

Chris Greenwell

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

88

papers

3,811

citations

32

h-index

60

g-index

90

ext. papers

4,212

ext. citations

6.9

avg, IF

5.45

L-index

#	Paper	IF	Citations
88	Placing microalgae on the biofuels priority list: a review of the technological challenges. <i>Journal of the Royal Society Interface</i> , 2010 , 7, 703-26	4.1	590
87	Clay swelling – A challenge in the oilfield. <i>Earth-Science Reviews</i> , 2010 , 98, 201-216	10.2	379
86	A critical appraisal of polymer-clay nanocomposites. <i>Chemical Society Reviews</i> , 2008 , 37, 568-94	58.5	324
85	Large-Scale Molecular Dynamics Study of Montmorillonite Clay: Emergence of Undulatory Fluctuations and Determination of Material Properties. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 8248-8259	3.8	122
84	On the application of computer simulation techniques to anionic and cationic clays: A materials chemistry perspective. <i>Journal of Materials Chemistry</i> , 2006 , 16, 708-723		119
83	Catalytic upgrading of tri-glycerides and fatty acids to transport biofuels. <i>Energy and Environmental Science</i> , 2009 , 2, 262-271	35.4	109
82	Computer simulation study of the structural stability and materials properties of DNA-intercalated layered double hydroxides. <i>Journal of the American Chemical Society</i> , 2008 , 130, 4742-56	16.4	109
81	Molecular Dynamic Simulations of Montmorillonite Organic Interactions under Varying Salinity: An Insight into Enhanced Oil Recovery. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 7282-7294	3.8	82
80	Rule based design of clay-swelling inhibitors. <i>Energy and Environmental Science</i> , 2011 , 4, 4572	35.4	80
79	Preparation of zinc oxide free, transparent rubber nanocomposites using a layered double hydroxide filler. <i>Journal of Materials Chemistry</i> , 2011 , 21, 7194		79
78	Recent advances in understanding the structure and reactivity of clays using electronic structure calculations. <i>Computational and Theoretical Chemistry</i> , 2006 , 762, 33-48		70
77	Towards a mechanistic understanding of carbon stabilization in manganese oxides. <i>Nature Communications</i> , 2015 , 6, 7628	17.4	69
76	Thermochemical processing of macroalgae: a late bloomer in the development of third-generation biofuels?. <i>Biofuels</i> , 2012 , 3, 441-461	2	68
75	Recent advances in large-scale atomistic and coarse-grained molecular dynamics simulation of clay minerals. <i>Journal of Materials Chemistry</i> , 2009 , 19, 2482		68
74	Interlayer Structure and Bonding in Nonswelling Primary Amine Intercalated Clays. <i>Macromolecules</i> , 2005 , 38, 6189-6200	5.5	66
73	Studies of the effects of synthetic procedure on base catalysis using hydroxide-intercalated layer double hydroxides. <i>Catalysis Today</i> , 2006 , 114, 397-402	5.3	60
72	A Density Functional Theory Study of Catalytic trans-Esterification by tert-Butoxide MgAl Anionic Clays. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 3476-3485	3.4	59

71	Mineral surface chemistry control for origin of prebiotic peptides. <i>Nature Communications</i> , 2017 , 8, 20331-7.4	58
70	Clay minerals mediate folding and regioselective interactions of RNA: a large-scale atomistic simulation study. <i>Journal of the American Chemical Society</i> , 2010 , 132, 13750-64	16.4 56
69	Role of host layer flexibility in DNA guest intercalation revealed by computer simulation of layered nanomaterials. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12485-95	16.4 53
68	Emergence of Undulations and Determination of Materials Properties in Large-Scale Molecular Dynamics Simulation of Layered Double Hydroxides. <i>Chemistry of Materials</i> , 2007 , 19, 5510-5523	9.6 52
67	Wetting Effects and Molecular Adsorption at Hydrated Kaolinite Clay Mineral Surfaces. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11433-11449	3.8 51
66	Theory, modelling and simulation in origins of life studies. <i>Chemical Society Reviews</i> , 2012 , 41, 5430-46	58.5 50
65	Layered double hydroxide minerals as possible prebiotic information storage and transfer compounds. <i>Origins of Life and Evolution of Biospheres</i> , 2006 , 36, 13-37	1.5 48
64	The Water-Alkane Interface at Various NaCl Salt Concentrations: A Molecular Dynamics Study of the Readily Available Force Fields. <i>Scientific Reports</i> , 2018 , 8, 352	4.9 43
63	Intercalation and in situ polymerization of poly(alkylene oxide) derivatives within M+-montmorillonite (M = Li, Na, K). <i>Journal of Materials Chemistry</i> , 2006 , 16, 1082	42
62	Ion Adsorption at Clay-Mineral Surfaces: The Hofmeister Series for Hydrated Smectite Minerals. <i>Clays and Clay Minerals</i> , 2016 , 64, 472-487	2.1 40
61	Methylene Blue Adsorption on the Basal Surfaces of Kaolinite: Structure and Thermodynamics from Quantum and Classical Molecular Simulation. <i>Clays and Clay Minerals</i> , 2015 , 63, 185-198	2.1 39
60	Understanding Model Crude Oil Component Interactions on Kaolinite Silicate and Aluminol Surfaces: Toward Improved Understanding of Shale Oil Recovery. <i>Energy & Fuels</i> , 2018 , 32, 1155-1165	4.1 38
59	Interaction of Natural Organic Matter with Layered Minerals: Recent Developments in Computational Methods at the Nanoscale. <i>Minerals (Basel, Switzerland)</i> , 2014 , 4, 519-540	2.4 37
58	Monster potential meets potential monster: pros and cons of deploying genetically modified microalgae for biofuels production. <i>Interface Focus</i> , 2013 , 3, 20120037	3.9 35
57	Selection for fitness at the individual or population levels: modelling effects of genetic modifications in microalgae on productivity and environmental safety. <i>Journal of Theoretical Biology</i> , 2010 , 263, 269-80	2.3 35
56	The effect of interbedding on shale reservoir properties. <i>Marine and Petroleum Geology</i> , 2015 , 67, 154-169	4.7 30
55	Computer simulation of interlayer arrangement in cinnamate intercalated layered double hydroxides. <i>Journal of Molecular Structure</i> , 2003 , 647, 75-83	3.4 30
54	Monomer Adsorption on Kaolinite: Modeling the Essential Ingredients. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 22365-22374	3.8 28

53	Copper(II)-mediated thermolysis of alginates: a model kinetic study on the influence of metal ions in the thermochemical processing of macroalgae. <i>Interface Focus</i> , 2013 , 3, 20120046	3.9	28
52	Role of clay minerals in oil-forming reactions. <i>Journal of Physical Chemistry A</i> , 2010 , 114, 3569-75	2.8	28
51	Serpentinization: Connecting Geochemistry, Ancient Metabolism and Industrial Hydrogenation. <i>Life</i> , 2018 , 8,	3	28
50	Influence of surface chemistry and charge on mineral-RNA interactions. <i>Langmuir</i> , 2013 , 29, 1573-83	4	27
49	Multi-technique approach to the petrophysical characterization of Berea sandstone core plugs (Cleveland Quarries, USA). <i>Journal of Petroleum Science and Engineering</i> , 2017 , 149, 436-455	4.4	26
48	Efficient synthesis of ordered organo-layered double hydroxides. <i>Green Chemistry</i> , 2010 , 12, 688	10	26
47	A one-pot synthesis of hybrid organo-layered double hydroxide catalyst precursors. <i>Green Chemistry</i> , 2006 , 8, 1067	10	25
46	In situ monitoring of crystal growth and dissolution of oriented layered double-hydroxide crystals immobilized on silicon. <i>Journal of Crystal Growth</i> , 2006 , 294, 53-59	1.6	23
45	Stability of free and mineral-protected nucleic acids: Implications for the RNA world. <i>Geochimica Et Cosmochimica Acta</i> , 2012 , 83, 360-378	5.5	22
44	Synthesis of organo-layered double hydroxides by an environmentally friendly co-hydration route. <i>Green Chemistry</i> , 2007 , 9, 1299	10	19
43	Geochemical and lithological controls on a potential shale reservoir: Carboniferous Holywell Shale, Wales. <i>Marine and Petroleum Geology</i> , 2016 , 71, 198-210	4.7	17
42	Chiral interactions of histidine in a hydrated vermiculite clay. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 825-30	3.6	17
41	Determining materials properties of natural composites using molecular simulation. <i>Journal of Materials Chemistry</i> , 2009 , 19, 7251		17
40	Biodiesel Production via Trans-Esterification Using Immobilized on Cellulosic Polyurethane. <i>ACS Omega</i> , 2018 , 3, 6804-6811	3.9	17
39	The nutritional aspects of biorefined <i>Saccharina latissima</i> , <i>Ascophyllum nodosum</i> and <i>Palmaria palmata</i> . <i>Biomass Conversion and Biorefinery</i> , 2017 , 7, 221-235	2.3	16
38	Aqueous immiscible layered double hydroxides: synthesis, characterisation and molecular dynamics simulation. <i>Chemical Communications</i> , 2018 , 54, 4394-4397	5.8	16
37	Understanding surface interactions in aqueous miscible organic solvent treated layered double hydroxides. <i>RSC Advances</i> , 2017 , 7, 5076-5083	3.7	15
36	Insights into the behaviour of biomolecules on the early Earth: The concentration of aspartate by layered double hydroxide minerals. <i>Geochimica Et Cosmochimica Acta</i> , 2016 , 176, 239-258	5.5	14

35	Iron reduction in nontronite-type clay minerals: Modelling a complex system. <i>Geochimica Et Cosmochimica Acta</i> , 2012 , 81, 13-27	5.5	13
34	Changes in higher heating value and ash content of seaweed during ensiling. <i>Journal of Applied Phycology</i> , 2017 , 29, 1037-1046	3.2	12
33	The first 1,2,3-tris(phosphinomethyl)ferrocene. <i>Inorganic Chemistry Communication</i> , 2004 , 7, 923-928	3.1	12
32	Crystal chemistry of natural layered double hydroxides. 5. Single-crystal structure refinement of hydroxalcalite, [Mg ₆ Al ₂ (OH) ₁₆](CO ₃)(H ₂ O) ₄ . <i>Mineralogical Magazine</i> , 2019 , 83, 269-280	1.7	12
31	Osmium uptake, distribution, and 187Os/188Os and 187Re/188Os compositions in Phaeophyceae macroalgae, <i>Fucus vesiculosus</i> : Implications for determining the 187Os/188Os composition of seawater. <i>Geochimica Et Cosmochimica Acta</i> , 2017 , 199, 48-57	5.5	11
30	Ab initio transition state searching in complex systems: Fatty acid decarboxylation in minerals. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 2658-67	2.8	11
29	The design and synthesis of a new potentially C ₃ -symmetric ferrocenylphosphine. <i>Journal of Organometallic Chemistry</i> , 2003 , 679, 59-64	2.3	11
28	Rhenium uptake and distribution in phaeophyceae macroalgae, <i>Fucus vesiculosus</i> . <i>Royal Society Open Science</i> , 2016 , 3, 160161	3.3	10
27	Ion-specific interactions at calcite-brine interfaces: a nano-scale study of the surface charge development and preferential binding of polar hydrocarbons. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 27999-28011	3.6	9
26	A New Framework to Quantify the Wetting Behaviour of Carbonate Rock Surfaces Based on the Relationship between Zeta Potential and Contact Angle. <i>Energies</i> , 2020 , 13, 993	3.1	9
25	Understanding the Swelling Behavior of Modified Nanoclay Filler Particles in Water and Ethanol. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 12625-12642	3.8	9
24	DFT+U investigation of the catalytic properties of ferruginous clay. <i>American Mineralogist</i> , 2013 , 98, 132-140	2.4	9
23	Morphology and elastic modulus of novel poly[oligo(ethylene glycol) diacrylate]-montmorillonite nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005 , 43, 1785-1793	2.6	9
22	Biofuels, science and society. <i>Interface Focus</i> , 2013 , 3, 20120093	3.9	8
21	Understanding Cationic Polymer Adsorption on Mineral Surfaces: Kaolinite in Cement Aggregates. <i>Minerals (Basel, Switzerland)</i> , 2018 , 8, 130	2.4	7
20	Peptide Formation on Layered Mineral Surfaces: The Key Role of Brucite-like Minerals on the Enhanced Formation of Alanine Dipeptides. <i>ACS Earth and Space Chemistry</i> , 2018 , 2, 852-862	3.2	7
19	Decoupling a novel <i>Trichormus variabilis</i> - <i>Synechocystis</i> sp. interaction to boost phycoremediation. <i>Scientific Reports</i> , 2019 , 9, 2511	4.9	6
18	Ketone Formation via Decarboxylation Reactions of Fatty Acids Using Solid Hydroxide/Oxide Catalysts. <i>Inorganics</i> , 2018 , 6, 121	2.9	6

17	Thermal Evolution of Natural Layered Double Hydroxides: Insight from Quintinite, Hydrotalcite, Stichtite, and Iowaite as Reference Samples for CO ₃ ⁻ and Cl-Members of the Hydrotalcite Supergroup. <i>Minerals (Basel, Switzerland)</i> , 2020 , 10, 961	2.4	5
16	A Deep Look into the Dynamics of Saltwater Imbibition in a Calcite Nanochannel: Temperature Impacts Capillarity Regimes. <i>Langmuir</i> , 2020 , 36, 9035-9046	4	5
15	Ultra-high aspect ratio hybrid materials: the role of organic guest and synthesis method. <i>Dalton Transactions</i> , 2018 , 47, 2933-2938	4.3	5
14	Translocation of isotopically distinct macroalgae: A route to low-cost biomonitoring?. <i>Chemosphere</i> , 2017 , 184, 1175-1185	8.4	5
13	Adding Value to Waste Minerals in a Circular Economy Framework: Ochre-Derived Layered Double Hydroxide Catalysts in Fatty Acid Ketonisation. <i>Minerals (Basel, Switzerland)</i> , 2019 , 9, 681	2.4	4
12	Atomistic Insight into the Behavior of Ions at an Oil-Bearing Hydrated Calcite Surface: Implication to Ion-Engineered Waterflooding. <i>Energy & Fuels</i> , 2021 , 35, 13039-13054	4.1	4
11	Chemical Force Microscopy Study on the Interactions of COOH Functional Groups with Kaolinite Surfaces: Implications for Enhanced Oil Recovery. <i>Minerals (Basel, Switzerland)</i> , 2017 , 7, 250	2.4	3
10	Bioenergy production using <i>Trichormus variabilis</i> ▯ review. <i>Biofuels, Bioproducts and Biorefining</i> , 2019 , 13, 1365-1382	5.3	2
9	Analytical solution for clay plug swelling experiments. <i>Applied Clay Science</i> , 2017 , 149, 75-78	5.2	2
8	Modeling Layered-Mineral Organic Interactions 2010 , 255-279		2
7	Reduced to Hierarchy: Carbon Filament-Supported Mixed Metal Oxide Nanoparticles. <i>ACS Omega</i> , 2019 , 4, 20230-20236	3.9	2
6	Heterogeneous ketonic decarboxylation of dodecanoic acid: studying reaction parameters.. <i>RSC Advances</i> , 2021 , 11, 35575-35584	3.7	1
5	Solution-state behaviour of algal mono-uronates evaluated by pure shift and compressive sampling NMR techniques. <i>Carbohydrate Research</i> , 2020 , 495, 108087	2.9	1
4	Opening the : NMR spectroscopic analysis of the interactions between s-block cations and kelp monosaccharides. <i>Dalton Transactions</i> , 2021 , 50, 13246-13255	4.3	0
3	DynDen: Assessing convergence of molecular dynamics simulations of interfaces. <i>Computer Physics Communications</i> , 2021 , 269, 108126	4.2	0
2	Effect of Structural Fe Reduction on Water Sorption by Swelling and Non-Swelling Clay Minerals. <i>Minerals (Basel, Switzerland)</i> , 2022 , 12, 453	2.4	0
1	Gaining Insight into the Structure and Dynamics of ClayPolymer Nanocomposite Systems Through Computer Simulation 2008 , 175-203		