Baojun Bai

List of Publications by Year
in descending order

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113	4,907	94269	110170
papers	citations	37 h-index	64 g-index

113	113	113	1575
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A comprehensive review of polyacrylamide polymer gels for conformance control. Petroleum Exploration and Development, 2015, 42, 525-532.	3.0	317
2	Preformed Particle Gel for Conformance Control: Factors Affecting Its Properties and Applications. SPE Reservoir Evaluation and Engineering, 2007, 10, 415-422.	1.1	264
3	Preformed Particle Gel for Conformance Control: Transport Mechanism Through Porous Media. SPE Reservoir Evaluation and Engineering, 2007, 10, 176-184.	1.1	262
4	Polymer Gel Systems for Water Management in High-Temperature Petroleum Reservoirs: A Chemical Review. Energy & Fuels, 2017, 31, 13063-13087.	2.5	232
5	Rock characterization of Fayetteville shale gas plays. Fuel, 2013, 105, 645-652.	3.4	225
6	Analysis of EOR projects and updated screening criteria. Journal of Petroleum Science and Engineering, 2011, 79, 10-24.	2.1	191
7	Preformed-Particle-Gel Transport Through Open Fractures and Its Effect on Water Flow. SPE Journal, 2011, 16, 388-400.	1.7	166
8	A laboratory and simulation study of preformed particle gels for water conformance control. Fuel, 2015, 140, 502-513.	3.4	152
9	Optimizing the strength and size of preformed particle gels for better conformance control treatment. Fuel, 2015, 148, 178-185.	3.4	129
10	Applied Technologies and Prospects of Conformance Control Treatments in China. Oil and Gas Science and Technology, 2010, 65, 859-878.	1.4	116
11	Evaluation of a nanocomposite hydrogel for water shutâ€off in enhanced oil recovery applications: Design, synthesis, and characterization. Journal of Applied Polymer Science, 2013, 128, 787-794.	1.3	98
12	Preformed-Particle-Gel Extrusion Through Open Conduits During Conformance-Control Treatments. SPE Journal, 2015, 20, 1083-1093.	1.7	93
13	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
14	Field and Lab Experience with a Successful Preformed Particle Gel Conformance Control Technology. , 2013, , .		86
15	Case Study on Preformed Particle Gel for In-Depth Fluid Diversion. , 2008, , .		81
16	Degradable nanocomposite preformed particle gel for chemical enhanced oil recovery applications. Journal of Petroleum Science and Engineering, 2014, 124, 35-45.	2.1	72
17	Mechanically robust re-crosslinkable polymeric hydrogels for water management of void space conduits containing reservoirs. Chemical Engineering Journal, 2017, 317, 952-960.	6.6	70
18	Research on matching mechanism between polymer microspheres with different storage modulus and pore throats in the reservoir. Powder Technology, 2017, 313, 191-200.	2.1	65

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19	Comprehensive review of water shutoff methods for horizontal wells. Petroleum Exploration and Development, 2017, 44, 1022-1029.	3.0	61
20	Effect of polymer on disproportionate permeability reduction to gas and water for fractured shales. Fuel, 2015, 143, 28-37.	3.4	59
21	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
22	Terpolymer Gel System Formed by Resorcinolâ€“Hexamethylenetetramine for Water Management in Extremely High-Temperature Reservoirs. Energy & Fuels, 2017, 31, 1519-1528.	2.5	58
23	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
24	Identification of CO2 sequestration opportunities: CO2 miscible flooding guidelines. Fuel, 2019, 241, 459-467.	3.4	50
25	The plugging performance of preformed particle gel to water flow through large opening void space conduits. Journal of Petroleum Science and Engineering, 2017, 156, 51-61.	2.1	48
26	A Recrosslinkable Preformed Particle Gel for Conformance Control in Heterogeneous Reservoirs Containing Linear-Flow Features. SPE Journal, 2019, 24, 1714-1725.	1.7	47
27	Application and Development of Chemical-Based Conformance Control Treatments in China Oil Fields. , 2006, , .		45
28	Development of Thermotransformable Controlled Hydrogel for Enhancing Oil Recovery. Energy & Fuels, 2017, 31, 13600-13609.	2.5	45
29	Micro-particle gel transport performance through unconsolidated sandstone and its blocking to water flow during conformance control treatments. Fuel, 2018, 231, 479-488.	3.4	45
30	Preformed Particle Gel for Conformance Control: Factors Affecting its Properties and Applications. , 2004, , .		43
31	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
32	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
33	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
34	Comprehensive Review of Sealant Materials for Leakage Remediation Technology in Geological CO₂ Capture and Storage Process. Energy & Fuels, 2021, 35, 4711-4742.	2.5	43
35	Preformed-Particle-Gel Transport Through Heterogeneous Void-Space Conduits. SPE Journal, 2017, 22, 1437-1447.	1.7	42
36	Descriptive statistical analysis for the PPG field applications in China: Screening guidelines, design considerations, and performances. Journal of Petroleum Science and Engineering, 2017, 153, 1-11.	2.1	41

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37	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
38	Evaluation of Terpolymer-Gel Systems Crosslinked by Polyethylenimine for Conformance Improvement in High-Temperature Reservoirs. SPE Journal, 2019, 24, 1726-1740.	1.7	41
39	Ultra-high temperature resistant preformed particle gels for enhanced oil recovery. Chemical Engineering Journal, 2021, 426, 130712.	6.6	41
40	Preformed Particle Gel for Conformance Control: Transport Mechanism Through Porous Media. , 2004, , .		40
41	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
42	Influence of strong preformed particle gels on low permeable formations in mature reservoirs. Petroleum Science, 2016, 13, 77-90.	2.4	39
43	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
44	Injecting Large Volumes of Preformed Particle Gel for Water Conformance Control. Oil and Gas Science and Technology, 2012, 67, 941-952.	1.4	37
45	Experimental work to determine the effect of load pressure on the gel pack permeability of strong and weak preformed particle gels. Fuel, 2017, 188, 332-342.	3.4	34
46	Effect of Different Phenolic Compounds on Performance of Organically Cross-Linked Terpolymer Gel Systems at Extremely High Temperatures. Energy & Fuels, 2017, 31, 8120-8130.	2.5	33
47	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
48	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
49	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
50	A comprehensive review of in-situ polymer gel simulation for conformance control. Petroleum Science, 2022, 19, 189-202.	2.4	31
51	New laboratory study and transport model implementation of microgels for conformance and mobility control purposes. Fuel, 2017, 192, 158-168.	3.4	30
52	Modeling Particle Gel Propagation in Porous Media. , 2008, , .		29
53	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
54	Understanding the Plugging Performance of HPAM-Cr (III) Polymer Gel for CO2 Conformance Control. SPE Journal, 2021, 26, 3109-3118.	1.7	28

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55	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
56	Combining preformed particle gel and low salinity waterflooding to improve conformance control in fractured reservoirs. Fuel, 2018, 221, 501-512.	3.4	27
57	Experimental Evaluation of Oxidizing Breakers for a Polyacrylamide-Based Re-Crosslinkable Preformed Particle Gel. Energy & Fuels, 2019, 33, 5001-5010.	2.5	27
58	Descriptive statistical analysis of experimental data for wettability alteration with surfactants in carbonate reservoirs. Fuel, 2022, 310, 122110.	3.4	27
59	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
60	Preparation and salt-insensitive behavior study of swellable, Cr3+-embedded microgels for water management. Journal of Molecular Liquids, 2019, 273, 551-558.	2.3	25
61	Comprehensive evaluation of a high-temperature resistant re-crosslinkable preformed particle gel for water management. Fuel, 2022, 309, 122086.	3.4	23
62	Effect of back pressure on the gel pack permeability in mature reservoir. Fuel, 2016, 183, 449-456.	3.4	20
63	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
64	A comprehensive review of experimental evaluation methods and results of polymer micro/nanogels for enhanced oil recovery and reduced water production. Fuel, 2022, 324, 124664.	3.4	20
65	Preformed Particle Gel-Enhanced Surfactant Imbibition for Improving Oil Recovery in Fractured Carbonate Reservoirs. , 2014, , .		19
66	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
67	Laboratory evaluation of a novel Self-healable polymer gel for CO2 leakage remediation during CO2 storage and CO2 flooding. Chemical Engineering Journal, 2022, 444, 136635.	6.6	19
68	Preformed Particle Gel Propagation Through Super-K Permeability Sand and Its Resistance to Water Flow During Conformance Control. , 2015, , .		18
69	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
70	Investigation and Characterization of a Robust Nanocomposite Preformed Particle Gel for Enhanced Oil Recovery. Energy & Fuels, 2019, 33, 5055-5066.	2.5	17
71	Water Plugging Performance of Preformed Particle Gel in Partially Filled Fractures. Industrial & Engineering Chemistry Research, 2019, 58, 6778-6784.	1.8	16
72	Preformed Particle Gel Extrusion through Open Conduits during Conformance Control Treatments. , 2014, , .		15

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73	Survey and Data Analysis of the Pilot and Field Polymer Flooding Projects in China. , 2016, , .		15
74	Rheology Properties and Plugging Performance of Fluorescent Polyacrylamide Microspheres in Fractures. Journal of Dispersion Science and Technology, 2016, 37, 345-351.	1.3	15
75	Dehydration of polyacrylamide-based super-absorbent polymer swollen in different concentrations of brine under CO2 conditions. Fuel, 2017, 210, 32-40.	3.4	15
76	Using Screen Models to Evaluate the Injection Characteristics of Particle Gels for Water Control. Energy & Fuels, 2018, 32, 352-359.	2.5	15
77	Characterization and oil recovery enhancement by a polymeric nanogel combined with surfactant for sandstone reservoirs. Petroleum Science, 2021, 18, 123-135.	2.4	15
78	Impacts of crosslinker concentration on nanogel properties and enhanced oil recovery capability. Fuel, 2020, 267, 117098.	3.4	15
79	Experimental Study of Transport Behavior of Swellable Microgel Particles in Superpermeable Channels for Conformance Control. SPE Journal, 2022, 27, 790-805.	1.7	15
80	Evaluation of combined low-salinity water and microgel treatments to improve oil recovery using partial fractured carbonate models. Journal of Petroleum Science and Engineering, 2017, 158, 80-91.	2.1	14
81	Highly Deformable Nano-Cross-Linker-Bridged Nanocomposite Hydrogels for Water Management of Oil Recovery. Energy & Fuels, 2018, 32, 3068-3076.	2.5	14
82	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
83	Evaluation of Preformed Particle Gels Penetration into Matrix for a Conformance Control Treatment in Partially Open Conduits. , 2016, , .		13
84	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
85	A Novel Re-Crosslinkable Preformed Particle Gel for Conformance Control in Extreme Heterogeneous Reservoirs. , 2018, , .		12
86	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
87	Minimizing Formation Damage for Preformed Particle Gels in Mature Reservoirs. , 2015, , .		10
88	3D Simulation of Low Salinity, Polymer, Conventional, Water-flooding & Combination IOR Methods â€“ Heterogeneous & Varying Wetting Conditions. , 2015, , .		10
89	Data analysis and application guidelines for the microgel field applications. Fuel, 2017, 210, 557-568.	3.4	10
90	Investigation of Slickwater Effect on Permeability of Gas Shale from Longmaxi Formation. Energy & Fuels, 2021, 35, 3104-3111.	2.5	10

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91	Selective penetration behavior of microgels in superpermeable channels and reservoir matrices. Journal of Petroleum Science and Engineering, 2022, 210, 109897.	2.1	10
92	Evaluation of a Novel Recrosslinkable Hyperbranched Preformed Particle Gel for the Conformance Control of High-Temperature Reservoirs with Fractures. SPE Journal, 2022, 27, 3598-3610.	1.7	9
93	Chitosan/Polyacrylamide Green Gels for Water Control in High-Temperature Reservoirs. Energy & Fuels, 2022, 36, 3816-3824.	2.5	8
94	Comprehensive Review of Polymer and Polymer Gel Treatments for Natural Gas-Related Conformance Control. Gels, 2022, 8, 353.	2.1	8
95	Investigation on transport behavior of nanogel in low permeable porous medium. Journal of Petroleum Science and Engineering, 2019, 178, 999-1005.	2.1	7
96	A Novel Branched Polymer Gel System with Delayed Gelation Property for Conformance Control. SPE Journal, 2022, 27, 105-115.	1.7	7
97	Impact of Polymer Rheology on Gel Treatment Performance of Horizontal Wells with Severe Channeling. SPE Journal, 2022, , 1-15.	1.7	7
98	The Flow Behavior of Friction Reducer in Microchannels during Slickwater Fracturing. , 2013, , .		5
99	Waterâ€free synthesis of temperatureâ€sensitive polyacrylamide microgels and pore modeled oil recovery performance. Journal of Applied Polymer Science, 2017, 134, .	1.3	5
100	Evaluation of Ultrahigh-Temperature-Resistant Preformed Particle Gels for Conformance Control in North Sea Reservoirs. SPE Journal, 2022, 27, 3660-3673.	1.7	5
101	Propagation of Swellable Microgels through Superpermeable Channels: Impact of Particleâ€“Pore Matching Size Relationship. Energy & Fuels, 2021, 35, 18533-18542.	2.5	4
102	Laboratory Evaluation of Placement Behavior of Microgels for Conformance Control in Reservoirs Containing Superpermeable Channels. Energy & Fuels, 2022, 36, 1374-1387.	2.5	3
103	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
104	Mitigating permeability contrasts in heterogenous reservoirs using advanced preformed particle gels. International Journal of Oil, Gas and Coal Technology, 2016, 13, 103.	0.1	2
105	Evaluation of Gel Treatment in Fractured Reservoir Using Embedded Discrete Fracture Model: Experimental and Simulation Investigation. , 2018, , .		2
106	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
107	Integrating Microgel-Low Salinity Waterflooding to Improve Production Profile in Non-Crossflow Heterogeneous Reservoir. , 2018, , .		1
108	Understanding the Plugging Performance of HPAM-Cr(III) Polymer Gel For CO2 Conformance Control. , 2019, , .		1

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109	Combining Particles with Surfactants toÂImprove Microscopic Displacement andÂSweep Efficiency. Petroleum Engineering, 2021, , 247-288.	0.6	1
110	Pattern Recognition for Steam Flooding Field Applications Based on Hierarchical Clustering and Principal Component Analysis. ACS Omega, 0, , .	1.6	1
111	A Novel Numerical Model of Gelant Inaccessible Pore Volume for In Situ Gel Treatment. Gels, 2022, 8, 375.	2.1	1
112	Development and Evaluation of Ultra-High Temperature Resistant Preformed Particle Gels for Conformance Control in North Sea Reservoirs. , 2021, , .		0
113	Comprehensive Evaluation of a Novel Recrosslinkable Hyper Branched Preformed Particle Gels for the Conformance Control of High Temperature Reservoirs. , 2022, , .		0