. | 0.8 | 0 |