Magda Titirici

List of Publications by Citations

274 papers	27,926 citations	81 h-index	164 g-index
300 ext. papers	31,859 ext. citations	10.8 avg, IF	7.58 L-index

#	Paper	IF	Citations
274	Engineering carbon materials from the hydrothermal carbonization process of biomass. *Advanced Materials*, **2010**, 22, 813-28	24	1282
273	Hydrothermal carbonization of biomass residuals: a comparative review of the chemistry, processes and applications of wet and dry pyrolysis. *Biofuels*, **2011**, 2, 71-106	2	1013
272	Hollow Carbon Nanospheres with Superior Rate Capability for Sodium-Based Batteries. *Advanced Energy Materials*, **2012**, 2, 873-877	21.8	915
271	Chemistry and materials options of sustainable carbon materials made by hydrothermal carbonization. *Chemical Society Reviews*, **2010**, 39, 103-16	58.5	857
270	Superior storage performance of a Si@SiOx/C nanocomposite as anode material for lithium-ion batteries. *Angewandte Chemie - International Edition*, **2008**, 47, 1645-9	16.4	855
269	Sustainable carbon materials. *Chemical Society Reviews*, **2015**, 44, 250-90	58.5	826
268	Nitrogen-containing hydrothermal carbons with superior performance in supercapacitors. *Advanced Materials*, **2010**, 22, 5202-6	24	789
267	Black perspectives for a green future: hydrothermal carbons for environment protection and energy storage. *Energy and Environmental Science*, **2012**, 5, 6796	35.4	631
266	Hydrothermal carbon from biomass: a comparison of the local structure from poly- to monosaccharides and pentoses/hexoses. *Green Chemistry*, **2008**, 10, 1204	10	609
265	A Generalized Synthesis of Metal Oxide Hollow Spheres Using a Hydrothermal Approach. *Chemistry of Materials*, **2006**, 18, 3808-3812	9.6	586
264	Topological Defects in Metal-Free Nanocarbon for Oxygen Electrocatalysis. *Advanced Materials*, **2016**, 28, 6845-51	24	522
263	A one-pot hydrothermal synthesis of sulfur and nitrogen doped carbon aerogels with enhanced electrocatalytic activity in the oxygen reduction reaction. *Green Chemistry*, **2012**, 14, 1515	10	494
262	Hard Carbon Microtubes Made from Renewable Cotton as High-Performance Anode Material for Sodium-Ion Batteries. *Advanced Energy Materials*, **2016**, 6, 1600659	21.8	488
261	Morphological and structural differences between glucose, cellulose and lignocellulosic biomass derived hydrothermal carbons. *Green Chemistry*, **2011**, 13, 3273	10	483
260	Carboxylate-Rich Carbonaceous Materials via One-Step Hydrothermal Carbonization of Glucose in the Presence of Acrylic Acid. *Chemistry of Materials*, **2009**, 21, 484-490	9.6	428
259	One-step solvothermal synthesis of a carbon@TiO(2) dyade structure effectively promoting visible-light photocatalysis. *Advanced Materials*, **2010**, 22, 3317-21	24	411
258	Levulinic Acid Biorefineries: New Challenges for Efficient Utilization of Biomass. *ChemSusChem*, **2016**, 9, 562-82	8.3	408

257	Facile One-Pot Synthesis of Mesoporous SnO2 Microspheres via Nanoparticles Assembly and Lithium Storage Properties. *Chemistry of Materials*, **2008**, 20, 1227-1229	9.6	401
256	A review of rechargeable batteries for portable electronic devices. *InformaMaterly*, **2019**, 1, 6-32	23.1	400
255	A Direct Synthesis of Mesoporous Carbons with Bicontinuous Pore Morphology from Crude Plant Material by Hydrothermal Carbonization. *Chemistry of Materials*, **2007**, 19, 4205-4212	9.6	391
254	Back in the black: hydrothermal carbonization of plant material as an efficient chemical process to treat the CO2 problem?. *New Journal of Chemistry*, **2007**, 31, 787	3.6	361
253	Recent advances of electrode materials for low-cost sodium-ion batteries towards practical application for grid energy storage. *Energy Storage Materials*, **2017**, 7, 130-151	19.4	351
252	Fe-N-Doped Carbon Capsules with Outstanding Electrochemical Performance and Stability for the Oxygen Reduction Reaction in Both Acid and Alkaline Conditions. *ACS Nano*, **2016**, 10, 5922-32	16.7	345
251	Structural Characterization of Hydrothermal Carbon Spheres by Advanced Solid-State MAS 13C NMR Investigations. *Journal of Physical Chemistry C*, **2009**, 113, 9644-9654	3.8	333
250	Sustainable nitrogen-doped carbonaceous materials from biomass derivatives. *Carbon*, **2010**, 48, 3778-3787	10.4	332
249	Hydrothermal conversion of biomass to fuels and energetic materials. *Current Opinion in Chemical Biology*, **2013**, 17, 515-21	9.7	325
248	Active sites engineering leads to exceptional ORR and OER bifunctionality in P,N Co-doped graphene frameworks. *Energy and Environmental Science*, **2017**, 10, 1186-1195	35.4	310
247	Intercalation chemistry of graphite: alkali metal ions and beyond. *Chemical Society Reviews*, **2019**, 48, 4655-4687	58.5	275
246	Biomass-derived carbon quantum dot sensitizers for solid-state nanostructured solar cells. *Angewandte Chemie - International Edition*, **2015**, 54, 4463-8	16.4	259
245	Functional hollow carbon nanospheres by latex templating. *Journal of the American Chemical Society*, **2010**, 132, 17360-3	16.4	235
244	Material derived from hydrothermal carbonization: Effects on plant growth and arbuscular mycorrhiza. *Applied Soil Ecology*, **2010**, 45, 238-242	5	231
243	Rice husk-derived carbon anodes for lithium ion batteries. *Journal of Materials Chemistry A*, **2013**, 1, 5269	13	230
242	A review of nanocarbons in energy electrocatalysis: Multifunctional substrates and highly active sites. *Journal of Energy Chemistry*, **2017**, 26, 1077-1093	12	220
241	Replication and Coating of Silica Templates by Hydrothermal Carbonization. *Advanced Functional Materials*, **2007**, 17, 1010-1018	15.6	220
240	Carbohydrate-derived hydrothermal carbons: a thorough characterization study. *Langmuir*, **2012**, 28, 12373-83	4	212

239	Hydrothermal carbon from biomass: structural differences between hydrothermal and pyrolyzed carbons via 13C solid state NMR. *Langmuir*, **2011**, 27, 14460-71	4	209
238	A Review of Functional Binders in Lithium‐Sulfur Batteries. *Advanced Energy Materials*, **2018**, 8, 1802107	21.8	203
237	Selective partial hydrogenation of hydroxy aromatic derivatives with palladium nanoparticles supported on hydrophilic carbon. *Chemical Communications*, **2008**, 999-1001	5.8	202
236	High-performance CO2 sorbents from algae. *RSC Advances*, **2012**, 2, 12792	3.7	194
235	Hollow carbon nanospheres with a high rate capability for lithium-based batteries. *ChemSusChem*, **2012**, 5, 400-3	8.3	190
234	Thin Molecularly Imprinted Polymer Films via Reversible Addition−Fragmentation Chain Transfer Polymerization. *Chemistry of Materials*, **2006**, 18, 1773-1779	9.6	182
233	Naturally inspired nitrogen doped porous carbon. *Journal of Materials Chemistry*, **2009**, 19, 8645		179
232	A sustainable synthesis of nitrogen-doped carbon aerogels. *Green Chemistry*, **2011**, 13, 2428	10	172
231	Nanoporous Materials for the Onboard Storage of Natural Gas. *Chemical Reviews*, **2017**, 117, 1796-1825	68.1	170
230	S, N-Co-Doped Graphene-Nickel Cobalt Sulfide Aerogel: Improved Energy Storage and Electrocatalytic Performance. *Advanced Science*, **2017**, 4, 1600214	13.6	169
229	Porous polymers: enabling solutions for energy applications. *Macromolecular Rapid Communications* , **2009**, 30, 221-36	4.8	168
228	Tailoring the porosity of chemically activated hydrothermal carbons: Influence of the precursor and hydrothermal carbonization temperature. *Carbon*, **2013**, 62, 346-355	10.4	165
227	Production of low-cost adsorbents with tunable surface chemistry by conjunction of hydrothermal carbonization and activation processes. *Microporous and Mesoporous Materials*, **2013**, 165, 127-133	5.3	162
226	The influence of pore size distribution on the oxygen reduction reaction performance in nitrogen doped carbon microspheres. *Journal of Materials Chemistry A*, **2016**, 4, 2581-2589	13	158
225	Carbon dioxide capture on amine-rich carbonaceous materials derived from glucose. *ChemSusChem*, **2010**, 3, 840-5	8.3	158
224	Hydrothermal carbon-based nanostructured hollow spheres as electrode materials for high-power lithium-sulfur batteries. *Physical Chemistry Chemical Physics*, **2013**, 15, 6080-7	3.6	156
223	Efficient metal-free N-doped mesoporous carbon catalysts for ORR by a template-free approach. *Carbon*, **2016**, 106, 179-187	10.4	149
222	Aminated hydrophilic ordered mesoporous carbons. *Journal of Materials Chemistry*, **2007**, 17, 3412		145

221	A one-pot hydrothermal synthesis of tunable dual heteroatom-doped carbon microspheres. *Green Chemistry*, **2012**, 14, 741	10	142
220	Hydrothermal carbons from hemicellulose-derived aqueous hydrolysis products as electrode materials for supercapacitors. *ChemSusChem*, **2013**, 6, 374-82	8.3	138
219	Borax-Mediated Formation of Carbon Aerogels from Glucose. *Advanced Functional Materials*, **2012**, 22, 3254-3260	15.6	136
218	Hydrothermal synthesis of microalgae-derived microporous carbons for electrochemical capacitors. *Journal of Power Sources*, **2014**, 267, 26-32	8.9	131
217	Always look on the "light" side of life: sustainable carbon aerogels. *ChemSusChem*, **2014**, 7, 670-89	8.3	128
216	Hard‐Soft Carbon Composite Anodes with Synergistic Sodium Storage Performance. *Advanced Functional Materials*, **2019**, 29, 1901072	15.6	125
215	Hydrothermal carbon spheres containing silicon nanoparticles: synthesis and lithium storage performance. *Chemical Communications*, **2008**, 3759-61	5.8	124
214	Original design of nitrogen-doped carbon aerogels from sustainable precursors: application as metal-free oxygen reduction catalysts. *Green Chemistry*, **2013**, 15, 2514	10	123
213	Carbon-Based Metal-Free Catalysts for Energy Storage and Environmental Remediation. *Advanced Materials*, **2019**, 31, e1806128	24	118
212	Porous carbon derived from rice husks as sustainable bioresources: insights into the role of micro-/mesoporous hierarchy in hosting active species for lithium‐sulphur batteries. *Green Chemistry*, **2016**, 18, 5169-5179	10	117
211	Ordered Carbohydrate-Derived Porous Carbons. *Chemistry of Materials*, **2011**, 23, 4882-4885	9.6	117
210	Hydrothermal nanocasting: Synthesis of hierarchically porous carbon monoliths and their application in lithium‐sulfur batteries. *Carbon*, **2013**, 61, 245-253	10.4	115
209	Renewable nitrogen-doped hydrothermal carbons derived from microalgae. *ChemSusChem*, **2012**, 5, 1836-40	8.3	108
208	One-step hydrothermal synthesis of nitrogen-doped nanocarbons: albumine directing the carbonization of glucose. *ChemSusChem*, **2010**, 3, 246-53	8.3	107
207	Hierarchical porous carbonaceous materials via ionothermal carbonization of carbohydrates. *Journal of Materials Chemistry*, **2011**, 21, 7434		106
206	Carbon aerogels from bacterial nanocellulose as anodes for lithium ion batteries. *RSC Advances*, **2014**, 4, 17549	3.7	105
205	Regulating Pore Structure of Hierarchical Porous Waste Cork-Derived Hard Carbon Anode for Enhanced Na Storage Performance. *Advanced Energy Materials*, **2019**, 9, 1902852	21.8	102
204	Towards effective small scale microbial fuel cells for energy generation from urine. *Electrochimica Acta*, **2016**, 192, 89-98	6.7	99

203	Solvothermal carbon-doped TiO2 photocatalyst for the enhanced methylene blue degradation under visible light. *Applied Catalysis A: General*, **2010**, 390, 175-182	5.1	99
202	Versatile Cellulose-Based Carbon Aerogel for the Removal of Both Cationic and Anionic Metal Contaminants from Water. *ACS Applied Materials & Interfaces*, **2015**, 7, 25875-83	9.5	97
201	Meso- and microporous soft templated hydrothermal carbons for dye removal from water. *Green Chemistry*, **2016**, 18, 1137-1146	10	97
200	Hydrothermal synthesis of imidazole functionalized carbon spheres and their application in catalysis. *Catalysis Today*, **2010**, 150, 115-118	5.3	91
199	Hierarchically Imprinted Stationary Phases: Mesoporous Polymer Beads Containing Surface-Confined Binding Sites for Adenine. *Chemistry of Materials*, **2002**, 14, 21-23	9.6	87
198	From Waste to Wealth: From Kraft Lignin to Free-standing Supercapacitors. *Carbon*, **2019**, 145, 470-480	10.4	87
197	Structural Insights on Nitrogen-Containing Hydrothermal Carbon Using Solid-State Magic Angle Spinning 13C and 15N Nuclear Magnetic Resonance. *Journal of Physical Chemistry C*, **2011**, 115, 8976-8982	3.8	85
196	Synthesis and evaluation of new propazine-imprinted polymer formats for use as stationary phases in liquid chromatography. *Analytica Chimica Acta*, **2005**, 542, 38-46	6.6	85
195	Structural and Morphological Changes in Kraft Lignin during Hydrothermal Carbonization. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 2737-2745	8.3	83
194	Polypyrrole-derived mesoporous nitrogen-doped carbons with intrinsic catalytic activity in the oxygen reduction reaction. *RSC Advances*, **2013**, 3, 9904	3.7	82
193	Structure and solvents effects on the optical properties of sugar-derived carbon nanodots. *Scientific Reports*, **2018**, 8, 6559	4.9	81
192	Ordered mesoporous carbons from lignin: a new class of biobased electrodes for supercapacitors. *Green Chemistry*, **2019**, 21, 550-559	10	79
191	Effect of Nitrogen Doping on the CO2 Adsorption Behavior in Nanoporous Carbon Structures: A Molecular Simulation Study. *Journal of Physical Chemistry C*, **2015**, 119, 22310-22321	3.8	78
190	LiFePO4 mesocrystals for lithium-ion batteries. *Small*, **2011**, 7, 1127-35	11	78
189	Graphene/nitrogen-doped porous carbon sandwiches for the metal-free oxygen reduction reaction: conductivity versus active sites. *Journal of Materials Chemistry A*, **2016**, 4, 12658-12666	13	76
188	Esterification of levulinic acid into ethyl levulinate catalysed by sulfonated hydrothermal carbons. *Chinese Journal of Catalysis*, **2014**, 35, 929-936	11.3	75
187	A Review of Advanced Energy Materials for Magnesium–Sulfur Batteries. *Energy and Environmental Materials*, **2018**, 1, 100-112	13	74
186	Soy protein directed hydrothermal synthesis of porous carbon aerogels for electrocatalytic oxygen reduction. *Carbon*, **2016**, 96, 622-630	10.4	73

185	Hierarchical Imprinting Using Crude Solid Phase Peptide Synthesis Products as Templates. *Chemistry of Materials*, **2003**, 15, 822-824	9.6	73
184	Porous carbohydrate-based materials via hard templating. *ChemSusChem*, **2010**, 3, 188-94	8.3	72
183	A revised mechanistic model for sodium insertion in hard carbons. *Energy and Environmental Science* , **2020**, 13, 3469-3479	35.4	70
182	Hard carbon derived from rice husk as low cost negative electrodes in Na-ion batteries. *Journal of Energy Chemistry*, **2019**, 29, 17-22	12	70
181	High Performance N-Doped Carbon Electrodes Obtained via Hydrothermal Carbonization of Macroalgae for Supercapacitor Applications. *ChemElectroChem*, **2018**, 5, 2686-2693	4.3	67
180	Template Synthesis of Carbonaceous Tubular Nanostructures with Tunable Surface Properties. *Chemistry of Materials*, **2010**, 22, 6590-6597	9.6	67
179	Enhancing Visible-Light Hydrogen Evolution Performance of Crystalline Carbon Nitride by Defect Engineering. *ChemSusChem*, **2019**, 12, 3257-3262	8.3	66
178	Direct methane oxidation over Pt-modified nitrogen-doped carbons. *Chemical Communications*, **2013**, 49, 240-2	5.8	65
177	Ein Si@SiOx/C-Nanokomposit als Anodenmaterial f□ Lithiumionenbatterien mit hoher Speicherleistung. *Angewandte Chemie*, **2008**, 120, 1669-1673	3.6	65
176	Characterization of biomass and its derived char using 13C-solid state nuclear magnetic resonance. *Green Chemistry*, **2014**, 16, 4839-4869	10	64
175	Free-standing supercapacitors from Kraft lignin nanofibers with remarkable volumetric energy density. *Chemical Science*, **2019**, 10, 2980-2988	9.4	60
174	Rational approach to guest confinement inside MOF cavities for low-temperature catalysis. *Nature Communications*, **2019**, 10, 1340	17.4	59
173	Recent advances in hydrothermal carbonisation: from tailored carbon materials and biochemicals to applications and bioenergy. *Green Chemistry*, **2020**, 22, 4747-4800	10	58
172	Chromatographic comparison of bupivacaine imprinted polymers prepared in crushed monolith, microsphere, silica-based composite and capillary monolith formats. *Journal of Chromatography A*, **2007**, 1160, 215-26	4.5	56
171	3D Carbon Materials for Efficient Oxygen and Hydrogen Electrocatalysis. *Advanced Energy Materials* , **2020**, 10, 1902494	21.8	56
170	Recent progress on biomass-derived ecomaterials toward advanced rechargeable lithium batteries. *EcoMat*, **2020**, 2, e12019	9.4	55
169	Low-Cost Chitosan-Derived N-Doped Carbons Boost Electrocatalytic Activity of Multiwall Carbon Nanotubes. *Advanced Functional Materials*, **2018**, 28, 1707284	15.6	55
168	All-Cellulose-Based Quasi-Solid-State Sodium-Ion Hybrid Capacitors Enabled by Structural Hierarchy. *Advanced Functional Materials*, **2019**, 29, 1903895	15.6	55

167	Activated carbons with high nitrogen content by a combination of hydrothermal carbonization with activation. *Microporous and Mesoporous Materials*, **2016**, 226, 125-132	5.3	53
166	Peptide recognition via hierarchical imprinting. *Analytical and Bioanalytical Chemistry*, **2004**, 378, 1913-21	4.4	53
165	In Situ Synthesis of Fluorescent Carbon Dots/Polyelectrolyte Nanocomposite Microcapsules with Reduced Permeability and Ultrasound Sensitivity. *ACS Nano*, **2016**, 10, 9608-9615	16.7	53
164	Flexible Coral-like Carbon Nanoarchitectures via a Dual Block Copolymer□atex Templating Approach. *Chemistry of Materials*, **2013**, 25, 4781-4790	9.6	52
163	Supercapacitive Behavior of Two Glucose-Derived Microporous Carbons: Direct Pyrolysis versus Hydrothermal Carbonization. *ChemElectroChem*, **2014**, 1, 2138-2145	4.3	50
162	Mesoporous Carbon Hollow Spheres as Efficient Electrocatalysts for Oxygen Reduction to Hydrogen Peroxide in Neutral Electrolytes. *ACS Catalysis*, **2020**, 10, 7434-7442	13.1	48
161	Emulsion-templated macroporous carbons synthesized by hydrothermal carbonization and their application for the enzymatic oxidation of glucose. *ChemSusChem*, **2013**, 6, 701-10	8.3	48
160	Sustainable nitrogen-doped carbon latexes with high electrical and thermal conductivity. *Polymer*, **2010**, 51, 4540-4546	3.9	46
159	Biomass-derived electrodes for flexible supercapacitors. *Current Opinion in Green and Sustainable Chemistry*, **2018**, 9, 18-24	7.9	46
158	Oxygenophilic ionic liquids promote the oxygen reduction reaction in Pt-free carbon electrocatalysts. *Materials Horizons*, **2017**, 4, 895-899	14.4	45
157	Photocarving nitrogen vacancies in a polymeric carbon nitride for metal-free oxygen synthesis. *Applied Catalysis B: Environmental*, **2019**, 256, 117794	21.8	44
156	Carbon-Nanodot Solar Cells from Renewable Precursors. *ChemSusChem*, **2017**, 10, 1004-1013	8.3	42
155	Hydrothermal Carbonization of Digestate in the Presence of Zeolite: Process Efficiency and Composite Properties. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 2967-2974	8.3	42
154	Halloysite-derived nitrogen doped carbon electrocatalysts for anion exchange membrane fuel cells. *Journal of Power Sources*, **2017**, 372, 82-90	8.9	42
153	Thermoresponsive polymers in liquid chromatography. *Analytical Methods*, **2012**, 4, 34-43	3.2	42
152	PEGylated Chromatography: Efficient Bioseparation on Silica Monoliths Grafted with Smart Biocompatible Polymers. *ACS Applied Materials & Interfaces*, **2009**, 1, 1869-72	9.5	41
151	Local Platinum Environments in a Solid Analogue of the Molecular Periana Catalyst. *ACS Catalysis*, **2016**, 6, 2332-2340	13.1	40
150	Progress and Perspectives in Photo- and Electrochemical-Oxidation of Biomass for Sustainable Chemicals and Hydrogen Production. *Advanced Energy Materials*,2101180	21.8	40

149	Synergistic relationship between the three-dimensional nanostructure and electrochemical performance in biocarbon supercapacitor electrode materials. *Sustainable Energy and Fuels*, **2018**, 2, 772-785	5.8	39
148	Unveiling the role of hydrothermal carbon dots as anodes in sodium-ion batteries with ultrahigh initial coulombic efficiency. *Journal of Materials Chemistry A*, **2019**, 7, 27567-27575	13	39
147	Engineering the Interface of Carbon Electrocatalysts at the Triple Point for Enhanced Oxygen Reduction Reaction. *Chemistry - A European Journal*, **2018**, 24, 18374-18384	4.8	39
146	Heat Diffusion-Induced Gradient Energy Level in Multishell Bisulfides for Highly Efficient Photocatalytic Hydrogen Production. *Advanced Energy Materials*, **2020**, 10, 2001575	21.8	38
145	Understanding the Hydrophilicity and Water Adsorption Behavior of Nanoporous Nitrogen-Doped Carbons. *Journal of Physical Chemistry C*, **2016**, 120, 18167-18179	3.8	38
144	Sulphur-doped ordered mesoporous carbon with enhanced electrocatalytic activity for the oxygen reduction reaction. *Journal of Energy Chemistry*, **2016**, 25, 566-570	12	38
143	Hard carbons for sodium-ion batteries and beyond. *Progress in Energy*, **2020**, 2, 042002	7.7	38
142	Photoelectrochemical response of carbon dots (CDs) derived from chitosan and their use in electrochemical imaging. *Materials Horizons*, **2018**, 5, 423-428	14.4	37
141	An improved grafting technique for producing imprinted thin film composite beads. *Polymer Chemistry*, **2012**, 3, 1033	4.9	37
140	Operando visualisation of battery chemistry in a sodium-ion battery by Na magnetic resonance imaging. *Nature Communications*, **2020**, 11, 2083	17.4	36
139	Investigating the Effect of Reaction Time on Carbon Dot Formation, Structure, and Optical Properties. *ACS Omega*, **2019**, 4, 21658-21665	3.9	36
138	Hydrothermal synthesis of highly porous carbon monoliths from carbohydrates and phloroglucinol. *RSC Advances*, **2013**, 3, 17088	3.7	35
137	Coal from carbohydrates: The chimie douce of carbon. *Comptes Rendus Chimie*, **2010**, 13, 167-173	2.7	35
136	Nitrogen-Doped Carbon Dots/TiO2 Nanoparticle Composites for Photoelectrochemical Water Oxidation. *ACS Applied Nano Materials*, **2020**, 3, 3371-3381	5.6	34
135	Electrochemical behaviour of activated carbons obtained via hydrothermal carbonization. *Journal of Materials Chemistry A*, **2015**, 3, 15558-15567	13	33
134	Monitoring Hydrogen Evolution Reaction Intermediates of Transition Metal Dichalcogenides via Operando Raman Spectroscopy. *Advanced Functional Materials*, **2020**, 30, 2003035	15.6	33
133	Disordered protein-graphene oxide co-assembly and supramolecular biofabrication of functional fluidic devices. *Nature Communications*, **2020**, 11, 1182	17.4	32
132	2021 roadmap on lithium sulfur batteries. *JPhys Energy*, **2021**, 3, 031501	4.9	32

131	Se-modified polymeric carbon nitride nanosheets with improved photocatalytic activities. *Journal of Catalysis*, **2019**, 375, 104-112	7.3	31
130	New insights into the electrochemical behaviour of porous carbon electrodes for supercapacitors. *Journal of Energy Storage*, **2018**, 19, 337-347	7.8	30
129	Continuous hydrothermal flow synthesis of blue-luminescent, excitation-independent nitrogen-doped carbon quantum dots as nanosensors. *Journal of Materials Chemistry A*, **2020**, 8, 3270-3279	13	30
128	Thin thermo-responsive polymer films onto the pore system of chromatographic beads via reversible addition fragmentation chain transfer polymerization. *New Journal of Chemistry*, **2008**, 32, 1409	3.6	28
127	Thermo-responsive monolithic materials. *Journal of Chromatography A*, **2008**, 1203, 160-7	4.5	28
126	Electrochemical oxygen reduction for H2O2 production: catalysts, pH effects and mechanisms. *Journal of Materials Chemistry A*, **2020**, 8, 24996-25016	13	28
125	The Influence of Heteroatom Dopants Nitrogen, Boron, Sulfur, and Phosphorus on Carbon Electrocatalysts for the Oxygen Reduction Reaction. *ChemPlusChem*, **2019**, 84, 457-464	2.8	27
124	Wet and dry? Influence of hydrothermal carbonization on the pyrolysis of spent grains. *Journal of Cleaner Production*, **2020**, 260, 121101	10.3	27
123	Carbohydrate-Derived Nanoarchitectures: On a Synergistic Effect Toward an Improved Performance in Lithium Sulfur Batteries. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 126-129	8.3	27
122	Freestanding Non-Precious Metal Electrocatalysts for Oxygen Evolution and Reduction Reactions. *ChemElectroChem*, **2018**, 5, 1786-1804	4.3	26
121	Mesoporous graphite nanoflakes via ionothermal carbonization of fructose and their use in dye removal. *RSC Advances*, **2014**, 4, 37423-37430	3.7	26
120	Boosting the Oxygen Reduction Electrocatalytic Performance of Nonprecious Metal Nanocarbons via Triple Boundary Engineering Using Protic Ionic Liquids. *ACS Applied Materials & Interfaces*, **2019**, 11, 11298-11305	9.5	26
119	Porous carbon nanosheets from biological nucleobase precursor as efficient pH-independent oxygen reduction electrocatalyst. *Carbon*, **2020**, 156, 179-186	10.4	26
118	Pt single-atoms supported on nitrogen-doped carbon dots for highly efficient photocatalytic hydrogen generation. *Journal of Materials Chemistry A*, **2020**, 8, 14690-14696	13	25
117	Elucidating the Effect of Planar Graphitic Layers and Cylindrical Pores on the Storage and Diffusion of Li, Na, and K in Carbon Materials. *Advanced Functional Materials*, **2020**, 30, 1908209	15.6	25
116	Carbon Dots in Solar-to-Hydrogen Conversion. *Trends in Chemistry*, **2020**, 2, 623-637	14.8	24
115	2021 roadmap for sodium-ion batteries. *JPhys Energy*, **2021**, 3, 031503	4.9	24
114	Green and sustainable zero-waste conversion of water hyacinth () into superior magnetic carbon composite adsorbents and supercapacitor electrodes.. *RSC Advances*, **2019**, 9, 24248-24258	3.7	23

113	Methane conversion on Pt–Ru nanoparticles alloy supported on hydrothermal carbon. *Applied Catalysis A: General*, **2010**, 386, 140-146	5.1	23
112	High density graphene–carbon nanosphere films for capacitive energy storage. *Journal of Materials Chemistry A*, **2019**, 7, 6126-6133	13	22
111	Fractionation by Sequential Antisolvent Precipitation of Grass, Softwood, and Hardwood Lignins Isolated Using Low-Cost Ionic Liquids and Water. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3751-3761	8.3	22
110	Hydrothermal synthesis of SnO2 and SnO2@C nanorods and their application as anode materials in lithium-ion batteries. *RSC Advances*, **2013**, 3, 17281	3.7	22
109	Facet Engineering to Regulate Surface States of Topological Crystalline Insulator Bismuth Rhombic Dodecahedrons for Highly Energy Efficient Electrochemical CO Reduction. *Advanced Materials*, **2021**, 33, e2008373	24	22
108	Cobalt Nitride Anchored on Nitrogen-Rich Carbons for Efficient Carbon Dioxide Reduction with Visible Light. *Applied Catalysis B: Environmental*, **2021**, 280, 119454	21.8	22
107	Sustainable metal-free carbogels as oxygen reduction electrocatalysts. *Journal of Materials Chemistry A*, **2017**, 5, 16336-16343	13	21
106	Salt Templating with Pore Padding: Hierarchical Pore Tailoring towards Functionalised Porous Carbons. *ChemSusChem*, **2017**, 10, 199-209	8.3	21
105	Correlating electrochemical impedance with hierarchical structure for porous carbon-based supercapacitors using a truncated transmission line model. *Electrochimica Acta*, **2018**, 284, 597-608	6.7	21
104	Sodium Storage Mechanism Investigations through Structural Changes in Hard Carbons. *ACS Applied Energy Materials*, **2020**, 3, 9918-9927	6.1	21
103	Efficient Continuous Hydrothermal Flow Synthesis of Carbon Quantum Dots from a Targeted Biomass Precursor for On–Off Metal Ions Nanosensing. *ACS Sustainable Chemistry and Engineering*, **2021**, 9, 2559-2569	8.3	21
102	Sustainable Batteries—Quo Vadis?. *Advanced Energy Materials*, **2021**, 11, 2003700	21.8	20
101	Bio-inspired carbon electro-catalysts for the oxygen reduction reaction. *Journal of Energy Chemistry* , **2016**, 25, 228-235	12	19
100	Manipulating the Optical Properties of Carbon Dots by Fine-Tuning their Structural Features. *ChemSusChem*, **2019**, 12, 4432-4441	8.3	19
99	Carbon-based ionogels: tuning the properties of the ionic liquid via carbon-ionic liquid interaction. *Physical Chemistry Chemical Physics*, **2012**, 14, 5992-7	3.6	19
98	Synthesis of mesoporous carbon/iron carbide hybrids with unusually high surface areas from the ionic liquid precursor [Bmim][FeCl4]. *CrystEngComm*, **2012**, 14, 4946	3.3	19
97	Synthesis of Microspherical LiFePO4–Carbon Composites for Lithium-Ion Batteries. *Nanomaterials*, **2013**, 3, 443-452	5.4	19
96	Ammonia Gas Sensor Response of a Vertical Zinc Oxide Nanorod-Gold Junction Diode at Room Temperature. *ACS Sensors*, **2020**, 5, 3568-3575	9.2	19

95	Homogenous metallic deposition regulated by defect-rich skeletons for sodium metal batteries. *Energy and Environmental Science*,	35.4	19
94	Charging and Discharging Behavior of Solvothermal LiFePO4 Cathode Material Investigated by Combined EELS/NEXAFS Study. *Chemistry of Materials*, **2014**, 26, 1040-1047	9.6	18
93	Microcellular Electrode Material for Microbial Bioelectrochemical Systems Synthesized by Hydrothermal Carbonization of Biomass Derived Precursors. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 2508-2516	8.3	17
92	Local mobility in electrochemically inactive sodium in hard carbon anodes after the first cycle. *Journal of Materials Chemistry A*, **2020**, 8, 743-749	13	17
91	High-Density Lignin-Derived Carbon Nanofiber Supercapacitors with Enhanced Volumetric Energy Density. *Advanced Science*, **2021**, 8, e2100016	13.6	17
90	Carbon-Dot-Enhanced Graphene Field-Effect Transistors for Ultrasensitive Detection of Exosomes. *ACS Applied Materials & Interfaces*, **2021**, 13, 7854-7864	9.5	17
89	Homogenous Meets Heterogenous and Electro-Catalysis: Iron-Nitrogen Molecular Complexes within Carbon Materials for Catalytic Applications. *ChemCatChem*, **2019**, 11, 3602-3625	5.2	16
88	Hydrothermal Carbonization of Biomass **2015**, 325-352		15
87	Nitrogen-doped Hydrothermal Carbons. *Green*, **2012**, 2, 25-40		14
86	Electrospinning as a route to advanced carbon fibre materials for selected low-temperature electrochemical devices: A review. *Journal of Energy Chemistry*, **2021**, 59, 492-529	12	14
85	Salt melt synthesis of curved nitrogen-doped carbon nanostructures: ORR kinetics boost. *Applied Surface Science*, **2018**, 435, 543-551	6.7	14
84	Photochemical Construction of Nitrogen-Containing Nanocarbons for Carbon Dioxide Photoreduction. *ACS Catalysis*, **2020**, 10, 12706-12715	13.1	13
83	Soft templating production of porous carbon adsorbents for CO2 and H2S capture. *Carbon*, **2020**, 169, 193-204	10.4	13
82	Hardwood versus softwood Kraft lignin precursor-product relationships in the manufacture of porous carbon nanofibers for supercapacitors. *Journal of Materials Chemistry A*, **2020**, 8, 23543-23554	13	13
81	Free radicals formation on thermally decomposed biomass. *Fuel*, **2019**, 255, 115802	7.1	12
80	Ice-Templated, Sustainable Carbon Aerogels with Hierarchically Tailored Channels for Sodium- and Potassium-Ion Batteries. *Advanced Functional Materials*,2110862	15.6	12
79	Designer uniform Li plating/stripping through lithium cobalt alloying hierarchical scaffolds for scalable high-performance lithium-metal anodes. *Journal of Energy Chemistry*, **2021**, 52, 385-392	12	12
78	The impact of having an oxygen-rich microporous surface in carbon electrodes for high-power aqueous supercapacitors. *Journal of Energy Chemistry*, **2021**, 53, 36-48	12	12

77	Iron, Nitrogen Co-Doped Carbon Spheres as Low Cost, Scalable Electrocatalysts for the Oxygen Reduction Reaction. *Advanced Functional Materials*,2102974	15.6	12
76	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. *Advanced Energy Materials*, **2022**, 12, 2102715	21.8	12
75	Graphene-reinforced silicon oxycarbide composites prepared by phase transfer. *Carbon*, **2018**, 139, 813-823	10.4	11
74	Integration of supercapacitors into printed circuit boards. *Journal of Energy Storage*, **2018**, 19, 28-34	7.8	11
73	Charge/discharge and cycling performance of flexible carbon paper electrodes in a regenerative hydrogen/vanadium fuel cell. *International Journal of Hydrogen Energy*, **2019**, 44, 30093-30107	6.7	11
72	Aus Biomasse hergestellte Kohlenstoff-Quantenpunkt-Sensibilisatoren f□nanostrukturierte Festk□per-Solarzellen. *Angewandte Chemie*, **2015**, 127, 4544-4550	3.6	11
71	Atomic Arrangement Modulation in CoFe Nanoparticles Encapsulated in N-Doped Carbon Nanostructures for Efficient Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2021**, 13, 3771-3781	9.5	11
70	Oxygen Electrocatalysis: Topological Defects in Metal-Free Nanocarbon for Oxygen Electrocatalysis (Adv. Mater. 32/2016). *Advanced Materials*, **2016**, 28, 7030-7030	24	10
69	Biosourced nitrogen-doped microcellular carbon monoliths. *ChemSusChem*, **2014**, 7, 397-401	8.3	10
68	Hydrothermal Carbons: Synthesis, Characterization, and Applications **2012**, 351-399		10
67	Correlating Local Structure and Sodium Storage in Hard Carbon Anodes: Insights from Pair Distribution Function Analysis and Solid-State NMR. *Journal of the American Chemical Society*, **2021**, 143, 14274-14286	16.4	10
66	Photocatalytic activity of 2D nanosheets of ferroelectric Dion□acobson compounds. *Journal of Materials Chemistry A*, **2020**, 8, 6564-6568	13	9
65	Biomass-Derived Nitrogen-Doped Carbon Aerogel Counter Electrodes for Dye Sensitized Solar Cells. *Materials*, **2018**, 11,	3.5	9
64	Environmental Applications of Hydrothermal Carbonization Technology: Biochar Production, Carbon Sequestration, and Waste Conversion **2013**, 295-340		9
63	Facile polymer functionalization of hydrothermal-carbonization-derived carbons. *Macromolecular Rapid Communications*, **2013**, 34, 1080-4	4.8	9
62	Ultrafast synthesis of hard carbon anodes for sodium-ion batteries. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	9
61	Disordered carbon anodes for Na-ion batteries□uo vadis?. *Science China Chemistry*, **2021**, 64, 1679	7.9	9
60	Surface Interactions during the Removal of Emerging Contaminants by Hydrochar-Based Adsorbents. *Molecules*, **2020**, 25,	4.8	8

59	Thermo-responsive columns for HPLC: The effect of chromatographic support and polymer molecular weight on the performance of the columns. *Analytical Methods*, **2009**, 1, 52-58	3.2	8
58	Screening Heteroatom Configurations for Reversible Sloping Capacity Promises High-Power Na-Ion Batteries.. *Angewandte Chemie - International Edition*, **2022**,	16.4	8
57	Hybrid Redox Flow Cells with Enhanced Electrochemical Performance via Binderless and Electrophoretically Deposited Nitrogen-Doped Graphene on Carbon Paper Electrodes. *ACS Applied Materials & Interfaces*, **2020**,	9.5	8
56	Preparation and properties of biomorphic potassium-based geopolymer (KGP)-biocarbon (CB) composite. *Ceramics International*, **2018**, 44, 12957-12964	5.1	7
55	Towards a More Sustainable Lithium-Ion Battery Future: Recycling LIBs from Electric Vehicles. *Batteries and Supercaps*, **2020**, 3, 1126-1136	5.6	7
54	A diverse view of science to catalyse change. *Nature Chemistry*, **2020**, 12, 773-776	17.6	7
53	Investigating the effect of edge and basal plane surface functionalisation of carbonaceous anodes for alkali metal (Li/Na/K) ion batteries. *Carbon*, **2021**, 177, 226-243	10.4	7
52	Porous Biomass-Derived Carbons: Activated Carbons **2013**, 75-100		6
51	Connecting carbon porosity with dispersibility and friability. *Carbon*, **2017**, 112, 117-129	10.4	6
50	Elucidation of the Solid Electrolyte Interphase Formation Mechanism in Micro-Mesoporous Hard-Carbon Anodes. *Advanced Materials Interfaces*,2101267	4.6	6
49	Strategies for High Energy Density Dual-Ion Batteries Using Carbon-Based Cathodes. *Advanced Energy and Sustainability Research*,2100074	1.6	6
48	Investigating the effects of activating agent morphology on the porosity and related capacitance of nanoporous carbons. *CrystEngComm*, **2020**, 22, 1560-1567	3.3	5
47	Solvation of NaPF6 in Diglyme Solution for Battery Electrolytes. *Batteries and Supercaps*, **2020**, 3, 1306-1310	5.6	5
46	Towards a More Sustainable Lithium-Ion Battery Future: Recycling LIBs from Electric Vehicles. *Batteries and Supercaps*, **2020**, 3, 1125-1125	5.6	5
45	Hydrothermal Conversion of Spent Sugar Beets into High-Value Platform Molecules. *Molecules*, **2020**, 25,	4.8	5
44	Photoelectrochemical imaging system with high spatiotemporal resolution for visualizing dynamic cellular responses. *Biosensors and Bioelectronics*, **2021**, 180, 113121	11.8	5
43	Towards a mechanistic understanding of particle shrinkage during biomass pyrolysis via synchrotron X-ray microtomography and in-situ radiography. *Scientific Reports*, **2021**, 11, 2656	4.9	5
42	Carbon Composite Anodes with Tunable Microstructures for Potassium-Ion Batteries. *Batteries and Supercaps*, **2021**, 4, 663-670	5.6	5

41	The Role of Hydrothermal Carbonization in Sustainable Sodium-Ion Battery Anodes. *Advanced Energy Materials*,2200208	21.8	5
40	Electrocatalysis: 3D Carbon Materials for Efficient Oxygen and Hydrogen Electrocatalysis (Adv. Energy Mater. 11/2020). *Advanced Energy Materials*, **2020**, 10, 2070047	21.8	4
39	Characterization of Hydrothermal Carbonization Materials **2013**, 151-211		3
38	Applications of Hydrothermal Carbon in Modern Nanotechnology **2013**, 213-294		3
37	Scale-Up in Hydrothermal Carbonization **2013**, 341-353		3
36	Bio-based materials: general discussion. *Faraday Discussions*, **2017**, 202, 121-139	3.6	3
35	Beyond Li-ion batteries: performance, materials diversification, and sustainability. *One Earth*, **2022**, 5, 207-211	8.1	3
34	Sodium-Ion Batteries: Hard/Soft Carbon Composite Anodes with Synergistic Sodium Storage Performance (Adv. Funct. Mater. 24/2019). *Advanced Functional Materials*, **2019**, 29, 1970164	15.6	2
33	Feedstocks and analysis: general discussion. *Faraday Discussions*, **2017**, 202, 497-519	3.6	2
32	7. Sustainable carbon hybrid materials made by hydrothermal carbonization and their use in energy applications **2014**,		2
31	Enhancement of the electrocatalytic activity for the oxygen reduction reaction of boron-doped reduced graphene oxide via ultrasonic treatment. *International Journal of Hydrogen Energy*, **2021**, 47, 5462-5462	6.7	2
30	The role of carbon dots - derived underlayer in hematite photoanodes. *Nanoscale*, **2020**, 12, 20220-20229	7.7	2
29	A Diverse View of Science to Catalyse Change. *Angewandte Chemie - International Edition*, **2020**, 59, 18306-18310	16.1	2
28	Biomass derived carbon materials: Synthesis and application towards CO2 and H2S adsorption. *Nano Select*,	3.1	2
27	Photoelectrochemical Imaging Using Carbon Dots (CDs) Derived from Chitosan. *Proceedings (mdpi)*, **2018**, 2, 778	0.3	2
26	Hydrothermal Carbon Materials for the Oxygen Reduction Reaction **2018**, 369-401		2
25	Activated Carbon from Corncobs Doped with RuO2 as Biobased Electrode Material. *Electronic Materials*, **2021**, 2, 324-343	0.8	2
24	Thermal treatment versus hydrothermal carbonization: How to synthesize nitrogen-enriched carbon materials for energy storage applications?. *International Journal of Energy Research*,	4.5	2

23	A life cycle assessment of hard carbon anodes for sodium-ion batteries. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20200340	3	2
22	Influence of Reaction Conditions on Hydrothermal Carbonization of Fructose. *ChemSusChem*, **2021**, 14, 5271-5282	8.3	2
21	Porous Hydrothermal Carbons **2013**, 37-73		1
20	Chemical Modification of Hydrothermal Carbon Materials **2013**, 125-149		1
19	Metal coordination in CN-like materials towards dual atom catalysts for oxygen reduction.. *Journal of Materials Chemistry A*, **2022**, 10, 6023-6030	13	1
18	A diverse view of science to catalyse change: valuing diversity leads to scientific excellence, the progress of science and, most importantly, it is simply the right thing to do. We must value diversity not only in words, but also in actions. *Canadian Journal of Chemistry*, **2020**, 98, 597-600	0.9	1
17	Monolithic Carbon Spherogels as Freestanding Electrodes for Supercapacitors. *ACS Applied Energy Materials*, **2021**, 4, 11183-11193	6.1	1
16	Engineering the Electrochemical Interface of Oxygen Reduction Electrocatalysts with Ionic Liquids: A Review. *Advanced Energy and Sustainability Research*, **2021**, 2, 2000062	1.6	1
15	Achieving high volumetric EDLC carbons via hydrothermal carbonization and cyclic activation. *JPhys Energy*, **2020**, 2, 025005	4.9	1
14	A diverse view of science to catalyse change. *Croatica Chemica Acta*, **2020**, 93, 77-81	0.8	1
13	Metal free-covalent triazine frameworks as oxygen reduction reaction catalysts structure–electrochemical activity relationship. *Catalysis Science and Technology*, **2021**, 11, 6191-6204	5.5	1
12	Engineering the Electrochemical Interface of Oxygen Reduction Electrocatalysts with Ionic Liquids: A Review. *Advanced Energy and Sustainability Research*, **2021**, 2, 2170003	1.6	1
11	A Diverse View of Science to Catalyse Change. *Angewandte Chemie*, **2020**, 132, 18462-18466	3.6	0
10	A Comparative Techno-Economic and Lifecycle Analysis of Biomass-Derived Anode Materials for Lithium- and Sodium-Ion Batteries. *Advanced Sustainable Systems*,2200047	5.9	0
9	Hydrothermal Nanocarbons **2014**, 351-406		
8	Green Carbon **2013**, 1-36		
7	Hydrothermally Synthesized Carbonaceous Nanocomposites **2013**, 101-124		
6	Green Carbon Nanomaterials **2013**, 7-58		

5	Proteins Induced Formation of Hydrothermal Nitrogen Doped Carbons. *Materials Research Society Symposia Proceedings*, **2009**, 1219, 4051	
4	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications (Adv. Energy Mater. 3/2022). *Advanced Energy Materials*, **2022**, 12, 2270010	21.8
3	Bioderived and bioinspired sustainable materials. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20200329	3
2	Bioderived and bioinspired sustainable materials (vol 2). *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20210214	3
1	Elucidation of the Solid Electrolyte Interphase Formation Mechanism in Micro-Mesoporous Hard-Carbon Anodes (Adv. Mater. Interfaces 8/2022). *Advanced Materials Interfaces*, **2022**, 9, 2270040	4.6