

Chris Greenwell

List of Publications by Year in descending order

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88
papers

4,600
citations

109321

35
h-index

102487

66
g-index

90
all docs

90
docs citations

90
times ranked

5240
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Structural Fe Reduction on Water Sorption by Swelling and Non-Swelling Clay Minerals. Minerals (Basel, Switzerland), 2022, 12, 453.	2.0	3
2	Far- and mid-infrared examination of nontronite-1 clay mineral " Redox and cation saturation effects. Applied Clay Science, 2022, 228, 106628.	5.2	1
3	Opening the <i>Egg Box</i>: NMR spectroscopic analysis of the interactions between s-block cations and kelp monosaccharides. Dalton Transactions, 2021, 50, 13246-13255.	3.3	3
4	Atomistic Insight into the Behavior of Ions at an Oil-Bearing Hydrated Calcite Surface: Implication to Ion-Engineered Waterflooding. Energy & Fuels, 2021, 35, 13039-13054.	5.1	9
5	DynDen: Assessing convergence of molecular dynamics simulations of interfaces. Computer Physics Communications, 2021, 269, 108126.	7.5	2
6	Heterogeneous ketonic decarboxylation of dodecanoic acid: studying reaction parameters. RSC Advances, 2021, 11, 35575-35584.	3.6	1
7	Solution-state behaviour of algal mono-uronates evaluated by pure shift and compressive sampling NMR techniques. Carbohydrate Research, 2020, 495, 108087.	2.3	1
8	Ion-specific interactions at calcite"brine interfaces: a nano-scale study of the surface charge development and preferential binding of polar hydrocarbons. Physical Chemistry Chemical Physics, 2020, 22, 27999-28011.	2.8	13
9	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. Minerals (Basel, Switzerland), 2020, 10, 961.	2.0	8
10	A Deep Look into the Dynamics of Saltwater Imbibition in a Calcite Nanochannel: Temperature Impacts Capillarity Regimes. Langmuir, 2020, 36, 9035-9046.	3.5	10
11	A New Framework to Quantify the Wetting Behaviour of Carbonate Rock Surfaces Based on the Relationship between Zeta Potential and Contact Angle. Energies, 2020, 13, 993.	3.1	12
12	Bioenergy production using <i>Trichormus variabilis</i> " a review. Biofuels, Bioproducts and Biorefining, 2019, 13, 1365-1382.	3.7	7
13	Decoupling a novel <i>Trichormus variabilis</i> - <i>Synechocystis</i> sp. interaction to boost phycoremediation. Scientific Reports, 2019, 9, 2511.	3.3	10
14	Reduced to Hierarchy: Carbon Filament-Supported Mixed Metal Oxide Nanoparticles. ACS Omega, 2019, 4, 20230-20236.	3.5	2
15	Adding Value to Waste Minerals in a Circular Economy Framework: Ochre-Derived Layered Double Hydroxide Catalysts in Fatty Acid Ketonisation. Minerals (Basel, Switzerland), 2019, 9, 681.	2.0	5
16	Crystal chemistry of natural layered double hydroxides. 5. Single-crystal structure refinement of hydrotalcite, [Mg ₆ Al ₂ (OH) ₁₆](CO ₃)(H ₂ O) ₄ . Mineralogical Magazine, 2019, 83, 269-280.	1.4	22
17	Aqueous immiscible layered double hydroxides: synthesis, characterisation and molecular dynamics simulation. Chemical Communications, 2018, 54, 4394-4397.	4.1	18
18	Ultra-high aspect ratio hybrid materials: the role of organic guest and synthesis method. Dalton Transactions, 2018, 47, 2933-2938.	3.3	6

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19	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.	3.3	63
20	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.	5.1	62
21	Ketone Formation via Decarboxylation Reactions of Fatty Acids Using Solid Hydroxide/Oxide Catalysts. <i>Inorganics</i> , 2018, 6, 121.	2.7	7
22	Serpentinization: Connecting Geochemistry, Ancient Metabolism and Industrial Hydrogenation. <i>Life</i> , 2018, 8, 41.	2.4	61
23	Biodiesel Production via Trans-Esterification Using <i>Pseudomonas cepacia</i> Immobilized on Cellulosic Polyurethane. <i>ACS Omega</i> , 2018, 3, 6804-6811.	3.5	23
24	Understanding Cationic Polymer Adsorption on Mineral Surfaces: Kaolinite in Cement Aggregates. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 130.	2.0	14
25	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.	2.7	9
26	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.	3.9	14
27	Understanding surface interactions in aqueous miscible organic solvent treated layered double hydroxides. <i>RSC Advances</i> , 2017, 7, 5076-5083.	3.6	19
28	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.	4.6	25
29	Analytical solution for clay plug swelling experiments. <i>Applied Clay Science</i> , 2017, 149, 75-78.	5.2	7
30	Mineral surface chemistry control for origin of prebiotic peptides. <i>Nature Communications</i> , 2017, 8, 2033.	12.8	85
31	Translocation of isotopically distinct macroalgae: A route to low-cost biomonitoring?. <i>Chemosphere</i> , 2017, 184, 1175-1185.	8.2	8
32	Changes in higher heating value and ash content of seaweed during ensiling. <i>Journal of Applied Phycology</i> , 2017, 29, 1037-1046.	2.8	12
33	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.	4.2	36
34	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.	2.0	4
35	Ion Adsorption at Clay-Mineral Surfaces: The Hofmeister Series for Hydrated Smectite Minerals. <i>Clays and Clay Minerals</i> , 2016, 64, 472-487.	1.3	52
36	Rhenium uptake and distribution in phaeophyceae macroalgae, <i>Fucus vesiculosus</i> . <i>Royal Society Open Science</i> , 2016, 3, 160161.	2.4	12

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37	Wetting Effects and Molecular Adsorption at Hydrated Kaolinite Clay Mineral Surfaces. <i>Journal of Physical Chemistry C</i> , 2016, 120, 11433-11449.	3.1	70
38	Geochemical and lithological controls on a potential shale reservoir: Carboniferous Holywell Shale, Wales. <i>Marine and Petroleum Geology</i> , 2016, 71, 198-210.	3.3	29
39	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.	3.9	18
40	Understanding the Swelling Behavior of Modified Nanoclay Filler Particles in Water and Ethanol. <i>Journal of Physical Chemistry C</i> , 2015, 119, 12625-12642.	3.1	12
41	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.	1.3	45
42	Towards a mechanistic understanding of carbon stabilization in manganese oxides. <i>Nature Communications</i> , 2015, 6, 7628.	12.8	102
43	The effect of interbedding on shale reservoir properties. <i>Marine and Petroleum Geology</i> , 2015, 67, 154-169.	3.3	37
44	Molecular Dynamic Simulations of Montmorillonite's Organic Interactions under Varying Salinity: An Insight into Enhanced Oil Recovery. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7282-7294.	3.1	100
45	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.	2.0	48
46	Influence of Surface Chemistry and Charge on Mineral's RNA Interactions. <i>Langmuir</i> , 2013, 29, 1573-1583.	3.5	32
47	Monster potential meets potential monster: pros and cons of deploying genetically modified microalgae for biofuels production. <i>Interface Focus</i> , 2013, 3, 20120037.	3.0	37
48	DFT+U investigation of the catalytic properties of ferruginous clay. <i>American Mineralogist</i> , 2013, 98, 132-140.	1.9	9
49	Biofuels, science and society. <i>Interface Focus</i> , 2013, 3, 20120093.	3.0	10
50	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.	3.0	41
51	Thermochemical processing of macroalgae: a late bloomer in the development of third-generation biofuels?. <i>Biofuels</i> , 2012, 3, 441-461.	2.4	74
52	Monomer Adsorption on Kaolinite: Modeling the Essential Ingredients. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22365-22374.	3.1	33
53	Iron reduction in nontronite-type clay minerals: Modelling a complex system. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 81, 13-27.	3.9	14
54	Stability of free and mineral-protected nucleic acids: Implications for the RNA world. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 83, 360-378.	3.9	25

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55	Theory, modelling and simulation in origins of life studies. <i>Chemical Society Reviews</i> , 2012, 41, 5430.	38.1	65
56	Chiral interactions of histidine in a hydrated vermiculite clay. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 825-830.	2.8	20
57	Rule based design of clay-swelling inhibitors. <i>Energy and Environmental Science</i> , 2011, 4, 4572.	30.8	95
58	Preparation of zinc oxide free, transparent rubber nanocomposites using a layered double hydroxide filler. <i>Journal of Materials Chemistry</i> , 2011, 21, 7194.	6.7	100
59	Ab Initio Transition State Searching in Complex Systems: Fatty Acid Decarboxylation in Minerals.. <i>Journal of Physical Chemistry A</i> , 2011, 115, 2658-2667.	2.5	11
60	Placing microalgae on the biofuels priority list: a review of the technological challenges. <i>Journal of the Royal Society Interface</i> , 2010, 7, 703-726.	3.4	680
61	Clay swelling – A challenge in the oilfield. <i>Earth-Science Reviews</i> , 2010, 98, 201-216.	9.1	492
62	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, 269-280.	1.7	38
63	Efficient synthesis of ordered organo-layered double hydroxides. <i>Green Chemistry</i> , 2010, 12, 688.	9.0	31
64	Role of Clay Minerals in Oil-Forming Reactions. <i>Journal of Physical Chemistry A</i> , 2010, 114, 3569-3575.	2.5	30
65	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, 13750-13764.	13.7	62
66	Catalytic upgrading of tri-glycerides and fatty acids to transport biofuels. <i>Energy and Environmental Science</i> , 2009, 2, 262-271.	30.8	121
67	Determining materials properties of natural composites using molecular simulation. <i>Journal of Materials Chemistry</i> , 2009, 19, 7251.	6.7	21
68	Recent advances in large-scale atomistic and coarse-grained molecular dynamics simulation of clay minerals. <i>Journal of Materials Chemistry</i> , 2009, 19, 2482.	6.7	74
69	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, 4742-4756.	13.7	118
70	A critical appraisal of polymer-clay nanocomposites. <i>Chemical Society Reviews</i> , 2008, 37, 568-594.	38.1	369
71	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, 12485-12495.	13.7	60
72	Gaining Insight into the Structure and Dynamics of Clay-Polymer Nanocomposite Systems Through Computer Simulation. , 2008, , 175-203.		0

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73	Synthesis of organo-layered double hydroxides by an environmentally friendly co-hydration route. <i>Green Chemistry</i> , 2007, 9, 1299.	9.0	19
74	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.	3.1	138
75	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.	6.7	54
76	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.	6.7	124
77	A one-pot synthesis of hybrid organo-layered double hydroxide catalyst precursors. <i>Green Chemistry</i> , 2006, 8, 1067.	9.0	28
78	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.	6.7	45
79	Studies of the effects of synthetic procedure on base catalysis using hydroxide-intercalated layer double hydroxides. <i>Catalysis Today</i> , 2006, 114, 397-402.	4.4	65
80	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.	1.5	23
81	Recent advances in understanding the structure and reactivity of clays using electronic structure calculations. <i>Computational and Theoretical Chemistry</i> , 2006, 762, 33-48.	1.5	77
82	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.	1.9	57
83	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.	2.1	9
84	Interlayer Structure and Bonding in Nonswelling Primary Amine Intercalated Clays. <i>Macromolecules</i> , 2005, 38, 6189-6200.	4.8	73
85	The first 1,2,3-tris(phosphinomethyl)ferrocene. <i>Inorganic Chemistry Communication</i> , 2004, 7, 923-928.	3.9	13
86	Computer simulation of interlayer arrangement in cinnamate intercalated layered double hydroxides. <i>Journal of Molecular Structure</i> , 2003, 647, 75-83.	3.6	31
87	The design and synthesis of a new potentially C ₃ -symmetric ferrocenylphosphine. <i>Journal of Organometallic Chemistry</i> , 2003, 679, 59-64.	1.8	13
88	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.	2.6	60