

Baojun Bai

List of Publications by Year in descending order

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113
papers

4,907
citations

94269

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h-index

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docs citations

113
times ranked

1575
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive review of in-situ polymer gel simulation for conformance control. <i>Petroleum Science</i> , 2022, 19, 189-202.	2.4	31
2	Comprehensive evaluation of a high-temperature resistant re-crosslinkable preformed particle gel for water management. <i>Fuel</i> , 2022, 309, 122086.	3.4	23
3	Descriptive statistical analysis of experimental data for wettability alteration with surfactants in carbonate reservoirs. <i>Fuel</i> , 2022, 310, 122110.	3.4	27
4	A Novel Branched Polymer Gel System with Delayed Gelation Property for Conformance Control. <i>SPE Journal</i> , 2022, 27, 105-115.	1.7	7
5	Selective penetration behavior of microgels in superpermeable channels and reservoir matrices. <i>Journal of Petroleum Science and Engineering</i> , 2022, 210, 109897.	2.1	10
6	Experimental Study of Transport Behavior of Swellable Microgel Particles in Superpermeable Channels for Conformance Control. <i>SPE Journal</i> , 2022, 27, 790-805.	1.7	15
7	Impact of Polymer Rheology on Gel Treatment Performance of Horizontal Wells with Severe Channeling. <i>SPE Journal</i> , 2022, , 1-15.	1.7	7
8	Laboratory Evaluation of Placement Behavior of Microgels for Conformance Control in Reservoirs Containing Superpermeable Channels. <i>Energy & Fuels</i> , 2022, 36, 1374-1387.	2.5	3
9	Chitosan/Polyacrylamide Green Gels for Water Control in High-Temperature Reservoirs. <i>Energy & Fuels</i> , 2022, 36, 3816-3824.	2.5	8
10	Comprehensive Evaluation of a Novel Recrosslinkable Hyper Branched Preformed Particle Gels for the Conformance Control of High Temperature Reservoirs. , 2022, , .		0
11	Laboratory evaluation of a novel Self-healable polymer gel for CO ₂ leakage remediation during CO ₂ storage and CO ₂ flooding. <i>Chemical Engineering Journal</i> , 2022, 444, 136635.	6.6	19
12	Evaluation of a Novel Recrosslinkable Hyperbranched Preformed Particle Gel for the Conformance Control of High-Temperature Reservoirs with Fractures. <i>SPE Journal</i> , 2022, 27, 3598-3610.	1.7	9
13	Comprehensive Review of Polymer and Polymer Gel Treatments for Natural Gas-Related Conformance Control. <i>Gels</i> , 2022, 8, 353.	2.1	8
14	A comprehensive review of experimental evaluation methods and results of polymer micro/nanogels for enhanced oil recovery and reduced water production. <i>Fuel</i> , 2022, 324, 124664.	3.4	20
15	A Novel Numerical Model of Gelant Inaccessible Pore Volume for In Situ Gel Treatment. <i>Gels</i> , 2022, 8, 375.	2.1	1
16	Evaluation of Ultrahigh-Temperature-Resistant Preformed Particle Gels for Conformance Control in North Sea Reservoirs. <i>SPE Journal</i> , 2022, 27, 3660-3673.	1.7	5
17	Characterization and oil recovery enhancement by a polymeric nanogel combined with surfactant for sandstone reservoirs. <i>Petroleum Science</i> , 2021, 18, 123-135.	2.4	15
18	Comprehensive Review of Sealant Materials for Leakage Remediation Technology in Geological CO ₂ Capture and Storage Process. <i>Energy & Fuels</i> , 2021, 35, 4711-4742.	2.5	43

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19	Investigation of Slickwater Effect on Permeability of Gas Shale from Longmaxi Formation. Energy & Fuels, 2021, 35, 3104-3111.	2.5	10
20	Development and Evaluation of Ultra-High Temperature Resistant Preformed Particle Gels for Conformance Control in North Sea Reservoirs. , 2021, , .		0
21	Experimental study of degradable preformed particle gel (DPPG) as temporary plugging agent for carbonate reservoir matrix acidizing to improve oil recovery. Journal of Petroleum Science and Engineering, 2021, 205, 108760.	2.1	33
22	Review of transport mechanisms and numerical simulation studies of preformed particle gel for conformance control. Journal of Petroleum Science and Engineering, 2021, 206, 109051.	2.1	32
23	Ultra-high temperature resistant preformed particle gels for enhanced oil recovery. Chemical Engineering Journal, 2021, 426, 130712.	6.6	41
24	Combining Particles with Surfactants to Improve Microscopic Displacement and Sweep Efficiency. Petroleum Engineering, 2021, , 247-288.	0.6	1
25	Understanding the Plugging Performance of HPAM-Cr (III) Polymer Gel for CO2 Conformance Control. SPE Journal, 2021, 26, 3109-3118.	1.7	28
26	Systematic Evaluation of a Novel Self-Healing Poly(acrylamide-co-vinyl acetate)/Alginate Polymer Gel for Fluid Flow Control in High Temperature and High Salinity Reservoirs. Polymers, 2021, 13, 3616.	2.0	2
27	Propagation of Swellable Microgels through Superpermeable Channels: Impact of Particle-Pore Matching Size Relationship. Energy & Fuels, 2021, 35, 18533-18542.	2.5	4
28	Combining Preformed Particle Gel and Curable Resin-Coated Particles To Control Water Production from High-Temperature and High-Salinity Fractured Producers. SPE Journal, 2020, 25, 938-950.	1.7	20
29	Impacts of crosslinker concentration on nanogel properties and enhanced oil recovery capability. Fuel, 2020, 267, 117098.	3.4	15
30	Development of a hybrid scoring system for EOR screening by combining conventional screening guidelines and random forest algorithm. Fuel, 2019, 256, 115915.	3.4	28
31	Gel composition and brine concentration effect on hydrogel dehydration subjected to uniaxial compression. Journal of Petroleum Science and Engineering, 2019, 182, 106358.	2.1	12
32	A Recrosslinkable Preformed Particle Gel for Conformance Control in Heterogeneous Reservoirs Containing Linear-Flow Features. SPE Journal, 2019, 24, 1714-1725.	1.7	47
33	Experimental Evaluation of Oxidizing Breakers for a Polyacrylamide-Based Re-Crosslinkable Preformed Particle Gel. Energy & Fuels, 2019, 33, 5001-5010.	2.5	27
34	Investigation and Characterization of a Robust Nanocomposite Preformed Particle Gel for Enhanced Oil Recovery. Energy & Fuels, 2019, 33, 5055-5066.	2.5	17
35	Effect of multiple factors on preformed particle gel placement, dehydration, and plugging performance in partially open fractures. Fuel, 2019, 251, 73-81.	3.4	40
36	Investigation on transport behavior of nanogel in low permeable porous medium. Journal of Petroleum Science and Engineering, 2019, 178, 999-1005.	2.1	7

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37	Water Plugging Performance of Preformed Particle Gel in Partially Filled Fractures. Industrial & Engineering Chemistry Research, 2019, 58, 6778-6784.	1.8	16
38	Understanding the Plugging Performance of HPAM-Cr(III) Polymer Gel For CO2 Conformance Control. , 2019, , .		1
39	Identification of CO2 sequestration opportunities: CO2 miscible flooding guidelines. Fuel, 2019, 241, 459-467.	3.4	50
40	Preparation and salt-insensitive behavior study of swellable, Cr ³⁺ -embedded microgels for water management. Journal of Molecular Liquids, 2019, 273, 551-558.	2.3	25
41	Evaluation of Terpolymer-Gel Systems Crosslinked by Polyethylenimine for Conformance Improvement in High-Temperature Reservoirs. SPE Journal, 2019, 24, 1726-1740.	1.7	41
42	Areal sweep efficiency improvement by integrating preformed particle gel and low salinity water flooding in fractured reservoirs. Fuel, 2018, 221, 380-392.	3.4	43
43	Effect of supercritical CO2 on the dehydration of polyacrylamide-based super-absorbent polymer used for water management. Fuel, 2018, 224, 628-636.	3.4	13
44	Highly Deformable Nano-Cross-Linker-Bridged Nanocomposite Hydrogels for Water Management of Oil Recovery. Energy & Fuels, 2018, 32, 3068-3076.	2.5	14
45	In Situ Surface Decorated Polymer Microsphere Technology for Enhanced Oil Recovery in High-Temperature Petroleum Reservoirs. Energy & Fuels, 2018, 32, 3312-3321.	2.5	41
46	Using Screen Models to Evaluate the Injection Characteristics of Particle Gels for Water Control. Energy & Fuels, 2018, 32, 352-359.	2.5	15
47	Combined ionically modified seawater and microgels to improve oil recovery in fractured carbonate reservoirs. Journal of Petroleum Science and Engineering, 2018, 162, 434-445.	2.1	19
48	Low temperature applicable polyelectrolyte gelator to covalently bridged partially hydrolyzed poly(acrylamide) in situ gel for fossil energy recovery. Chemical Engineering Journal, 2018, 334, 2558-2567.	6.6	17
49	Preformed particle gel propagation and dehydration through semi-transparent fractures and their effect on water flow. Journal of Petroleum Science and Engineering, 2018, 167, 549-558.	2.1	27
50	Combining preformed particle gel and low salinity waterflooding to improve conformance control in fractured reservoirs. Fuel, 2018, 221, 501-512.	3.4	27
51	Experimental study of combining low salinity water flooding and preformed particle gel to enhance oil recovery for fractured carbonate reservoirs. Fuel, 2018, 214, 342-350.	3.4	50
52	Evaluation of Gel Treatment in Fractured Reservoir Using Embedded Discrete Fracture Model: Experimental and Simulation Investigation. , 2018, , .		2
53	A Novel Re-Crosslinkable Preformed Particle Gel for Conformance Control in Extreme Heterogeneous Reservoirs. , 2018, , .		12
54	Integrating Microgel-Low Salinity Waterflooding to Improve Production Profile in Non-Crossflow Heterogeneous Reservoir. , 2018, , .		1

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55	Micro-particle gel transport performance through unconsolidated sandstone and its blocking to water flow during conformance control treatments. <i>Fuel</i> , 2018, 231, 479-488.	3.4	45
56	Terpolymer Gel System Formed by Resorcinolâ€“Hexamethylenetetramine for Water Management in Extremely High-Temperature Reservoirs. <i>Energy & Fuels</i> , 2017, 31, 1519-1528.	2.5	58
57	Mechanically robust re-crosslinkable polymeric hydrogels for water management of void space conduits containing reservoirs. <i>Chemical Engineering Journal</i> , 2017, 317, 952-960.	6.6	70
58	The plugging performance of preformed particle gel to water flow through large opening void space conduits. <i>Journal of Petroleum Science and Engineering</i> , 2017, 156, 51-61.	2.1	48
59	Waterâ€“free synthesis of temperatureâ€“sensitive polyacrylamide microgels and pore modeled oil recovery performance. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	5
60	Research on matching mechanism between polymer microspheres with different storage modulus and pore throats in the reservoir. <i>Powder Technology</i> , 2017, 313, 191-200.	2.1	65
61	Descriptive statistical analysis for the PPG field applications in China: Screening guidelines, design considerations, and performances. <i>Journal of Petroleum Science and Engineering</i> , 2017, 153, 1-11.	2.1	41
62	Preformed-Particle-Gel Transport Through Heterogeneous Void-Space Conduits. <i>SPE Journal</i> , 2017, 22, 1437-1447.	1.7	42
63	New laboratory study and transport model implementation of microgels for conformance and mobility control purposes. <i>Fuel</i> , 2017, 192, 158-168.	3.4	30
64	Data analysis and application guidelines for the microgel field applications. <i>Fuel</i> , 2017, 210, 557-568.	3.4	10
65	Dehydration of polyacrylamide-based super-absorbent polymer swollen in different concentrations of brine under CO ₂ conditions. <i>Fuel</i> , 2017, 210, 32-40.	3.4	15
66	Effect of Different Phenolic Compounds on Performance of Organically Cross-Linked Terpolymer Gel Systems at Extremely High Temperatures. <i>Energy & Fuels</i> , 2017, 31, 8120-8130.	2.5	33
67	Development of Thermotransformable Controlled Hydrogel for Enhancing Oil Recovery. <i>Energy & Fuels</i> , 2017, 31, 13600-13609.	2.5	45
68	Polymer Gel Systems for Water Management in High-Temperature Petroleum Reservoirs: A Chemical Review. <i>Energy & Fuels</i> , 2017, 31, 13063-13087.	2.5	232
69	Evaluation of combined low-salinity water and microgel treatments to improve oil recovery using partial fractured carbonate models. <i>Journal of Petroleum Science and Engineering</i> , 2017, 158, 80-91.	2.1	14
70	Experimental work to determine the effect of load pressure on the gel pack permeability of strong and weak preformed particle gels. <i>Fuel</i> , 2017, 188, 332-342.	3.4	34
71	Comprehensive review of water shutoff methods for horizontal wells. <i>Petroleum Exploration and Development</i> , 2017, 44, 1022-1029.	3.0	61
72	Mitigating permeability contrasts in heterogenous reservoirs using advanced preformed particle gels. <i>International Journal of Oil, Gas and Coal Technology</i> , 2016, 13, 103.	0.1	2

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73	Effect of back pressure on the gel pack permeability in mature reservoir. Fuel, 2016, 183, 449-456.	3.4	20
74	Use of Hydrochloric Acid To Remove Filter-Cake Damage From Preformed Particle Gel During Conformance-Control Treatments. SPE Production and Operations, 2016, 31, 247-257.	0.4	25
75	Evaluation of Preformed Particle Gels Penetration into Matrix for a Conformance Control Treatment in Partially Open Conduits. , 2016, , .		13
76	Survey and Data Analysis of the Pilot and Field Polymer Flooding Projects in China. , 2016, , .		15
77	Influence of strong preformed particle gels on low permeable formations in mature reservoirs. Petroleum Science, 2016, 13, 77-90.	2.4	39
78	Rheology Properties and Plugging Performance of Fluorescent Polyacrylamide Microspheres in Fractures. Journal of Dispersion Science and Technology, 2016, 37, 345-351.	1.3	15
79	Minimizing Formation Damage for Preformed Particle Gels in Mature Reservoirs. , 2015, , .		10
80	3D Simulation of Low Salinity, Polymer, Conventional, Water-flooding & Combination IOR Methods â€œ Heterogeneous & Varying Wetting Conditions. , 2015, , .		10
81	Preformed-Particle-Gel Extrusion Through Open Conduits During Conformance-Control Treatments. SPE Journal, 2015, 20, 1083-1093.	1.7	93
82	Preformed Particle Gel Propagation Through Super-K Permeability Sand and Its Resistance to Water Flow During Conformance Control. , 2015, , .		18
83	Effect of polymer on gas flow behavior in microfractures of unconventional gas reservoirs. Journal of Natural Gas Science and Engineering, 2015, 23, 26-32.	2.1	13
84	Optimizing the strength and size of preformed particle gels for better conformance control treatment. Fuel, 2015, 148, 178-185.	3.4	129
85	Mechanism and Influencing Factors on the Initial Particle Size and Swelling Capability of Viscoelastic Microspheres. Journal of Dispersion Science and Technology, 2015, 36, 1673-1684.	1.3	43
86	A comprehensive review of polyacrylamide polymer gels for conformance control. Petroleum Exploration and Development, 2015, 42, 525-532.	3.0	317
87	Effect of polymer on disproportionate permeability reduction to gas and water for fractured shales. Fuel, 2015, 143, 28-37.	3.4	59
88	A laboratory and simulation study of preformed particle gels for water conformance control. Fuel, 2015, 140, 502-513.	3.4	152
89	Development of enhanced nanocomposite preformed particle gels for conformance control in high-temperature and high-salinity oil reservoirs. Polymer Journal, 2014, 46, 277-284.	1.3	58
90	Degradable nanocomposite preformed particle gel for chemical enhanced oil recovery applications. Journal of Petroleum Science and Engineering, 2014, 124, 35-45.	2.1	72

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91	Preformed Particle Gel-Enhanced Surfactant Imbibition for Improving Oil Recovery in Fractured Carbonate Reservoirs. , 2014, , .		19
92	Preformed Particle Gel Extrusion through Open Conduits during Conformance Control Treatments. , 2014, , .		15
93	Evaluation of a nanocomposite hydrogel for water shut-off in enhanced oil recovery applications: Design, synthesis, and characterization. Journal of Applied Polymer Science, 2013, 128, 787-794.	1.3	98
94	Evaluation of potential fracture-sealing materials for remediating CO2 leakage pathways during CO2 sequestration. International Journal of Greenhouse Gas Control, 2013, 18, 128-138.	2.3	43
95	Rock characterization of Fayetteville shale gas plays. Fuel, 2013, 105, 645-652.	3.4	225
96	Adsorption of SDBS and Its Effect on Rheology of Preformed Particle Gels. Journal of Dispersion Science and Technology, 2013, 34, 539-545.	1.3	2
97	The Flow Behavior of Friction Reducer in Microchannels during Slickwater Fracturing. , 2013, , .		5
98	Field and Lab Experience with a Successful Preformed Particle Gel Conformance Control Technology. , 2013, , .		86
99	Effect of Weak Preformed Particle Gel on Unswept Oil Zones/Areas during Conformance Control Treatments. Industrial & Engineering Chemistry Research, 2012, 51, 11547-11554.	1.8	90
100	Experimental study of the interaction between surfactants and super absorbent polymer gel. Journal of Petroleum Science and Engineering, 2012, 90-91, 159-164.	2.1	32
101	Injecting Large Volumes of Preformed Particle Gel for Water Conformance Control. Oil and Gas Science and Technology, 2012, 67, 941-952.	1.4	37
102	Preformed-Particle-Gel Transport Through Open Fractures and Its Effect on Water Flow. SPE Journal, 2011, 16, 388-400.	1.7	166
103	Analysis of EOR projects and updated screening criteria. Journal of Petroleum Science and Engineering, 2011, 79, 10-24.	2.1	191
104	Applied Technologies and Prospects of Conformance Control Treatments in China. Oil and Gas Science and Technology, 2010, 65, 859-878.	1.4	116
105	Using Screening Test Results to Predict the Effective Viscosity of Swollen Superabsorbent Polymer Particles Extrusion through an Open Fracture. Industrial & Engineering Chemistry Research, 2010, 49, 12284-12293.	1.8	37
106	Case Study on Preformed Particle Gel for In-Depth Fluid Diversion. , 2008, , .		81
107	Modeling Particle Gel Propagation in Porous Media. , 2008, , .		29
108	Preformed Particle Gel for Conformance Control: Factors Affecting Its Properties and Applications. SPE Reservoir Evaluation and Engineering, 2007, 10, 415-422.	1.1	264

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109	Prefomed Particle Gel for Conformance Control: Transport Mechanism Through Porous Media. SPE Reservoir Evaluation and Engineering, 2007, 10, 176-184.	1.1	262
110	Application and Development of Chemical-Based Conformance Control Treatments in China Oil Fields. , 2006, , .		45
111	Prefomed Particle Gel for Conformance Control: Transport Mechanism Through Porous Media. , 2004, , .		40
112	Prefomed Particle Gel for Conformance Control: Factors Affecting its Properties and Applications. , 2004, , .		43
113	Pattern Recognition for Steam Flooding Field Applications Based on Hierarchical Clustering and Principal Component Analysis. ACS Omega, 0, , .	1.6	1