Geoff Maitland

List of Publications by Citations

94 papers	5,542 citations	38 h-index	73 g-index
97 ext. papers	6,598 ext. citations	5.1 avg, IF	5.74 L-index

#	Paper	IF	Citations
94	Carbon capture and storage (CCS): the way forward. *Energy and Environmental Science*, **2018**, 11, 1062-1176	35.4	1368
93	The role of CO2 capture and utilization in mitigating climate change. *Nature Climate Change*, **2017**, 7, 243-249	21.4	436
92	Interfacial Tension Measurements of the (H2O + CO2) System at Elevated Pressures and Temperatures. *Journal of Chemical & Engineering Data*, **2010**, 55, 4168-4175	2.8	165
91	Oil and gas production. *Current Opinion in Colloid and Interface Science*, **2000**, 5, 301-311	7.6	163
90	Rheology, Cryogenic Transmission Electron Spectroscopy, and Small-Angle Neutron Scattering of Highly Viscoelastic Wormlike Micellar Solutions. *Langmuir*, **2003**, 19, 8536-8541	4	162
89	Critical reassessment of viscosities of 11 common gases. *Journal of Chemical & Engineering Data*, **1972**, 17, 150-156	2.8	141
88	Hydration of tricalcium aluminate (C3A) in the presence and absence of gypsum studied by Raman spectroscopy and X-ray diffraction. *Journal of Materials Chemistry*, **2006**, 16, 1263		121
87	Measurement and modeling of the phase behavior of the (carbon dioxide + water) mixture at temperatures from 298.15 K to 448.15 K. *Journal of Supercritical Fluids*, **2013**, 73, 87-96	4.2	118
86	Interfacial Tension of (Brines + CO2): (0.864 NaCl + 0.136 KCl) at Temperatures between (298 and 448) K, Pressures between (2 and 50) MPa, and Total Molalities of (1 to 5) mol·kg−1. *Journal of Chemical & Engineering Data*, **2012**, 57, 1078-1088	2.8	118
85	Diffusion Coefficients of CO2 and N2 in Water at Temperatures between 298.15 K and 423.15 K at Pressures up to 45 MPa. *Journal of Chemical & Engineering Data*, **2014**, 59, 519-525	2.8	113
84	Interfacial tension measurements and modelling of (carbon dioxide+n-alkane) and (carbon dioxide+water) binary mixtures at elevated pressures and temperatures. *Journal of Supercritical Fluids*, **2010**, 55, 743-754	4.2	102
83	The pH of CO2-saturated water at temperatures between 308 K and 423 K at pressures up to 15 MPa. *Journal of Supercritical Fluids*, **2013**, 82, 129-137	4.2	92
82	Prediction of the Salting-Out Effect of Strong Electrolytes on Water + Alkane Solutions. *Industrial & Engineering Chemistry Research*, **2003**, 42, 3809-3823	3.9	92
81	Giant micellar worms under shear: a rheological study using SANS. *Langmuir*, **2005**, 21, 6762-8	4	87
80	Solubility of carbon dioxide in aqueous solution of monoethanolamine or 2-amino-2-methyl-1-propanol: Experimental measurements and modelling. *International Journal of Greenhouse Gas Control*, **2012**, 6, 37-47	4.2	78
79	Rheology modification in mixed shape colloidal dispersions. Part I: pure components. *Soft Matter*, **2007**, 3, 1145-1162	3.6	65
78	Interfacial Tension of (Brines + CO2): CaCl2(aq), MgCl2(aq), and Na2SO4(aq) at Temperatures between (343 and 423) K, Pressures between (2 and 50) MPa, and Molalities of (0.5 to 5) mol·kg−1. *Journal of Chemical & Engineering Data*, **2012**, 57, 1369-1375	2.8	64

77	Kinetics of calcite dissolution in CO2-saturated water at temperatures between (323 and 373) K and pressures up to 13.8 MPa. *Chemical Geology*, **2015**, 403, 74-85	4.2	62
76	Interfacial Tension Measurements of the (H2O +n-Decane + CO2) Ternary System at Elevated Pressures and Temperatures. *Journal of Chemical & Engineering Data*, **2011**, 56, 4900-4908	2.8	62
75	Densities of Aqueous MgCl2(aq), CaCl2(aq), KI(aq), NaCl(aq), KCl(aq), AlCl3(aq), and (0.964 NaCl + 0.136 KCl)(aq) at Temperatures Between (283 and 472) K, Pressures up to 68.5 MPa, and Molalities up to 6 mol⁻¹kg⁻¹. *Journal of Chemical & Engineering Data*, **2012**, 57, 1288-1304	2.8	61
74	Synergistic Effects in Aqueous Solutions of Mixed Wormlike Micelles and Hydrophobically Modified Polymers. *Macromolecules*, **2005**, 38, 5271-5282	5.5	61
73	Growth and scission energy of wormlike micelles formed by a cationic surfactant with long unsaturated tails. *Langmuir*, **2004**, 20, 9541-50	4	61
72	Thermal conductivity of toluene in the temperature range 35–90°C at pressures up to 600 MPa. *International Journal of Thermophysics*, **1983**, 4, 311-327	2.1	58
71	Molecular dynamics simulations of CO2 and brine interfacial tension at high temperatures and pressures. *Journal of Physical Chemistry B*, **2013**, 117, 5647-52	3.4	57
70	Smectite clay--inorganic nanoparticle mixed suspensions: phase behaviour and rheology. *Soft Matter*, **2015**, 11, 222-36	3.6	53
69	Generalized equation of state for square-well potentials of variable range. *Molecular Physics*, **2005**, 103, 129-139	1.7	53
68	Design of a novel flat-plate photobioreactor system for green algal hydrogen production. *International Journal of Hydrogen Energy*, **2011**, 36, 6578-6591	6.7	52
67	Ageing of oilfield cement at high humidity: a combined FEG-ESEM and Raman microscopic investigation. *Journal of Materials Chemistry*, **2002**, 12, 3105-3112		50
66	An essentially exact evaluation of transport cross-sections for a model of the helium-nitrogen interaction. *Molecular Physics*, **1987**, 61, 359-387	1.7	50
65	Experimental and modeling study of the phase behavior of synthetic crude oil + CO2. *Fluid Phase Equilibria*, **2014**, 365, 20-40	2.5	49
64	Viscosity and Density of Aqueous Solutions of Carbon Dioxide at Temperatures from (274 to 449) K and at Pressures up to 100 MPa. *Journal of Chemical & Engineering Data*, **2015**, 60, 171-180	2.8	47
63	Impacting the length of wormlike micelles using mixed surfactant systems. *Langmuir*, **2004**, 20, 7984-90	4	46
62	Viscosities of binary gas mixtures at high temperatures. *Journal of the Chemical Society Faraday Transactions I*, **1974**, 70, 1191		46
61	Experimental and modeling study of the phase behavior of (methane + CO2 + water) mixtures. *Journal of Physical Chemistry B*, **2014**, 118, 14461-78	3.4	41
60	Modelling of light and temperature influences on cyanobacterial growth and biohydrogen production. *Algal Research*, **2015**, 9, 263-274	5	40

59	Viscosity and Density of Carbon Dioxide + 2,6,10,15,19,23-Hexamethyltetracosane (Squalane)□ *Journal of Chemical & Engineering Data*, **2009**, 54, 2436-2443	2.8	40
58	The forces between simple molecules. *Chemical Society Reviews*, **1973**, 2, 181	58.5	39
57	New Experimental Data and Reference Models for the Viscosity and Density of Squalane. *Journal of Chemical & Engineering Data*, **2015**, 60, 137-150	2.8	38
56	Parameters affecting the growth and hydrogen production of the green alga Chlamydomonas reinhardtii. *International Journal of Hydrogen Energy*, **2011**, 36, 7872-7876	6.7	38
55	Relationship between wetting and capillary pressure in a crude oil/brine/rock system: From nano-scale to core-scale. *Journal of Colloid and Interface Science*, **2020**, 562, 159-169	9.3	38
54	Interfacial tensions of systems comprising water, carbon dioxide and diluent gases at high pressures: Experimental measurements and modelling with SAFT-VR Mie and square-gradient theory. *Fluid Phase Equilibria*, **2016**, 407, 159-176	2.5	37
53	Solubility of carbon dioxide in aqueous blends of 2-amino-2-methyl-1-propanol and piperazine. *Chemical Engineering Science*, **2013**, 101, 851-864	4.4	36
52	The Thermal Conductivity of n-Hexane and n-Octane at Pressures up to 0.64 GPa in the Temperature Range 34□0°C. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1984**, 88, 32-36		36
51	High temperature viscosities and intermolecular forces of quasi-spherical molecules. *Transactions of the Faraday Society*, **1970**, 66, 1955		36
50	Effects of light and temperature on the photoautotrophic growth and photoinhibition of nitrogen-fixing cyanobacterium Cyanothece sp. ATCC 51142. *Algal Research*, **2014**, 5, 103-111	5	33
49	Phase equilibria of (CO2 + H2O + NaCl) and (CO2 + H2O + KCl): Measurements and modeling. *Journal of Supercritical Fluids*, **2013**, 78, 78-88	4.2	33
48	The Thermal Conductivity of Argon, Nitrogen and Carbon Monoxide in the Temperature Range 300 □430 K at Pressures up to 10 MPa. *Zeitschrift Fur Elektrotechnik Und Elektrochemie*, **1983**, 87, 657-663		33
47	Rheology modification in mixed shape colloidal dispersions. Part II: mixtures. *Soft Matter*, **2008**, 4, 337-348	3.6	32
46	Interfacial tensions of the (CO 2 + N 2 + H 2 O) system at temperatures of (298 to 448) K and pressures up to 40 MPa. *Journal of Chemical Thermodynamics*, **2016**, 93, 392-403	2.9	31
45	Pressurized calcium looping in the presence of steam in a spout-fluidized-bed reactor with DFT analysis. *Fuel Processing Technology*, **2018**, 169, 24-41	7.2	28
44	Fourier Transform Infrared Spectroscopic Techniques to Investigate Surface Hydration Processes on Bentonite. *Journal of Colloid and Interface Science*, **1995**, 176, 308-317	9.3	28
43	Second-order approximations for the transport properties of dilute polyatomic gases. *Journal of the Chemical Society, Faraday Transactions 2*, **1983**, 79, 1425		28
42	Process and reactor design for biophotolytic hydrogen production. *Physical Chemistry Chemical Physics*, **2013**, 15, 10783-94	3.6	27

41	Dynamic modelling of high biomass density cultivation and biohydrogen production in different scales of flat plate photobioreactors. *Biotechnology and Bioengineering*, **2015**, 112, 2429-38	4.9	26
40	Molecular design of responsive fluids: molecular dynamics studies of viscoelastic surfactant solutions. *Journal of Physics Condensed Matter*, **2002**, 14, 9413-9430	1.8	25
39	A novel nutrient control method to deprive green algae of sulphur and initiate spontaneous hydrogen production. *International Journal of Hydrogen Energy*, **2012**, 37, 8988-9001	6.7	24
38	Transient hot-wire measurements of the thermal conductivity of gases at elevated temperatures. *International Journal of Thermophysics*, **1986**, 7, 245-258	2.1	24
37	Thermal conductivity of benzene and cyclohexane in the temperature range 36–90°C at pressures up to 0.33 GPa. *International Journal of Thermophysics*, **1984**, 5, 351-365	2.1	23
36	Optimal Operation Strategy for Biohydrogen Production. *Industrial & Engineering Chemistry Research*, **2015**, 54, 6334-6343	3.9	22
35	Analysis of the cyanobacterial hydrogen photoproduction process via model identification and process simulation. *Chemical Engineering Science*, **2015**, 128, 130-146	4.4	21
34	An in situ synchrotron energy-dispersive diffraction study of the hydration of oilwell cement systems under high temperature/autoclave conditions up to 130 °C. *Cement and Concrete Research*, **2005**, 35, 2223-2232	10.3	20
33	A comparison between calculated and experimental transport coefficients of binary gaseous mixtures N2-He, Ne and Ar. *Molecular Physics*, **1987**, 62, 875-896	1.7	20
32	Experimental and Modeling Study of the Phase Behavior of (Heptane + Carbon Dioxide + Water) Mixtures. *Journal of Chemical & Engineering Data*, **2015**, 60, 3670-3681	2.8	19
31	Depth Filtration of Clay in Rock Cores Observed by One-Dimensional 1H NMR Imaging. *Journal of Colloid and Interface Science*, **1993**, 156, 253-255	9.3	19
30	Diffusion Coefficients of Carbon Dioxide in Brines Measured Using 13C Pulsed-Field Gradient Nuclear Magnetic Resonance. *Journal of Chemical & Engineering Data*, **2015**, 60, 181-184	2.8	17
29	Mutual Diffusion Coefficients of Aqueous KCl at High Pressures Measured by the Taylor Dispersion Method. *Journal of Chemical & Engineering Data*, **2011**, 56, 4840-4848	2.8	17
28	Diffusion Coefficients of Carbon Dioxide in Eight Hydrocarbon Liquids at Temperatures between (298.15 and 423.15) K at Pressures up to 69 MPa. *Journal of Chemical & Engineering Data*, **2016**, 61, 3922-3932	2.8	15
27	Kinetics of carbonate mineral dissolution in CO-acidified brines at storage reservoir conditions. *Faraday Discussions*, **2016**, 192, 545-560	3.6	15
26	Interfacial tensions of (H2O´+ H2) and (H2O´+ CO2´+ H2) systems at temperatures of (298–448) K and pressures up to 45 MPa. *Fluid Phase Equilibria*, **2018**, 475, 37-44	2.5	15
25	The pH of CO2-saturated aqueous NaCl and NaHCO3 solutions at temperatures between 308 K and 373 K at pressures up to 15 MPa. *Fluid Phase Equilibria*, **2018**, 458, 253-263	2.5	15
24	Densities of SrCl2(aq), Na2SO4(aq), NaHCO3(aq), and Two Synthetic Reservoir Brines at Temperatures between (298 and 473) K, Pressures up to 68.5 MPa, and Molalities up to 3 mol·kg−1. *Journal of Chemical & Engineering Data*, **2013**, 58, 402-412	2.8	14

23	Thermal conductivity of polyatomic gases at low density. *Journal of the Chemical Society Faraday Transactions I*, **1983**, 79, 163		14
22	Rheology modification of montmorillonite dispersions by colloidal silica. *Rheologica Acta*, **2014**, 53, 373-384	2.4	13
21	Mixed spherical and wormlike micelles: a contrast-matching study by small-angle neutron scattering. *Langmuir*, **2004**, 20, 9978-82	4	13
20	Demonstration of a two-stage aerobic/anaerobic chemostat for the enhanced production of hydrogen and biomass from unicellular nitrogen-fixing cyanobacterium. *Algal Research*, **2015**, 10, 189-201	5	11
19	Effect of the Light Regime and Phototrophic Conditions on Growth of the H2-producing Green Alga Chlamydomonas Reinhardtii. *Energy Procedia*, **2012**, 29, 710-719	2.3	11
18	Supercritical adsorption in micro- and meso-porous carbons and its utilisation for textural characterisation. *Microporous and Mesoporous Materials*, **2020**, 308, 110537	5.3	10
17	Phase Behavior of the System (Carbon Dioxide + n-Heptane + Methylbenzene): A Comparison between Experimental Data and SAFT-□Mie Predictions. *Journal of Chemical & Engineering Data*, **2017**, 62, 2826-2836	2.8	9
16	Flow properties of freshly prepared ettringite suspensions in water at 25 degrees C. *Journal of Colloid and Interface Science*, **2006**, 294, 466-72	9.3	9
15	Circulating pump for high-pressure and high-temperature applications. *Review of Scientific Instruments*, **2005**, 76, 105103	1.7	9
14	La viscosit□de CO2 entre 293 °K ET 1 500 °K. *Journal De Chimie Physique Et De Physico-Chimie Biologique*, **1970**, 67, 631-632		9
13	The Road Ahead to Real-Time Oil and Gas Reservoir Management. *Chemical Engineering Research and Design*, **1998**, 76, 539-552	5.5	8
12	Carbon Capture and Storage: concluding remarks. *Faraday Discussions*, **2016**, 192, 581-599	3.6	7
11	Influence of Flexibility on the Properties of Chain Molecules. *Advances in Chemistry Series*, **1983**, 469-485		6
10	Extension of Vibrating-Wire Viscometry to Electrically Conducting Fluids and Measurements of Viscosity and Density of Brines with Dissolved CO2 at Reservoir Conditions. *Journal of Chemical & Engineering Data*, **2019**, 64, 3831-3847	2.8	3
9	Effects of chain flexibility on polymer solution dynamics. *Journal of the Chemical Society, Faraday Transactions*, **1992**, 88, 1803		3
8	Pressurized In Situ CO2 Capture from Biomass Combustion via the Calcium Looping Process in a Spout-Fluidized-Bed Reactor. *Industrial & Engineering Chemistry Research*, **2020**, 59, 8571-8580	3.9	2
7	Correlation of the zero-density viscosity of polyatomic gases. *International Journal of Thermophysics* , **1986**, 7, 553-562	2.1	2
6	Phase Behaviour of Methane Hydrates in Confined Media. *Crystals*, **2021**, 11, 201	2.3	1

List of Publications

5	Correction to Interfacial Tension of (Brines + CO2): (0.864 NaCl + 0.136 KCl) at Temperatures between (298 and 448) K, Pressures between (2 and 50) MPa, and Total Molalities of (1 to 5) mol kg1 *Journal of Chemical & Engineering Data*, **2018**, 63, 2333-2334	2.8	1
4	Hybrid Pore-Scale Adsorption Model for CO2 and CH4 Storage in Shale. *Energy & Fuels*, **2022**, 36, 3443-3456	4.1	0
3	Phase equilibria of (CO2+butylbenzene) and (CO2+butylcyclohexane) at temperatures between (323.15 and 423.15)K and at pressures up to 21MPa. *Fluid Phase Equilibria*, **2015**, 387, 111-116	2.5	
2	Electro-optic birefringence and scattering of concentrated solutions of ethylcellulose. *Angewandte Makromolekulare Chemie*, **1999**, 268, 1-12		
1	Carbon capture and storage: The way ahead. *Sustainable Technologies Systems & Policies*, **2012**, 9		