

Matthew B Myers

List of Publications by Year in descending order

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88
papers

3,063
citations

186265

28
h-index

161849

54
g-index

91
all docs

91
docs citations

91
times ranked

4069
citing authors

#	ARTICLE	IF	CITATIONS
1	First Example of N-Heterocyclic Carbenes as Catalysts for Living Polymerization: Organocatalytic Ring-Opening Polymerization of Cyclic Esters. <i>Journal of the American Chemical Society</i> , 2002, 124, 914-915.	13.7	443
2	Magnetite Fe ₃ O ₄ Nanocrystals: A Spectroscopic Observation of Aqueous Oxidation Kinetics. <i>Journal of Physical Chemistry B</i> , 2003, 107, 7501-7506.	2.6	344
3	Molecular Wires from Contorted Aromatic Compounds. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7390-7394.	13.8	293
4	Phosphines: Nucleophilic organic catalysts for the controlled ring-opening polymerization of lactides. <i>Journal of Polymer Science Part A</i> , 2002, 40, 844-851.	2.3	141
5	Chemoresponsive monolayer transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 11452-11456.	7.1	141
6	Recent progress in sensing nitrate, nitrite, phosphate, and ammonium in aquatic environment. <i>Chemosphere</i> , 2020, 259, 127492.	8.2	98
7	Photoresponsive nanoscale columnar transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 691-696.	7.1	94
8	Forming Aromatic Hemispheres on Transition-Metal Surfaces. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 7891-7895.	13.8	76
9	Mercury(II) selective sensors based on AlGa _N /Ga _N transistors. <i>Analytica Chimica Acta</i> , 2016, 943, 1-7.	5.4	71
10	Formation of Catalytic Metal-Molecule Contacts. <i>Science</i> , 2005, 309, 591-594.	12.6	69
11	Tracers – Past, present and future applications in CO ₂ geosequestration. <i>Applied Geochemistry</i> , 2013, 30, 125-135.	3.0	62
12	An experimental study for carbonate reservoirs on the impact of CO ₂ -EOR on petrophysics and oil recovery. <i>Fuel</i> , 2019, 235, 1019-1038.	6.4	50
13	Mid-Infrared Sensing of Organic Pollutants in Aqueous Environments. <i>Sensors</i> , 2009, 9, 6232-6253.	3.8	49
14	Application of nuclear magnetic resonance technology to carbon capture, utilization and storage: A review. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2019, 11, 892-908.	8.1	46
15	Functionalized graphene as an aqueous phase chemiresistor sensing material. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 154-158.	7.8	45
16	Nitrate ion detection using AlGa _N /Ga _N heterostructure-based devices without a reference electrode. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 301-305.	7.8	37
17	Fingerprinting Oils in Water via Their Dissolved VOC Pattern Using Mid-Infrared Sensors. <i>Analytical Chemistry</i> , 2014, 86, 9512-9517.	6.5	36
18	Ca ²⁺ detection utilising AlGa _N /Ga _N transistors with ion-selective polymer membranes. <i>Analytica Chimica Acta</i> , 2017, 987, 105-110.	5.4	36

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19	Experimental Evaluations of Polymeric Solubility and Thickeners for Supercritical CO ₂ at High Temperatures for Enhanced Oil Recovery. <i>Energy & Fuels</i> , 2018, 32, 1600-1611.	5.1	36
20	Synchrotron-based XPS studies of AlGa _N and GaN surface chemistry and its relationship to ion sensor behaviour. <i>Applied Surface Science</i> , 2014, 314, 850-857.	6.1	35
21	Modifying the response of a polymer-based quartz crystal microbalance hydrocarbon sensor with functionalized carbon nanotubes. <i>Talanta</i> , 2011, 85, 1648-1657.	5.5	34
22	Direct quantification of aromatic hydrocarbons in geochemical fluids with a mid-infrared attenuated total reflection sensor. <i>Organic Geochemistry</i> , 2013, 55, 63-71.	1.8	33
23	Migration and storage characteristics of supercritical CO ₂ in anisotropic sandstones with clay interlayers based on X-CT experiments. <i>Journal of Hydrology</i> , 2020, 580, 124239.	5.4	33
24	Insight investigation of miscible SCCO ₂ Water Alternating Gas (WAG) injection performance in heterogeneous sandstone reservoirs. <i>Journal of CO₂ Utilization</i> , 2018, 28, 255-263.	6.8	32
25	Mid-Infrared Spectroscopic Method for the Identification and Quantification of Dissolved Oil Components in Marine Environments. <i>Analytical Chemistry</i> , 2015, 87, 12306-12312.	6.5	30
26	Performance of graphene, carbon nanotube, and gold nanoparticle chemiresistor sensors for the detection of petroleum hydrocarbons in water. <i>Journal of Nanoparticle Research</i> , 2014, 16, 1.	1.9	29
27	Insights into immiscible supercritical CO ₂ EOR: An XCT scanner assisted flow behaviour in layered sandstone porous media. <i>Journal of CO₂ Utilization</i> , 2019, 32, 187-195.	6.8	29
28	Using Plasticizers to Control the Hydrocarbon Selectivity of a Poly(Methyl Methacrylate)-Coated Quartz Crystal Microbalance Sensor. <i>Analytical Chemistry</i> , 2012, 84, 8564-8570.	6.5	27
29	Next generation amino acid technology for CO ₂ capture. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1692-1704.	10.3	27
30	Portable Mid-Infrared Sensor System for Monitoring CO ₂ and CH ₄ at High Pressure in Geosequestration Scenarios. <i>ACS Sensors</i> , 2016, 1, 413-419.	7.8	24
31	Direct air capture (DAC) of CO ₂ using polyethylenimine (PEI) – a scalable strategy. <i>Chemical Communications</i> , 2020, 56, 7151-7154.	4.1	23
32	Influence of Permeability Heterogeneity on Miscible CO ₂ Flooding Efficiency in Sandstone Reservoirs: An Experimental Investigation. <i>Transport in Porous Media</i> , 2018, 125, 341-356.	2.6	21
33	Flow behavior characteristics and residual trapping of supercritical carbon dioxide in tight glutenite by MRI experiments. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 83, 103540.	4.4	21
34	A controlled CO ₂ release experiment in a fault zone at the In-Situ Laboratory in Western Australia. <i>International Journal of Greenhouse Gas Control</i> , 2020, 99, 103100.	4.6	19
35	Poly(2-Hydroxyethyl Methacrylate) Sponges Doped with Ag Nanoparticles as Antibacterial Agents. <i>ACS Applied Nano Materials</i> , 2020, 3, 1630-1639.	5.0	19
36	Pore size dynamics in interpenetrated metal organic frameworks for selective sensing of aromatic compounds. <i>Analytica Chimica Acta</i> , 2014, 819, 78-81.	5.4	18

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37	A mid-infrared sensor for the determination of perfluorocarbon-based compounds in aquatic systems for geosequestration purposes. <i>Talanta</i> , 2014, 130, 527-535.	5.5	18
38	Method for the determination of residual carbon dioxide saturation using reactive ester tracers. <i>Applied Geochemistry</i> , 2012, 27, 2148-2156.	3.0	17
39	Description of ionophore-doped membranes with a blocked interface. <i>Sensors and Actuators B: Chemical</i> , 2017, 250, 499-508.	7.8	16
40	Role of GaN cap layer for reference electrode free AlGaIn/GaN-based pH sensors. <i>Sensors and Actuators B: Chemical</i> , 2019, 287, 250-257.	7.8	16
41	The impact of water and hydrocarbon concentration on the sensitivity of a polymer-based quartz crystal microbalance sensor for organic compounds. <i>Analytica Chimica Acta</i> , 2011, 703, 70-79.	5.4	14
42	The Effect of Pressure and Temperature on Mid-Infrared Sensing of Dissolved Hydrocarbons in Water. <i>Analytical Chemistry</i> , 2017, 89, 13391-13397.	6.5	14
43	Effects of oligomers dissolved in CO ₂ or associated gas on IFT and miscibility pressure with a gas-light crude oil system. <i>Journal of Petroleum Science and Engineering</i> , 2019, 181, 106210.	4.2	13
44	Field measurement of residual carbon dioxide saturation using reactive ester tracers. <i>Chemical Geology</i> , 2015, 399, 20-29.	3.3	12
45	Development of a plasticizer-poly(methyl methacrylate) membrane for sensing petroleum hydrocarbons in water. <i>Sensors and Actuators B: Chemical</i> , 2014, 193, 70-77.	7.8	11
46	Polyethylenimine “Snow” An Emerging Material for Efficient Carbon Removal. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26770-26780.	8.0	11
47	An Experimental Investigation of Immiscible-CO ₂ -Flooding Efficiency in Sandstone Reservoirs: Influence of Permeability Heterogeneity. <i>SPE Reservoir Evaluation and Engineering</i> , 2019, 22, 990-997.	1.8	11
48	Mid-infrared sensor for hydrocarbon monitoring: the influence of salinity, matrix and aging on hydrocarbon-polymer partitioning. <i>Analytical Methods</i> , 2018, 10, 1516-1522.	2.7	9
49	An experimental investigation into quantifying CO ₂ leakage in aqueous environments using chemical tracers. <i>Chemical Geology</i> , 2019, 511, 91-99.	3.3	9
50	Modifying the Wettability of Sandstones Using Nonfluorinated Silylation: To Minimize the Water Blockage Effect. <i>Energy & Fuels</i> , 2020, 34, 709-719.	5.1	9
51	Chemical-assisted minimum miscibility pressure reduction between oil and methane. <i>Journal of Petroleum Science and Engineering</i> , 2021, 196, 108094.	4.2	9
52	Rock/Fluid/Polymer Interaction Mechanisms: Implications for Water Shut-off Treatment. <i>Energy & Fuels</i> , 2021, 35, 12809-12827.	5.1	9
53	Calixarene-polymer hybrid film for selective detection of hydrocarbons in water. <i>New Journal of Chemistry</i> , 2017, 41, 6195-6202.	2.8	8
54	Complex Brillouin Optical Time-Domain Analysis. <i>Journal of Lightwave Technology</i> , 2018, 36, 1840-1850.	4.6	8

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55	Mechanistic Aspects of Polymeric Relative Permeability Modifier Adsorption onto Carbonate Rocks. <i>Energy & Fuels</i> , 2020, 34, 12065-12077.	5.1	8
56	Effects of CO ₂ -Saturated Brine on the Injectivity and Integrity of Chalk Reservoirs. <i>Transport in Porous Media</i> , 2020, 135, 735-751.	2.6	8
57	New Approach to Alternating Thickened/Unthickened Gas Flooding for Enhanced Oil Recovery. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 14637-14647.	3.7	7
58	CSIRO In-Situ Lab: A multi-pronged approach to surface gas and groundwater monitoring at geological CO ₂ storage sites. <i>Chemical Geology</i> , 2020, 545, 119642.	3.3	7
59	Changing Sandstone Rock Wettability with Supercritical CO ₂ -Based Silylation. <i>Energy & Fuels</i> , 2020, 34, 2015-2027.	5.1	7
60	Experimental and numerical investigation of supercritical CO ₂ migration in sandstone with multiple clay interlayers. <i>International Journal of Greenhouse Gas Control</i> , 2021, 104, 103194.	4.6	7
61	Amine-Infused Hydrogels with Nonaqueous Solvents: Facile Platforms to Control CO ₂ Capture Performance. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 14758-14767.	3.7	7
62	Effects of bedding direction on brine imbibition in Lower Shaximiao tight sandstone: An NMR analysis. <i>Journal of Petroleum Science and Engineering</i> , 2022, 210, 110006.	4.2	7
63	XPS/NEXAFS spectroscopic and conductance studies of glycine on AlGaIn/GaN transistor devices. <i>Applied Surface Science</i> , 2018, 435, 23-30.	6.1	6
64	Further Insights into the Performance of Silylated Polyacrylamide-Based Relative Permeability Modifiers in Carbonate Reservoirs and Influencing Factors. <i>ACS Omega</i> , 2021, 6, 13671-13683.	3.5	6
65	Wettability alteration using benzoxazine resin: A remedy for water blockage in sandstone gas reservoirs. <i>Fuel</i> , 2021, 291, 120189.	6.4	6
66	Carbonated waterflooding in carbonate reservoirs: Experimental evaluation and geochemical interpretation. <i>Journal of Molecular Liquids</i> , 2020, 308, 113055.	4.9	5
67	The effects of porosity and permeability changes on simulated supercritical CO ₂ migration front in tight glutenite under different effective confining pressures from 1.5 MPa to 21.5 MPa. , 2021, 11, 19-36.		5
68	The impact of partition coefficient data on the interpretation of chemical tracer behaviour in carbon geosequestration projects. <i>Chemical Geology</i> , 2017, 465, 52-63.	3.3	4
69	Block Copolymer-Coated ATR-FTIR Spectroscopic Sensors for Monitoring Hydrocarbons in Aquatic Environments at High Temperature and Pressure. <i>ACS Applied Polymer Materials</i> , 2019, 1, 2149-2156.	4.4	4
70	Charging mechanism of AlGaIn/GaN open-gate pH sensor and electrolyte interface. , 2014, , .		3
71	Effect of Functional Groups on Chemical-Assisted MMP Reduction of a Methane-Oil System. <i>Energy & Fuels</i> , 2021, 35, 14519-14526.	5.1	3
72	Dynamic Pressure/Temperature Behaviour of GaN-Based Chemical Sensors. <i>IEEE Sensors Journal</i> , 2021, 21, 18877-18886.	4.7	3

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73	Migration of carbon dioxide in sandstone under various pressure/temperature conditions: From experiment to simulation. , 2022, 12, 233-248.		3
74	Improvements to ATR-FTIR based chemical sensors for the detection of organic contaminants dissolved in water. , 2009, , .		2
75	Poly(2-hydroxyethyl methacrylate) Hydrogels Doped with Gold Nanoparticles for Surface-Enhanced Raman Spectroscopy. ACS Applied Nano Materials, 2021, 4, 5577-5589.	5.0	2
76	Baseline characterisation and monitoring protocols for development of shale and tight gas resources, northern Perth Basin. APPEA Journal, 2017, 57, 64.	0.2	2
77	Impacts of Limestone Vertical Permeability Heterogeneity on Fluid-Rock Interaction During CCS. Transport in Porous Media, 0, , 1.	2.6	2
78	Poly(2-hydroxyethyl methacrylate) hydrogels doped with copper nanoparticles. Journal of Nanoparticle Research, 2021, 23, 1.	1.9	1
79	Surface Monitoring Strategies at CO2 Storage Sites. Environmental Science and Engineering, 2019, , 138-143.	0.2	1
80	X-Ray Computed Tomography Assisted Investigation of Flow Behaviour of Miscible CO2 to Enhance Oil Recovery in Layered Sandstone Porous Media. , 2022, , .		1
81	Optimisation studies for AlGaN/GaN-based nitrate sensors. , 2012, , .		0
82	An investigation into signal stability during measurement of AlGaN/GaN transistor-based chemical sensors. , 2014, , .		0
83	Chemical Tracers for the Offshore Determination of Residual Oil Saturation. , 2014, , .		0
84	Temperature sensitivity of reactive ester tracers for measuring CO2 residual trapping capacity. Chemical Geology, 2015, 399, 30-35.	3.3	0
85	Calixarene-Poly(methyl methacrylate) composites for ATR-IR sensing of water dissolved aromatic compounds. , 2016, , .		0
86	Complex domain Brillouin frequency estimation for distributed fiber sensing. , 2017, , .		0
87	Using IR-based sensors to monitor fugitive greenhouse gas emissions in the Australian context. , 2019, , .		0
88	Chem/Bio Sensors for Marine Applications. , 2022, , .		0