

# Jianjun Zhu

## List of Publications by Year in descending order

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64  
papers

1,400  
citations

331642

21  
h-index

361001

35  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1026  
citing authors

#	ARTICLE	IF	CITATIONS
1	Heat transfer and pressure drop of nanofluids containing carbon nanotubes in laminar flows. <i>Experimental Thermal and Fluid Science</i> , 2013, 44, 716-721.	2.7	166
2	A Review of Experiments and Modeling of Gas-Liquid Flow in Electrical Submersible Pumps. <i>Energies</i> , 2018, 11, 180.	3.1	71
3	A numerical study on flow patterns inside an electrical submersible pump (ESP) and comparison with visualization experiments. <i>Journal of Petroleum Science and Engineering</i> , 2019, 173, 339-350.	4.2	68
4	CFD simulation and experimental study of oil viscosity effect on multi-stage electrical submersible pump (ESP) performance. <i>Journal of Petroleum Science and Engineering</i> , 2016, 146, 735-745.	4.2	62
5	Comprehensive review of wire arc additive manufacturing: Hardware system, physical process, monitoring, property characterization, application and future prospects. <i>Results in Engineering</i> , 2022, 13, 100330.	5.1	57
6	A quantum molecular dynamics simulation of an excess electron in methanol. <i>Journal of Chemical Physics</i> , 1993, 98, 5679-5693.	3.0	55
7	Formation and rupture mechanisms of visco-elastic interfacial films in polymer-stabilized emulsions. <i>Journal of Dispersion Science and Technology</i> , 2019, 40, 612-626.	2.4	55
8	Experimental study and mechanistic modeling of pressure surging in electrical submersible pump. <i>Journal of Natural Gas Science and Engineering</i> , 2017, 45, 625-636.	4.4	51
9	Mechanistic modeling and numerical simulation of in-situ gas void fraction inside ESP impeller. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 36, 144-154.	4.4	44
10	Dynamics of reversible electron transfer reactions. <i>Journal of Chemical Physics</i> , 1991, 95, 3325-3340.	3.0	42
11	Well completion issues for underground gas storage in oil and gas reservoirs in China. <i>Journal of Petroleum Science and Engineering</i> , 2018, 171, 584-591.	4.2	42
12	Numerical Study on Electrical-Submersible-Pump Two-Phase Performance and Bubble-Size Modeling. <i>SPE Production and Operations</i> , 2017, 32, 267-278.	0.6	41
13	Structure of ionic liquids under external electric field: a molecular dynamics simulation. <i>Molecular Simulation</i> , 2012, 38, 172-178.	2.0	38
14	Experimental and computational studies on the solvation of lithium tetrafluoroborate in dimethyl sulfoxide. <i>Journal of Raman Spectroscopy</i> , 2007, 38, 865-872.	2.5	37
15	Simulation of Proton Transfer Reaction Rates: The Role of Solvent Electronic Polarization. <i>Journal of Physical Chemistry B</i> , 1997, 101, 7180-7190.	2.6	35
16	Surfactant effect on air/water flow in a multistage electrical submersible pump (ESP). <i>Experimental Thermal and Fluid Science</i> , 2018, 98, 95-111.	2.7	30
17	Reversible electron transfer dynamics in non-Debye solvents. <i>Journal of Chemical Physics</i> , 1992, 96, 1435-1443.	3.0	28
18	Effect of thermal coarsening on the thermal conductivity of nanoporous gold. <i>Journal of Materials Science</i> , 2012, 47, 5013-5018.	3.7	26

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19	An integral equation approximation for the dynamics of reversible electron–transfer reactions. <i>Journal of Chemical Physics</i> , 1993, 98, 1213-1227.	3.0	24
20	Solvent dynamical effects on bond-breaking electron transfer reactions. <i>Journal of Chemical Physics</i> , 1994, 100, 8109-8124.	3.0	22
21	Solvent dynamical effects on electron transfer reactions. <i>Journal of Chemical Physics</i> , 1994, 101, 9966-9981.	3.0	21
22	A mean-field theory of a localized excess electron in a polar fluid. <i>Journal of Chemical Physics</i> , 1993, 99, 5384-5395.	3.0	20
23	A Numerical Study on Erosion Model Selection and Effect of Pump Type and Sand Characters in Electrical Submersible Pumps by Sandy Flow. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2019, 141, .	2.3	20
24	Cavity functions and association in models for weak electrolytes and sticky hard spheres. <i>Journal of Chemical Physics</i> , 1990, 92, 7554-7564.	3.0	19
25	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
26	On the thermodynamic behaviors and interactions between bubble pairs: A numerical approach. <i>Ultrasonics Sonochemistry</i> , 2021, 70, 105297.	8.2	19
27	Experimental studies of unsteady cavitation at the tongue of a pump-turbine in pump mode. <i>Renewable Energy</i> , 2021, 177, 1265-1281.	8.9	19
28	Unsymmetrical electrolytes with adhesive interactions. <i>Journal of Chemical Physics</i> , 1991, 94, 3141-3149.	3.0	18
29	CFD Simulation of ESP Performance and Bubble Size Estimation under Gassy Conditions. , 2014, , .		18
30	Flow pattern recognition inside a rotodynamic multiphase pump via developed entropy production diagnostic model. <i>Journal of Petroleum Science and Engineering</i> , 2020, 194, 107467.	4.2	18
31	Modeling flow pattern transitions in electrical submersible pump under gassy flow conditions. <i>Journal of Petroleum Science and Engineering</i> , 2019, 180, 471-484.	4.2	17
32	A mean-field theory of a localized excess electron in a classical fluid. <i>Journal of Chemical Physics</i> , 1993, 99, 1288-1299.	3.0	16
33	Simulation of excited state proton transfer reaction kinetics. <i>Journal of Chemical Physics</i> , 1999, 110, 9587-9597.	3.0	15
34	On the role of solvent electronic polarization in charge transfer reactions. <i>Journal of Chemical Physics</i> , 1995, 102, 8398-8413.	3.0	13
35	Sand Erosion Model Prediction, Selection and Comparison for Electrical Submersible Pump (ESP) Using CFD Method. , 2018, , .		11
36	A New Mechanistic Model for Oil-Water Emulsion Rheology and Boosting Pressure Prediction in Electrical Submersible Pumps ESP. , 2019, , .		11

#	ARTICLE	IF	CITATIONS
37	Solvent effects in weak electrolytes. II. Dipolar hard sphere solvent and the sticky electrolyte model with $L^{-1}f$ . Journal of Chemical Physics, 1989, 91, 505-516.	3.0	10
38	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
39	An imaginary energy methodâ€based formulation of a quantum rate theory. Journal of Chemical Physics, 1995, 102, 4123-4130.	3.0	9
40	Dynamic salt effect on intramolecular charge-transfer reactions. Journal of Chemical Physics, 2005, 123, 224505.	3.0	9
41	A Mechanistic Model to Predict Flow Pattern Transitions in Electrical Submersible Pump under Gassy Flow Condition. , 2018, , .		8
42	Experimental Study of Sand Erosion in Multistage Electrical Submersible Pump ESP: Performance Degradation, Wear and Vibration. , 2019, , .		8
43	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
44	Efficiency and Critical Velocity Analysis of Gravitational Separator Through CFD Simulation. , 2017, , .		7
45	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
46	Ligand reorganization and activation energies in nonadiabatic electron transfer reactions. Journal of Chemical Physics, 2006, 125, 164511.	3.0	6
47	A Transient Plunger Lift Model for Liquid Unloading from Gas Wells. , 2019, , .		5
48	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
49	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
50	A Numerical Study of Turbulence Model and Rebound Model Effect on Erosion Simulations in an Electrical Submersible Pump (ESP). , 2019, , .		5
51	An Experimental Study of Surfactant Effect on Gas Tolerance in Electrical Submersible Pump (ESP). , 2017, , .		4
52	Wear and Its Effect on Electrical Submersible Pump ESP Performance Degradation by Sandy Flow: Experiments and Modeling. , 2019, , .		4
53	Electrochemical Determination of Dopamine Using a Mesoporous $MnO_2$ /Polypyrrole-Modified Electrode. Nanoscience and Nanotechnology Letters, 2013, 5, 673-676.	0.4	4
54	Solvent Dynamics Effect in Condensed-Phase Electron-Transfer Reactions. Journal of Physical Chemistry B, 2008, 112, 3735-3745.	2.6	3

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55	Mechanistic Modeling of Electrical Submersible Pump ESP Boosting Pressure Under Gassy Flow Conditions and Experimental Validation. , 2018, , .		3
56	Solvent dynamics and electron transfer reactions. AIP Conference Proceedings, 1994, , .	0.4	2
57	Experimental studies on overall property of thermoelectric modules with sandwiched structures. Science Bulletin, 2014, 59, 571-576.	1.7	2
58	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
59	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
60	The Electron-Transfer Rate Processes In Biological Systems. , 2009, , .		1
61	CFD Simulations of Oil Viscosity and Emulsion Effects on ESP Stage Performance. , 2020, , .		1
62	Flow Pattern Recognition in a Rotating Centrifugal Pump via Inflection Characteristics of the Performance Curves. , 2022, , .		1
63	Flow Pattern Prediction in Electrical Submersible Pump (ESP) Under Gassy Flow Conditions Using Transient Multiphase CFD Methods With Visualization Experimental Validation. , 2018, , .		0
64	Understanding the Phenomenon of Dissolved Gas Migration of Gas in Riser During Drilling Operations. , 2019, , .		0