Jianjun Zhu

List of Publications by Year
in descending order

64 papers	1,400 citations	331670 21 h-index	361022 35 g-index
66 all docs	66 docs citations	66 times ranked	1026 citing authors

#	Article	IF	Citations
1	Mechanistic modeling of gas effect on Multi-stage Electrical submersible pump (ESP) performance with experimental validation. Chemical Engineering Science, 2022, 252, 117288.	3.8	10
2	Comprehensive review of wire arc additive manufacturing: Hardware system, physical process, monitoring, property characterization, application and future prospects. Results in Engineering, 2022, 13, 100330.	5.1	57
3	Flow Pattern Recognition in a Rotating Centrifugal Pump via Inflection Characteristics of the Performance Curves. , 2022, , .		1
4	Effect of cavitation and free-gas entrainment on the hydraulic performance of a centrifugal pump. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2021, 235, 440-453.	1.4	2
5	On the thermodynamic behaviors and interactions between bubble pairs: A numerical approach. Ultrasonics Sonochemistry, 2021, 70, 105297.	8.2	19
6	Performance degradation and wearing of Electrical Submersible Pump (ESP) with gas-liquid-solid flow: Experiments and mechanistic modeling. Journal of Petroleum Science and Engineering, 2021, 200, 108399.	4.2	5
7	Experiments and mechanistic modeling of viscosity effect on a multistage ESP performance under viscous fluid flow. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2021, 235, 1976-1991.	1.4	5
8	Experimental studies of unsteady cavitation at the tongue of a pump-turbine in pump mode. Renewable Energy, 2021, 177, 1265-1281.	8.9	19
9	A New Mechanistic Model for Emulsion Rheology and Boosting Pressure Prediction in Electrical Submersible Pumps (ESPs) under Oil-Water Two-Phase Flow. SPE Journal, 2021, 26, 667-684.	3.1	2
10	Experimental Study on Deteriorated Performance, Vibration, and Geometry Changes of an Electrical Submersible Pump Under Sand Water Flow Condition. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	2.3	7
11	A New Mechanistic Model To Predict Boosting Pressure of Electrical Submersible Pumps Under High-Viscosity Fluid Flow with Validations by Experimental Data. SPE Journal, 2020, 25, 744-758.	3.1	8
12	CFD Simulations of Oil Viscosity and Emulsion Effects on ESP Stage Performance. , 2020, , .		1
13	Flow pattern recognition inside a rotodynamic multiphase pump via developed entropy production diagnostic model. Journal of Petroleum Science and Engineering, 2020, 194, 107467.	4.2	18
14	Formation and rupture mechanisms of visco-elastic interfacial films in polymer-stabilized emulsions. Journal of Dispersion Science and Technology, 2019, 40, 612-626.	2.4	55
15	A New Mechanistic Model for Oil-Water Emulsion Rheology and Boosting Pressure Prediction in Electrical Submersible Pumps ESP. , 2019, , .		11
16	Modeling flow pattern transitions in electrical submersible pump under gassy flow conditions. Journal of Petroleum Science and Engineering, 2019, 180, 471-484.	4.2	17
17	A New Mechanistic Model to Predict Boosting Pressure of Electrical Submersible Pumps ESPs Under High-Viscosity Fluid Flow with Validations by Experimental Data. , 2019, , .		19
18	Wear and Its Effect on Electrical Submersible Pump ESP Performance Degradation by Sandy Flow: Experiments and Modeling. , 2019, , .		4

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19	A Transient Plunger Lift Model for Liquid Unloading from Gas Wells. , 2019, , .		5
20	Experimental Study of Sand Erosion in Multistage Electrical Submersible Pump ESP: Performance Degradation, Wear and Vibration. , 2019, , .		8
21	A numerical study on flow patterns inside an electrical submersible pump (ESP) and comparison with visualization experiments. Journal of Petroleum Science and Engineering, 2019, 173, 339-350.	4.2	68
22	A Numerical Study on Erosion Model Selection and Effect of Pump Type and Sand Characters in Electrical Submersible Pumps by Sandy Flow. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	2.3	20
23	Understanding the Phenomenon of Dissolved Gas Migration of Gas in Riser During Drilling Operations. , 2019, , .		0
24	A Numerical Study of Turbulence Model and Rebound Model Effect on Erosion Simulations in an Electrical Submersible Pump (ESP). , 2019, , .		5
25	Flow Pattern Prediction in Electrical Submersible Pump (ESP) Under Gassy Flow Conditions Using Transient Multiphase CFD Methods With Visualization Experimental Validation. , 2018, , .		0
26	Sand Erosion Model Prediction, Selection and Comparison for Electrical Submersible Pump (ESP) Using CFD Method. , 2018, , .		11
27	A Mechanistic Model to Predict Flow Pattern Transitions in Electrical Submersible Pump under Gassy Flow Condition. , 2018, , .		8
28	Mechanistic Modeling of Electrical Submersible Pump ESP Boosting Pressure Under Gassy Flow Conditions and Experimental Validation. , 2018, , .		3
29	Surfactant effect on air/water flow in a multistage electrical submersible pump (ESP). Experimental Thermal and Fluid Science, 2018, 98, 95-111.	2.7	30
30	Well completion issues for underground gas storage in oil and gas reservoirs in China. Journal of Petroleum Science and Engineering, 2018, 171, 584-591.	4.2	42
31	A Review of Experiments and Modeling of Gas-Liquid Flow in Electrical Submersible Pumps. Energies, 2018, 11, 180.	3.1	71
32	Numerical Study on Electrical-Submersible-Pump Two-Phase Performance and Bubble-Size Modeling. SPE Production and Operations, 2017, 32, 267-278.	0.6	41
33	Experimental study and mechanistic modeling of pressure surging in electrical submersible pump. Journal of Natural Gas Science and Engineering, 2017, 45, 625-636.	4.4	51
34	Efficiency and Critical Velocity Analysis of Gravitational Separator Through CFD Simulation. , 2017, , .		7
35	An Experimental Study of Surfactant Effect on Gas Tolerance in Electrical Submersible Pump (ESP). , 2017, , .		4
36	CFD simulation and experimental study of oil viscosity effect on multi-stage electrical submersible pump (ESP) performance. Journal of Petroleum Science and Engineering, 2016, 146, 735-745.	4.2	62

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37	Mechanistic modeling and numerical simulation of in-situ gas void fraction inside ESP impeller. Journal of Natural Gas Science and Engineering, 2016, 36, 144-154.	4.4	44
38	Experimental studies on overall property of thermoelectric modules with sandwiched structures. Science Bulletin, 2014, 59, 571-576.	1.7	2
39	CFD Simulation of ESP Performance and Bubble Size Estimation under Gassy Conditions. , 2014, , .		18
40	Heat transfer and pressure drop of nanofluids containing carbon nanotubes in laminar flows. Experimental Thermal and Fluid Science, 2013, 44, 716-721.	2.7	166
41	Electrochemical Determination of Dopamine Using a Mesoporous MnO₂/Polypyrrole-Modified Electrode. Nanoscience and Nanotechnology Letters, 2013, 5, 673-676.	0.4	4
42	Structure of ionic liquids under external electric field: a molecular dynamics simulation. Molecular Simulation, 2012, 38, 172-178.	2.0	38
43	Effect of thermal coarsening on the thermal conductivity of nanoporous gold. Journal of Materials Science, 2012, 47, 5013-5018.	3.7	26
44	The Electron-Transfer Rate Processes In Biological Systems. , 2009, , .		1
45	Solvent Dynamics Effect in Condensed-Phase Electron-Transfer Reactions. Journal of Physical Chemistry B, 2008, 112, 3735-3745.	2.6	3
46	Experimental and computational studies on the solvation of lithium tetrafluorobrate in dimethyl sulfoxide. Journal of Raman Spectroscopy, 2007, 38, 865-872.	2.5	37
47	Ligand reorganization and activation energies in nonadiabatic electron transfer reactions. Journal of Chemical Physics, 2006, 125, 164511.	3.0	6
48	Dynamic salt effect on intramolecular charge-transfer reactions. Journal of Chemical Physics, 2005, 123, 224505.	3.0	9
49	Simulation of excited state proton transfer reaction kinetics. Journal of Chemical Physics, 1999, 110, 9587-9597.	3.0	15
50	Simulation of Proton Transfer Reaction Rates:Â The Role of Solvent Electronic Polarization. Journal of Physical Chemistry B, 1997, 101, 7180-7190.	2.6	35
51	On the role of solvent electronic polarization in charge transfer reactions. Journal of Chemical Physics, 1995, 102, 8398-8413.	3.0	13
52	An imaginary energy methodâ€based formulation of a quantum rate theory. Journal of Chemical Physics, 1995, 102, 4123-4130.	3.0	9
53	Solvent dynamics and electron transfer reactions. AIP Conference Proceedings, 1994, , .	0.4	2
54	Solvent dynamical effects on electron transfer reactions. Journal of Chemical Physics, 1994, 101, 9966-9981.	3.0	21

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55	Solvent dynamical effects on bondâ€breaking electron transfer reactions. Journal of Chemical Physics, 1994, 100, 8109-8124.	3.0	22
56	A meanâ€field theory of a localized excess electron in a polar fluid. Journal of Chemical Physics, 1993, 99, 5384-5395.	3.0	20
57	A quantum molecular dynamics simulation of an excess electron in methanol. Journal of Chemical Physics, 1993, 98, 5679-5693.	3.0	55
58	An integral equation approximation for the dynamics of reversible electronâ€transfer reactions. Journal of Chemical Physics, 1993, 98, 1213-1227.	3.0	24
59	A meanâ€field theory of a localized excess electron in a classical fluid. Journal of Chemical Physics, 1993, 99, 1288-1299.	3.0	16
60	Reversible electron transfer dynamics in nonâ€Debye solvents. Journal of Chemical Physics, 1992, 96, 1435-1443.	3.0	28
61	Dynamics of reversible electron transfer reactions. Journal of Chemical Physics, 1991, 95, 3325-3340.	3.0	42
62	Unsymmetrical electrolytes with adhesive interactions. Journal of Chemical Physics, 1991, 94, 3141-3149.	3.0	18
63	Cavity functions and association in models for weak electrolytes and sticky hard spheres. Journal of Chemical Physics, 1990, 92, 7554-7564.	3.0	19
64	Solvent effects in weak electrolytes. II. Dipolar hard sphere solvent and the sticky electrolyte model with L=Ïƒ. Journal of Chemical Physics, 1989, 91, 505-516.	3.0	10