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KOH activation of carbon-based materials for energy storage

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1921	Synthesis, characterization, and hydrogen storage capacities of hierarchical porous carbide derived carbon monolith. <i>Journal of Materials Chemistry</i> , 2012 , 22, 23893		48
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1913	High rate performance activated carbons prepared from ginkgo shells for electrochemical supercapacitors. 2013 , 56, 146-154		159
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1908	Preparation of Chitosan-Based Activated Carbon and Its Electrochemical Performance for EDLC. 2013 , 160, H321-H326		19
1907	Tailoring porosity in carbon nanospheres for lithium-sulfur battery cathodes. 2013 , 7, 10920-30		391

1906	Sulfur/activated-conductive carbon black composites as cathode materials for lithium/sulfur battery. 2013 , 240, 598-605	83
1905	Easy synthesis of a high surface area, hierarchical porous carbon for high-performance supercapacitors. 2013 , 3, 17500	40
1904	Synthesis and capacitive performance of two-dimensional sandwich-like graphene/nitrogen-doped carbon nanoparticle composites with tunable textural parameters and nitrogen content. 2013 , 37, 4148	11
1903	Moderating black powder chemistry for the synthesis of doped and highly porous graphene nanoplatelets and their use in electrocatalysis. 2013 , 25, 6284-90	209
1902	Hierarchically porous materials via assembly of nitrogen-rich polymer nanoparticles for efficient and selective CO ₂ capture. 2013 , 1, 14862	52
1901	Microstructure regulation of super activated carbon from biomass source corncob with enhanced hydrogen uptake. 2013 , 38, 9243-9250	63
1900	Sulfur embedded in metal organic framework-derived hierarchically porous carbon nanoplates for high performance lithium-sulfur battery. 2013 , 1, 4490	245
1899	Imine-linked polymer-derived nitrogen-doped microporous carbons with excellent CO ₂ capture properties. 2013 , 5, 3160-7	144
1898	Carbon nanotubes coated with a nitrogen-doped carbon layer and its enhanced electrochemical capacitance. 2013 , 1, 7222	42
1897	Porous carbon-based materials for hydrogen storage: advancement and challenges. 2013 , 1, 9365	230
1896	Synthesis of hierarchical porous carbons for supercapacitors from coal tar pitch with nano-Fe ₂ O ₃ as template and activation agent coupled with KOH activation. 2013 , 1, 9440	149
1895	Embedding sulfur in MOF-derived microporous carbon polyhedrons for lithium-sulfur batteries. 2013 , 19, 10804-8	327
1894	Synthesis of functionalized 3D hierarchical porous carbon for high-performance supercapacitors. 2013 , 6, 2497	935
1893	Advanced porous carbon electrodes for electrochemical capacitors. 2013 , 1, 9395	141
1892	A covalent route for efficient surface modification of ordered mesoporous carbon as high performance microwave absorbers. 2013 , 5, 12502-11	109
1891	Activated carbons derived from coconut shells as high energy density cathode material for Li-ion capacitors. 2013 , 3, 3002	195
1890	Structure and Capacitive Performance of Porous Carbons Derived from Terephthalic Acid-Zinc Complex via a Template Carbonization Process. 2013 , 52, 16211-16219	9
1889	Synthesis and electromagnetic interference shielding effectiveness of ordered mesoporous carbon filled poly(methyl methacrylate) composite films. 2013 , 3, 23715	24

1888	Development and Environmental Applications of Activated Carbon Cloths. 2013 , 2013, 1-31	27
1887	Preparation of porous carbon materials by using coagulated polyamic acid precursor. 2014 , 22, 1050-1052	2
1886	Ion Intercalation into Graphitic Carbon with a Low Surface Area for High Energy Density Supercapacitors. 2014 , 161, A1486-A1494	22
1885	Efficient preparation of porous carbons from coal tar pitch for high performance supercapacitors. 2014 , 29, 493-502	21
1884	Hierarchical activated mesoporous phenolic-resin-based carbons for supercapacitors. 2014 , 9, 2789-97	20
1883	Nanoporous Activated Carbon Derived from Rice Husk for High Performance Supercapacitor. 2014 , 2014, 1-7	22
1882	Nanocasting hierarchical carbide-derived carbons in nanostructured opal assemblies for high-performance cathodes in lithium-sulfur batteries. 2014 , 8, 12130-40	74
1881	Three-dimensional graphitized carbon nanovesicles for high-performance supercapacitors based on ionic liquids. 2014 , 7, 777-84	24
1880	Heteroatom doped porous carbon derived from hair as an anode with high performance for lithium ion batteries. 2014 , 4, 63784-63791	44
1879	Cube-like Fe ₂ O ₃ supported on ordered multimodal porous carbon as high performance electrode material for supercapacitors. 2014 , 7, 3102-11	80
1878	Chemically activated fungi-based porous carbons for hydrogen storage. 2014 , 75, 372-380	83
1877	KOH-activated depleted fullerene soot for electrochemical double-layer capacitors. 2014 , 44, 309-316	18
1876	Rice husk-derived graphene with nano-sized domains and clean edges. 2014 , 10, 2766-70, 2740	130
1875	Activated carbon aerogels with high bimodal porosity for lithium/sulfur batteries. 2014 , 18, 545-551	19
1874	Nitrogen-doped porous carbons through KOH activation with superior performance in supercapacitors. 2014 , 68, 185-194	296
1873	Hollow Porous Carbon Fiber from Cotton with Nitrogen Doping. 2014 , 79, 284-289	21
1872	Nanoarchitected Graphene/CNT@Porous Carbon with Extraordinary Electrical Conductivity and Interconnected Micro/Mesopores for Lithium-Sulfur Batteries. 2014 , 24, 2772-2781	452
1871	Supercapacitors Based on Flexible Substrates: An Overview. 2014 , 2, 325-341	140

1870	A CVD route for the preparation of templated and activated carbons for gas storage applications using zeolitic imidazolate frameworks (ZIFs) as template. 2014 , 195, 258-265	25
1869	Nitrogen Enriched Porous Carbon Spheres: Attractive Materials for Supercapacitor Electrodes and CO ₂ Adsorption. 2014 , 26, 2820-2828	480
1868	Spillover enhanced hydrogen uptake of Pt/Pd doped corncob-derived activated carbon with ultra-high surface area at high pressure. 2014 , 39, 13643-13649	41
1867	Construction of high-energy-density supercapacitors from pine-cone-derived high-surface-area carbons. 2014 , 7, 1435-42	105
1866	Physical and chemical activation of reduced graphene oxide for enhanced adsorption and catalytic oxidation. 2014 , 6, 766-71	129
1865	Design of advanced porous graphene materials: from graphene nanomesh to 3D architectures. 2014 , 6, 1922-45	548
1864	Oriented and Interlinked Porous Carbon Nanosheets with an Extraordinary Capacitive Performance. 2014 , 26, 6896-6903	161
1863	Porosity modulation of activated ZIF-templated carbons via compaction for hydrogen and CO ₂ storage applications. 2014 , 2, 10960	38
1862	KOH self-templating synthesis of three-dimensional hierarchical porous carbon materials for high performance supercapacitors. 2014 , 2, 14844	141
1861	Nitrogen-enriched and hierarchically porous carbon macro-spheres Ideal for large-scale CO ₂ capture. 2014 , 2, 5481-5489	57
1860	Comparative study of n-dodecyl tetraethylene monoether lyotropic liquid crystals incorporated with graphene and graphene oxide. 2014 , 16, 20932-40	16
1859	Activated carbon with ultrahigh specific surface area synthesized from natural plant material for lithium-sulfur batteries. 2014 , 2, 15889-15896	161
1858	Tailoring porosity in carbon materials for supercapacitor applications. 2014 , 1, 157-168	235
1857	An efficient one-step condensation and activation strategy to synthesize porous carbons with optimal micropore sizes for highly selective CO ₂ adsorption. 2014 , 6, 4148-56	70
1856	Sustainable Conversion of Mixed Plastics into Porous Carbon Nanosheets with High Performances in Uptake of Carbon Dioxide and Storage of Hydrogen. 2014 , 2, 2837-2844	73
1855	Hierarchical porous carbon prepared by NaOH activation of nano-CaCO ₃ templated carbon for high rate supercapacitors. 2014 , 38, 5509-5514	29
1854	N-Doped carbon spheres with hierarchical micropore-nanosheet networks for high performance supercapacitors. 2014 , 50, 12091-4	86
1853	Nitrogen-containing nanoporous carbons with high pore volumes from 4-(4-nitrophenylazo)resorcinol by a Mg(OH) ₂ -assisted template carbonization method. 2014 , 2, 17586-17594	7

1852	Edge-enriched graphene quantum dots for enhanced photo-luminescence and supercapacitance. 2014 , 6, 11988-94	372
1851	High performance microspherical activated carbons for methane storage and landfill gas or biogas upgrade. 2014 , 2, 15337-15344	53
1850	Shape-controlled porous nanocarbons for high performance supercapacitors. 2014 , 2, 5236	47
1849	Oligomer-salt derived 3D, heavily nitrogen doped, porous carbon for Li-ion hybrid electrochemical capacitors application. 2014 , 80, 462-471	77
1848	Micro-mesoporous carbon spheres derived from carrageenan as electrode material for supercapacitors. 2014 , 268, 584-590	156
1847	Colossal pseudocapacitance in a high functionality high surface area carbon anode doubles the energy of an asymmetric supercapacitor. 2014 , 7, 1708-1718	320
1846	Poly(vinylidene chloride)-based carbon with ultrahigh microporosity and outstanding performance for CH ₄ and H ₂ storage and CO ₂ capture. 2014 , 6, 3703-11	93
1845	One-step preparation of ultrathin nitrogen-doped carbon nanosheets with ultrahigh pore volume for high-performance supercapacitors. 2014 , 2, 17297-17301	51
1844	Hydrogen storage in nanoporous materials. 2014 , 410-450	1
1843	From metal-organic framework to carbon: toward controlled hierarchical pore structures via a double-template approach. 2014 , 50, 13502-5	44
1842	Ionic Liquid Dynamics in Nanoporous Carbon Nanofibers in Supercapacitors Measured with in Operando Infrared Spectroelectrochemistry. 2014 , 118, 21846-21855	52
1841	MOF-derived porous carbon for adsorptive desulfurization. 2014 , 60, 2747-2751	70
1840	Hierarchically porous carbon derived from polymers and biomass: effect of interconnected pores on energy applications. 2014 , 7, 3574-3592	1021
1839	Enhanced Capacitance Retention in a Supercapacitor Made of Carbon from Sugarcane Bagasse by Hydrothermal Pretreatment. 2014 , 28, 4233-4240	130
1838	Recent advances in porous graphene materials for supercapacitor applications. 2014 , 4, 45862-45884	179
1837	Facile Synthesis of Highly Electrocapacitive Nitrogen-Doped Graphitic Porous Carbons. 2014 , 118, 9357-9367	71
1836	Functional materials derived from open framework templates/precursors: synthesis and applications. 2014 , 7, 2071	536
1835	High-capacity porous carbons prepared by KOH activation of activated carbon for supercapacitors. 2014 , 25, 865-868	44

1834	Nitrogen- and oxygen-containing hierarchical porous carbon frameworks for high-performance supercapacitors. 2014 , 134, 471-477	41
1833	Sulfur/carbon composites prepared with ordered porous carbon for Li-S battery cathode. 2014 , 23, 391-396	21
1832	In situ growth of Co ₃ O ₄ nanoparticles on MnO ₂ nanotubes: a new hybrid for high-performance supercapacitors. 2014 , 2, 8465-8471	40
1831	Selenium encapsulated into 3D interconnected hierarchical porous carbon aerogels for lithium-selenium batteries with high rate performance and cycling stability. 2014 , 267, 394-404	77
1830	Hydrothermal synthesis of microalgae-derived microporous carbons for electrochemical capacitors. 2014 , 267, 26-32	131
1829	Activated carbon made from cow dung as electrode material for electrochemical double layer capacitor. 2014 , 262, 224-231	213
1828	Molten salt activation for synthesis of porous carbon nanostructures and carbon sheets. 2014 , 69, 460-466	141
1827	Synthesis of Graphene. 2014 , 34-77	1
1826	Production of High Surface Area Activated Carbon from Coconut Husk. 2014 , 1644, 1	1
1825	Bio-Derived, Binderless, Hierarchically Porous Carbon Anodes for Li-ion Batteries. 2015 , 5, 14575	83
1824	Porous Graphene-Like Materials Prepared from Hollow Carbonaceous Microspheres for Supercapacitors. 2015 , 1, 422-429	6
1823	Carbon-Based Materials for Lithium-Ion Batteries, Electrochemical Capacitors, and Their Hybrid Devices. 2015 , 8, 2284-311	181
1822	Biomass-Derived Heteroatom-Doped Carbon Aerogels from a Salt Melt Sol-Gel Synthesis and their Performance in Li-S Batteries. 2015 , 8, 3077-83	59
1821	A High-Performance Supercapacitor Based on KOH Activated 1D C70 Microstructures. 2015 , 5, 1500871	51
1820	Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. 2015 , 5, 1500738	226
1819	Mit Salzschnmelzen zu neuen Designerkohlen. 2015 , 63, 979-983	1
1818	Condiment-Derived 3D Architecture Porous Carbon for Electrochemical Supercapacitors. 2015 , 11, 4959-69	100
1817	Co-Doping of Activated Graphene for Synergistically Enhanced Electrocatalytic Oxygen Reduction Reaction. 2015 , 8, 4040-8	21

1816	. 2015,	34
1815	Natural-gel derived, N-doped, ordered and interconnected 1D nanocarbon threads as efficient supercapacitor electrode materials. 2015 , 5, 51382-51391	11
1814	One-step and template-free preparation of hierarchical porous carbons with high capacitive performance. 2015 , 5, 46947-46954	13
1813	Ultrahigh surface area carbon from carbonated beverages: Combining self-templating process and in situ activation. 2015 , 93, 39-47	20
1812	Three-dimensional honeycomb-like hierarchically structured carbon for high-performance supercapacitors derived from high-ash-content sewage sludge. 2015 , 3, 15225-15234	97
1811	Inspired by bread leavening: one-pot synthesis of hierarchically porous carbon for supercapacitors. 2015 , 17, 4053-4060	310
1810	Naturally derived porous carbon with selective metal- and/or nitrogen-doping for efficient CO ₂ capture and oxygen reduction. 2015 , 3, 5212-5222	51
1809	Highly nanoporous carbons by single-step organic salt carbonization for high-performance supercapacitors. 2015 , 45, 839-848	5
1808	Nitrogen-enriched activated carbons from waste particleboard used as electrode materials for supercapacitors: effects of activating agent on surface characteristics. 2015 , 5, 50843-50850	8
1807	Morphology Controlled Synthesis of Nickel Cobalt Oxide for Supercapacitor Application with Enhanced Cycling Stability. 2015 , 174, 51-56	50
1806	Selenium sulfide@mesoporous carbon aerogel composite for rechargeable lithium batteries with good electrochemical performance. 2015 , 284, 95-102	60
1805	Hydrogen-bonding supramolecular protic salt as an all-in-one precursor for nitrogen-doped mesoporous carbons for CO ₂ adsorption. 2015 , 13, 376-386	52
1804	Hierarchically porous carbon by activation of shiitake mushroom for capacitive energy storage. 2015 , 93, 315-324	317
1803	A facile nanocasting strategy to nitrogen-doped porous carbon monolith by treatment with ammonia for efficient oxygen reduction. 2015 , 3, 12836-12844	41
1802	Selenium/pomelo peel-derived carbon nanocomposite as advanced cathode for lithium-selenium batteries. 2015 , 21, 2477-2484	22
1801	Ultrahigh Surface Area Three-Dimensional Porous Graphitic Carbon from Conjugated Polymeric Molecular Framework. 2015 , 1, 68-76	177
1800	Preparing Desirable Activated Carbons from Agricultural Residues for Potential Uses in Water Treatment. 2015 , 6, 1029-1036	8
1799	Hydroxyl-rich nanoporous carbon nanosheets synthesized by a one-pot method and their application in the in situ preparation of well-dispersed Ag nanoparticles. 2015 , 5, 96062-96066	7

1798	Enhanced capacitance supercapacitor electrodes from porous carbons with high mesoporous volume. 2015 , 184, 347-355	35
1797	Freeze-drying for sustainable synthesis of nitrogen doped porous carbon cryogel with enhanced supercapacitor and lithium ion storage performance. 2015 , 26, 374003	53
1796	Influence of pore symmetries on the supercapacitive performance of mesoporous carbons co-templated by F127 and PDMS/PEO. 2015 , 206, 81-85	10
1795	Nitrogen/manganese oxides co-doped nanoporous carbon materials: Structure characterization and electrochemical performances for supercapacitor applications. 2015 , 161, 84-94	9
1794	Exceptional Gas Adsorption Properties by Nitrogen-Doped Porous Carbons Derived from Benzimidazole-Linked Polymers. 2015 , 27, 1349-1358	184
1793	Boric acid-mediated B,N-codoped chitosan-derived porous carbons with a high surface area and greatly improved supercapacitor performance. 2015 , 7, 5120-5	124
1792	Hierarchical microporous/mesoporous carbon nanosheets for high-performance supercapacitors. 2015 , 7, 4344-53	187
1791	Low temperature synthesized carbon nanotube superstructures with superior CO ₂ and hydrogen storage capacity. 2015 , 3, 5148-5161	67
1790	Vertically Aligned Carbon Nanotubes on Carbon Nanofibers: A Hierarchical Three-Dimensional Carbon Nanostructure for High-Energy Flexible Supercapacitors. 2015 , 27, 1194-1200	96
1789	Bio-inspired beehive-like hierarchical nanoporous carbon derived from bamboo-based industrial by-product as a high performance supercapacitor electrode material. 2015 , 3, 5656-5664	289
1788	Pore size effects of nanoporous carbons with ultra-high surface area on high-pressure hydrogen storage. 2015 , 24, 1-8	26
1787	Synthesis and electrochemical capacitive properties of nitrogen-doped porous carbon micropolyhedra by direct carbonization of zeolitic imidazolate framework-11. 2015 , 66, 88-95	43
1786	Fabrication of microporous and mesoporous carbon spheres for high-performance supercapacitor electrode materials. 2015 , 39, 805-811	41
1785	Sustainable activated carbons prepared from a sucrose-derived hydrochar: remarkable adsorbents for pharmaceutical compounds. 2015 , 5, 19696-19707	55
1784	Preparation of Nitrogen and Sulfur dual-doped Mesoporous Carbon for Supercapacitor Electrodes with Long Cycle Stability. 2015 , 177, 327-334	53
1783	Activation of sucrose-derived carbon spheres for high-performance supercapacitor electrodes. 2015 , 5, 9307-9313	61
1782	Making a commercial carbon fiber cloth having comparable capacitances to carbon nanotubes and graphene in supercapacitors through a "top-down" approach. 2015 , 7, 3285-91	49
1781	Synthesis of nitrogen-doped carbon cellular foam with ultra-high rate capability for supercapacitors. 2015 , 5, 10296-10303	10

1780	Preparation of microporous carbon nanofibers from polyimide by using polyvinyl pyrrolidone as template and their capacitive performance. 2015 , 278, 683-692	80
1779	FeOOH decorated highly porous carbon aerogels composite as a cathode material for rechargeable LiD2 batteries. 2015 , 3, 6447-6454	14
1778	Biomass derived low-cost microporous adsorbents for efficient CO 2 capture. 2015 , 148, 246-254	164
1777	Meso/microporous nitrogen-containing carbon nanofibers with enhanced electrochemical capacitance performances. 2015 , 203, 149-155	6
1776	Effect of reduction heat treatment in H2 atmosphere on structure and electrochemical properties of activated carbon. 2015 , 19, 1437-1446	10
1775	Impact of process conditions on preparation of porous carbon from date palm seeds by KOH activation. 2015 , 17, 1671-1679	7
1774	A facile approach to prepare porous cup-stacked carbon nanotube with high performance in adsorption of methylene blue. 2015 , 445, 195-204	60
1773	Synthesis of polybenzoxazine based nitrogen-rich porous carbons for carbon dioxide capture. 2015 , 7, 6534-44	57
1772	Water bamboo-derived porous carbons as electrode materials for supercapacitors. 2015 , 39, 3859-3864	34
1771	Thermal and structure analysis on reaction mechanisms during the preparation of activated carbon fibers by KOH activation from liquefied wood-based fibers. 2015 , 69, 447-455	117
1770	Valorization of Lignin Waste: Carbons from Hydrothermal Carbonization of Renewable Lignin as Superior Sorbents for CO2 and Hydrogen Storage. 2015 , 3, 1658-1667	112
1769	Highly porous N-doped carbons impregnated with sodium for efficient CO2 capture. 2015 , 3, 10919-10927	62
1768	Recent advances on multi-component hybrid nanostructures for electrochemical capacitors. 2015 , 294, 31-50	94
1767	Textural and Fractal Characteristics of KOH-Activated Microporous Carbon Materials and their Carbon Dioxide Storage Performances. 2015 , 1118, 255-264	
1766	Adsorptive desulfurization performances of ordered mesoporous carbons with tailored textural and surface properties. 2015 , 158, 565-571	38
1765	Scalable fabrication of exceptional 3D carbon networks for supercapacitors. 2015 , 3, 16104-16111	49
1764	Thermochemical conversion of lignin to functional materials: a review and future directions. 2015 , 17, 4888-4907	339
1763	Three-dimensional hierarchical nitrogen-doped arch and hollow nanocarbons: morphological influences on supercapacitor applications. 2015 , 3, 16242-16250	51

1762	Supercapacitive Performance of Mesoporous Carbon Materials Co-Templated by F127 and PDMS-PEO. 2015 , 1096, 325-330	
1761	Superior CO ₂ adsorption from waste coffee ground derived carbons. 2015 , 5, 29558-29562	46
1760	Schiff-base polymer derived nitrogen-rich microporous carbon spheres synthesized by molten-salt route for high-performance supercapacitors. 2015 , 5, 60956-60961	10
1759	High-surface area carbons from renewable sources with a bimodal micro-mesoporosity for high-performance ionic liquid-based supercapacitors. 2015 , 94, 41-52	86
1758	Microscale characterization of coupled degradation mechanism of graded materials in lithium batteries of electric vehicles. 2015 , 50, 1445-1461	16
1757	Electrochemical behaviour of activated carbons obtained via hydrothermal carbonization. 2015 , 3, 15558-15563	33
1756	Spherical potassium intercalated activated carbon beads for pulverised fuel CO ₂ post-combustion capture. 2015 , 94, 243-255	53
1755	Honeycomb-like Porous Carbon-Cobalt Oxide Nanocomposite for High-Performance Enzymeless Glucose Sensor and Supercapacitor Applications. 2015 , 7, 15812-20	180
1754	Carbon-coated Si/MnO ₂ nanoneedle composites with optimum carbon layer activation for supercapacitor applications. 2015 , 273, 82-91	24
1753	Hydrogen adsorption by perforated graphene. 2015 , 40, 6594-6599	50
1752	KOH etched graphite for fast chargeable lithium-ion batteries. 2015 , 284, 258-263	64
1751	Electrospinning of porous carbon nanocomposites for supercapacitor. 2015 , 16, 421-425	10
1750	Novel N-doped porous carbon microspheres containing oxygen and phosphorus for CO ₂ absorbent and metal-free electrocatalysts. 2015 , 5, 28080-28084	13
1749	3D sponge-like nanoporous carbons via a facile synthesis for high-performance supercapacitors: direct carbonization of tartrate salt. 2015 , 169, 13-21	40
1748	Nanoporous Activated Carbons Derived from Agro-Waste Corncob for Enhanced Electrochemical and Sensing Performance. 2015 , 88, 1108-1115	53
1747	Self-activation of cellulose: A new preparation methodology for activated carbon electrodes in electrochemical capacitors. 2015 , 13, 709-717	77
1746	Hierarchical porous nitrogen-doped carbon nanosheets derived from silk for ultrahigh-capacity battery anodes and supercapacitors. 2015 , 9, 2556-64	1164
1745	Porous activated graphene nanoplatelets incorporated in TiO ₂ photoanodes for high-efficiency dye-sensitized solar cells. 2015 , 3, 8890-8895	16

1744	Asymmetric supercapacitors based on carbon nanotubes@NiO ultrathin nanosheets core-shell composites and MOF-derived porous carbon polyhedrons with super-long cycle life. 2015 , 285, 281-290	249
1743	Nano Carbon Black Powder Synthesized via Liquid Phase Plasma Process as a Supercapacitor Active Material. 2015 , 162, A1445-A1450	8
1742	Self-generating graphene and porous nanocarbon composites for capacitive energy storage. 2015 , 3, 11277-11286	54
1741	Enhancement of capacitive deionization capacity of hierarchical porous carbon. 2015 , 3, 12730-12737	62
1740	A generalized ZnCl ₂ activation method to produce nitrogen-containing nanoporous carbon materials for supercapacitor applications. 2015 , 636, 275-281	31
1739	Promising biomass-based activated carbons derived from willow catkins for high performance supercapacitors. 2015 , 166, 1-11	292
1738	Large-scale synthesis and activation of polygonal carbon nanofibers with thin ribbon-like structures for supercapacitor electrodes. 2015 , 5, 31837-31844	29
1737	Microporous carbon derived from acacia gum with tuned porosity for high-performance electrochemical capacitors. 2015 , 40, 6188-6196	52
1736	Nanostructured Activated Carbons for Supercapacitors. 2015 , 1-34	3
1735	Removal of Dyes from Effluents Using Biowaste-Derived Adsorbents. 2015 , 139-201	5
1734	Cajeput tree bark derived activated carbon for the practical electrochemical detection of vanillin. 2015 , 39, 9109-9115	29
1733	Development of Biochar-Based Functional Materials: Toward a Sustainable Platform Carbon Material. 2015 , 115, 12251-85	792
1732	Preparation of high specific surface area activated carbon from walnut shells by microwave-induced KOH activation. 2015 , 22, 1527-1537	10
1731	Activated Carbons Derived from Hydrothermally Carbonized Sucrose: Remarkable Adsorbents for Adsorptive Desulfurization. 2015 , 3, 2237-2246	80
1730	Heterogeneous Nanostructures for Sodium Ion Batteries and Supercapacitors. 2015 , 1, 458-476	25
1729	Adsorption of imidazolium-based ionic liquids from aqueous solution onto cellulose-derived activated carbon materials. 2015 , 3, 2426-2434	9
1728	Zinc citrate-based nanoporous carbon materials: Large capacitive enhancement using redox active electrolyte of p-phenylenediamine. 2015 , 651, 414-422	12
1727	Human hair-derived nitrogen and sulfur co-doped porous carbon materials for gas adsorption. 2015 , 5, 73980-73988	46

1726	Encapsulating selenium into macro-/micro-porous biochar-based framework for high-performance lithium-selenium batteries. 2015 , 95, 354-363	77
1725	Facile synthesis of hierarchical porous carbon via the liquidoid carbonization method for supercapacitors. 2015 , 39, 8165-8171	12
1724	Hydrogen storage in high surface area graphene scaffolds. 2015 , 51, 15280-3	60
1723	Coal derived porous carbon fibers with tunable internal channels for flexible electrodes and organic matter absorption. 2015 , 3, 21178-21184	55
1722	Compactation: A mechanochemical approach to carbons with superior porosity and exceptional performance for hydrogen and CO ₂ storage. 2015 , 16, 173-185	76
1721	Synthesis of 3D porous carbon based on cheap polymers and graphene foam for high-performance electrochemical capacitors. 2015 , 180, 442-450	36
1720	Mesopore-dominant activated carbon aerogels with high surface area for electric double-layer capacitor application. 2015 , 161, 538-541	28
1719	A comprehensive study of polyaniline-derived porous carbons via KOH activation. 2015 , 5, 77629-77636	8
1718	Activated Carbon Nanochains with Tailored Micro-Meso Pore Structures and Their Application for Supercapacitors. 2015 , 119, 21810-21817	19
1717	Utilizing ionic liquids for controlled N-doping in hard-templated, mesoporous carbon electrodes for high-performance electrochemical double-layer capacitors. 2015 , 298, 193-202	37
1716	Porous Graphene Oxide/Diboronic Acid Materials: Structure and Hydrogen Sorption. 2015 , 119, 27179-27191	40
1715	Effect of addition of different carbon materials on hydrogel derived carbon material for high performance electrochemical capacitors. 2015 , 186, 277-284	12
1714	Hierarchical micro-/mesoporous N- and O-enriched carbon derived from disposable cashmere: a competitive cost-effective material for high-performance electrochemical capacitors. 2015 , 17, 2373-2382	215
1713	Fungi-derived hierarchically porous carbons for high-performance supercapacitors. 2015 , 5, 4396-4403	32
1712	Biomass-derived porous carbon materials with sulfur and nitrogen dual-doping for energy storage. 2015 , 17, 1668-1674	481
1711	Magnetic Fe ₂ O ₃ , Fe ₃ O ₄ , and Fe nanoparticles confined within ordered mesoporous carbons as efficient microwave absorbers. 2015 , 17, 3802-12	78
1710	Synthesis of hierarchical porous N-doped sandwich-type carbon composites as high-performance supercapacitor electrodes. 2015 , 3, 3667-3675	60
1709	N-doped porous carbon capsules with tunable porosity for high-performance supercapacitors. 2015 , 3, 2914-2923	175

1708	Microporous carbon derived from Apricot shell as cathode material for lithium-sulfur battery. 2015 , 204, 235-241	65
1707	Controlling porosity in lignin-derived nanoporous carbon for supercapacitor applications. 2015 , 8, 428-32	157
1706	Mechanisms of pore formation on multi-wall carbon nanotubes by KOH activation. 2015 , 206, 194-201	26
1705	Facile fabrication of flexible all solid-state micro-supercapacitor by direct laser writing of porous carbon in polyimide. 2015 , 83, 144-151	179
1704	Symmetric supercapacitors based on porous 3D interconnected carbon framework. 2015 , 151, 386-392	103
1703	Nickel cobaltite as an emerging material for supercapacitors: An overview. 2015 , 11, 377-399	354
1702	Heteroatom-doped highly porous carbon from human urine. 2014 , 4, 5221	100
1701	A review on solid adsorbents for carbon dioxide capture. 2015 , 23, 1-11	398
1700	Facile synthesis of wheat bran-derived honeycomb-like hierarchical carbon for advanced symmetric supercapacitor applications. 2015 , 19, 577-584	48
1699	Converting real-world mixed waste plastics into porous carbon nanosheets with excellent performance in the adsorption of an organic dye from wastewater. 2015 , 3, 341-351	117
1698	Amphiphilic carbonaceous material-based hierarchical porous carbon aerogels for supercapacitors. 2015 , 19, 619-627	9
1697	Microporous bamboo biochar for lithium-sulfur batteries. 2015 , 8, 129-139	238
1696	Effect of pH on the sonochemical synthesis of BiPO ₄ nanostructures and its electrochemical properties for pseudocapacitors. 2015 , 22, 300-10	53
1695	Heteroatom-enriched and renewable banana-stem-derived porous carbon for the electrochemical determination of nitrite in various water samples. 2014 , 4, 4679	88
1694	Efficient adsorptive removal of dibenzothiophene from model fuel over heteroatom-doped porous carbons by carbonization of an organic salt. 2015 , 259, 771-778	58
1693	Temperature dependence of the electrical conductivity of activated carbons prepared from vine shoots by physical and chemical activation methods. 2015 , 209, 90-98	35
1692	High-Surface-Area, Emulsion-Templated Carbon Foams by Activation of polyHIPEs Derived from Pickering Emulsions. 2016 , 9,	18
1691	Preparation and Characterization of Activated Carbon Fibers from Liquefied Wood by ZnCl ₂ Activation. 2016 , 11,	15

1690	Frame-filling structural nanoporous carbon from amphiphilic carbonaceous mixture comprising graphite oxide. 2016 , 108, 225-233	15
1689	Polyurethane Foam-Based Ultramicroporous Carbons for CO ₂ Capture. 2016 , 8, 18849-59	48
1688	Hierarchically porous carbon foams for electric double layer capacitors. 2016 , 9, 2875-2888	98
1687	Biomass-Derived Porous Carbon with Micropores and Small Mesopores for High-Performance Lithium-Sulfur Batteries. 2016 , 22, 3239-3244	92
1686	A Hierarchical Carbon Derived from Sponge-Templated Activation of Graphene Oxide for High-Performance Supercapacitor Electrodes. 2016 , 28, 5222-8	323
1685	Silk Fibroin for Flexible Electronic Devices. 2016 , 28, 4250-65	340
1684	Fabrication of carbon microspheres with controllable porous structure by using waste <i>Camellia oleifera</i> shells. 2016 , 181, 518-528	22
1683	Metal-Organic Frameworks Derived Porous Carbons: Syntheses, Porosity and Gas Sorption Properties. 2016 , 34, 157-174	29
1682	Easy preparation of partially-opened carbon nanotubes by simple air oxidation for high performance LiB batteries. 2016 , 6, 113522-113526	7
1681	In-Situ-Activated N-Doped Mesoporous Carbon from a Protic Salt and Its Performance in Supercapacitors. 2016 , 8, 35243-35252	29
1680	A nanoporous carbon material derived from pomelo peels as a fiber coating for solid-phase microextraction. 2016 , 6, 113951-113958	11
1679	A Sheet-like Carbon Matrix Hosted Sulfur as Cathode for High-performance Lithium-Sulfur Batteries. 2016 , 6, 20445	31
1678	One-step nanocasting synthesis of nitrogen and phosphorus dual heteroatom doped ordered mesoporous carbons for supercapacitor application. 2016 , 6, 110337-110343	28
1677	Hierarchically porous heteroatom-doped carbon derived from flue gases for electrochemical energy storage. 2016 , 16, 420-427	8
1676	Silk-derived graphene-like carbon with high electrocatalytic activity for oxygen reduction reaction. 2016 , 6, 34219-34224	21
1675	Molten salt synthesis of nitrogen doped porous carbon: a new preparation methodology for high-volumetric capacitance electrode materials. 2016 , 4, 9832-9843	124
1674	Biobased Nano Porous Active Carbon Fibers for High-Performance Supercapacitors. 2016 , 8, 15205-15	159
1673	Effects of Cellulose, Hemicellulose, and Lignin on the Structure and Morphology of Porous Carbons. 2016 , 4, 3750-3756	186

1672	A novel method for the production of mesoporous activated carbon fibers from liquefied wood. 2016 , 178, 190-192	8
1671	Insight into the electrochemical behavior of lithium-sulfur cells assisted by potassium hydroxide activated carbon black and polyaniline nanorods. 2016 , 209, 643-653	18
1670	Interconnected Hierarchical Porous Carbon from Lignin-Derived Byproducts of Bioethanol Production for Ultra-High Performance Supercapacitors. 2016 , 8, 13918-25	158
1669	Porous carbon materials with dual N, S-doping and uniform ultra-microporosity for high performance supercapacitors. 2016 , 209, 557-564	82
1668	Outlook and challenges for hydrogen storage in nanoporous materials. 2016 , 122, 1	92
1667	A corn stalk-derived porous carbonaceous adsorbent for adsorption of ionic liquids from aqueous solution. 2016 , 6, 32505-32513	18
1666	From black liquor to highly porous carbon adsorbents with tunable microstructure and excellent adsorption of tetracycline from water: Performance and mechanism study. 2016 , 63, 295-302	22
1665	Biomass-Derived Hierarchical Nanoporous Carbon with Rich Functional Groups for Direct-Electron-Transfer-Based Glucose Sensing. 2016 , 3, 144-151	18
1664	Mango stone-derived activated carbon with high sulfur loading as a cathode material for lithium-sulfur batteries. 2016 , 6, 39918-39925	28
1663	2D quasi-ordered nitrogen-enriched porous carbon nanohybrids for high energy density supercapacitors. 2016 , 8, 10166-76	29
1662	Large-scale synthesis of highly porous carbon nanosheets for supercapacitor electrodes. 2016 , 677, 105-111	54
1661	Highly porous activated carbons prepared from carbon rich Mongolian anthracite by direct NaOH activation. 2016 , 379, 331-337	57
1660	Enhancement of CO ₂ Capture on Biomass-Based Carbon from Black Locust by KOH Activation and Ammonia Modification. 2016 , 30, 4181-4190	128
1659	Facile synthesis of highly porous N-doped CNTs/Fe ₃ C and its electrochemical properties. 2016 , 6, 44013-44018	12
1658	Fabrication of carbon nanorods and graphene nanoribbons from a metal-organic framework. 2016 , 8, 718-24	674
1657	Facile synthesis of high-surface-area activated carbon from coal for supercapacitors and high CO ₂ sorption. 2016 , 6, 42019-42028	26
1656	A melamine-assisted chemical blowing synthesis of N-doped activated carbon sheets for supercapacitor application. 2016 , 319, 262-270	155
1655	High-Performance Supercapacitor Based on the NaOH Activated D-Glucose Derived Carbon. 2016 , 11, 1650075	9

1654	Biodiesel production waste as promising biomass precursor of reusable activated carbons for caffeine removal. 2016 , 6, 45419-45427	13
1653	Significantly increasing porosity of mesoporous carbon by NaNH ₂ activation for enhanced CO ₂ adsorption. 2016 , 230, 100-108	34
1652	Exploration of microporous bio-carbon scaffold for efficient utilization of sulfur in lithium-sulfur system. 2016 , 209, 171-182	31
1651	Central composite design approach towards optimization of super activated carbons from bamboo for hydrogen storage. 2016 , 6, 46977-46983	15
1650	Facile synthesis of nitrogen-doped, hierarchical porous carbons with a high surface area: the activation effect of a nano-ZnO template. 2016 , 4, 16341-16348	88
1649	Templating of carbon in zeolites under pressure: synthesis of pelletized zeolite templated carbons with improved porosity and packing density for superior gas (CO ₂ and H ₂) uptake properties. 2016 , 4, 14254-14266	28
1648	Symmetric supercapacitors using urea-modified lignin derived N-doped porous carbon as electrode materials in liquid and solid electrolytes. 2016 , 332, 180-186	74
1647	Reducing Li-diffusion pathways via adherence of ultra-small nanocrystals of LiFePO ₄ on few-layer nanoporous holey-graphene sheets for achieving high rate capability. 2016 , 6, 89328-89337	10
1646	Heteroatom-Doped Porous Carbon Nanosheets: General Preparation and Enhanced Capacitive Properties. 2016 , 22, 16668-16674	14
1645	Porous nitrogen-doped carbon tubes derived from reed catkins as a high-performance anode for lithium ion batteries. 2016 , 6, 98434-98439	9
1644	Facile synthesis of bicontinuous microporous/mesoporous carbon foam with ultrahigh specific surface area for supercapacitor application. 2016 , 219, 339-349	44
1643	Honeycomb-like hierarchical carbon derived from livestock sewage sludge as oxygen reduction reaction catalysts in microbial fuel cells. 2016 , 41, 22328-22336	29
1642	Electrochemical catalytic activity study of nitrogen-containing hierarchically porous carbon and its application in dye-sensitized solar cells. 2016 , 6, 96109-96120	8
1641	KOH etched graphite felt with improved wettability and activity for vanadium flow batteries. 2016 , 218, 15-23	110
1640	Enhancing low pressure CO ₂ adsorption of solvent-free derived mesoporous carbon by highly dispersed potassium species. 2016 , 6, 33580-33588	8
1639	Graphene derived carbon confined sulfur cathodes for lithium-sulfur batteries: Electrochemical impedance studies. 2016 , 214, 129-138	35
1638	Defining a performance map of porous carbon sorbents for high-pressure carbon dioxide uptake and carbon dioxide/methane selectivity. 2016 , 4, 14739-14751	25
1637	Functional materials from nature: honeycomb-like carbon nanosheets derived from silk cocoon as excellent electrocatalysts for hydrogen evolution reaction. 2016 , 215, 223-230	49

- 1636 N-P-O co-doped high performance 3D graphene prepared through red phosphorous-assisted cutting-thin technique: A universal synthesis and multifunctional applications. **2016**, 28, 346-355 181
- 1635 Natural sisal fibers derived hierarchical porous activated carbon as capacitive material in lithium ion capacitor. **2016**, 329, 339-346 73
- 1634 Highly Porous Renewable Carbons for Enhanced Storage of Energy-Related Gases (H₂ and CO₂) at High Pressures. **2016**, 4, 4710-4716 48
- 1633 A cost-effective synthesis of heteroatom-doped porous carbons as efficient CO₂ sorbents. **2016**, 4, 14693-14703 69
- 1632 Hierarchical porous carbon materials prepared using nano-ZnO as a template and activation agent for ultrahigh power supercapacitors. **2016**, 52, 11512-11515 60
- 1631 Preparation of macroscopic spherical porous carbons@carboxymethylcellulose sodium gel beads and application for removal of tetracycline. **2016**, 6, 84536-84546 11
- 1630 Coniferous pine biomass: A novel insight into sustainable carbon materials for supercapacitors electrode. **2016**, 182, 139-147 43
- 1629 Aloe vera Derived Activated High-Surface-Area Carbon for Flexible and High-Energy Supercapacitors. **2016**, 8, 35191-35202 120
- 1628 Laser Carbonization of PAN-Nanofiber Mats with Enhanced Surface Area and Porosity. **2016**, 8, 28412-28417 25
- 1627 From Trash to Treasure: Direct Transformation of Onion Husks into Three-Dimensional Interconnected Porous Carbon Frameworks for High-Performance Supercapacitors in Organic Electrolyte. **2016**, 216, 405-411 66
- 1626 Hyperporous Carbons from Hypercrosslinked Polymers. **2016**, 28, 9804-9810 163
- 1625 Formation of graphene flowers during high temperature activation of mesocarbon microbeads with KOH. **2016**, 234, 384-391 19
- 1624 Irreproducibility in hydrogen storage material research. **2016**, 9, 3368-3380 68
- 1623 Carbon nanosheet frameworks derived from sodium alginate as anode materials for sodium-ion batteries. **2016**, 185, 530-533 7
- 1622 Simultaneously obtaining fluorescent carbon dots and porous active carbon for supercapacitors from biomass. **2016**, 6, 88674-88682 25
- 1621 Popcorn-Derived Porous Carbon for Energy Storage and CO₂ Capture. **2016**, 32, 8042-9 81
- 1620 Nanomaterials in Advanced Batteries and Supercapacitors. **2016**, 21 21
- 1619 Carbon Materials for Supercapacitors. **2016**, 271-315 3

1618	Hierarchical porous activated carbon for supercapacitor derived from corn stalk core by potassium hydroxide activation. 2016 , 212, 839-847	103
1617	On the cycling stability of the supercapacitive performance of activated carbon in KOH and H2SO4 electrolytes. 2016 , 511, 294-302	19
1616	One-Step Synthesis of Microporous Carbon Monoliths Derived from Biomass with High Nitrogen Doping Content for Highly Selective CO2 Capture. 2016 , 6, 30049	53
1615	Tailored activated carbons for supercapacitors derived from hydrothermally carbonized sugars by chemical activation. 2016 , 6, 110629-110641	12
1614	Preparation and Performance of Metal-Organic-Frameworks-Derived Activated Mesoporous Carbon Polyhedron with Sponge-Like Structure for Lithium Sulfur Batteries. 2016 , 163, A2922-A2929	17
1613	Activated Carbon Nanogels. 2016 , 187-202	
1612	KOH-Activated Porous Carbons Derived from Chestnut Shell with Superior Capacitive Performance. 2016 , 34, 1093-1102	16
1611	Facile Synthesis of Hierarchical Porous Carbon Monolith: A Free-Standing Anode for Li-Ion Battery with Enhanced Electrochemical Performance. 2016 , 55, 11818-11828	12
1610	Activated carbon materials derived from liquefied bark-phenol formaldehyde resins for high performance supercapacitors. 2016 , 6, 105540-105549	9
1609	Boosted Supercapacitive Energy with High Rate Capability of a Carbon Framework with Hierarchical Pore Structure in an Ionic Liquid. 2016 , 9, 3093-3101	28
1608	Preparation of porous carbon nanofibers derived from PBI/PLLA for supercapacitor electrodes. 2016 , 27, 425708	12
1607	Facile Synthesis of Three-Dimensional Heteroatom-Doped and Hierarchical Egg-Box-Like Carbons Derived from Moringa oleifera Branches for High-Performance Supercapacitors. 2016 , 8, 33060-33071	102
1606	Thermal transformation of betulin by alkaline activation. 2016 , 42, 741-747	1
1605	Pumpkin-Derived Porous Carbon for Supercapacitors with High Performance. 2016 , 11, 1828-36	40
1604	Facile Synthesis of Nitrogen-Containing Mesoporous Carbon for High-Performance Energy Storage Applications. 2016 , 22, 4256-62	16
1603	Biomass-derived carbon: synthesis and applications in energy storage and conversion. 2016 , 18, 4824-4854	560
1602	Pyrrole modified biomass derived hierarchical porous carbon as high performance symmetrical supercapacitor electrodes. 2016 , 41, 13109-13115	32
1601	Resorcinol-formaldehyde resin based porous carbon materials with yolk-shell structure for high-performance supercapacitors. 2016 , 219, 67-75	14

1600	Colloidal supercapacitor electrode materials. 2016 , 83, 201-206	31
1599	Li-ion capacitor based on activated rice husk derived porous carbon with improved electrochemical performance. 2016 , 211, 289-296	52
1598	N-rich porous carbon with high CO ₂ capture capacity derived from polyamine-incorporated metal-organic framework materials. 2016 , 6, 53017-53024	20
1597	Facile, low-cost, and sustainable preparation of hierarchical porous carbons from ion exchange resin: An improved potassium activation strategy. 2016 , 179, 274-280	14
1596	A facile method to prepare porous graphene with tunable structure as electrode materials for immobilization of glucose oxidase. 2016 , 502, 26-33	6
1595	Activated-Nitrogen-Doped Graphene-Based Aerogel Composites as Cathode Materials for High Energy Density Lithium-Ion Supercapacitor. 2016 , 163, A1736-A1742	30
1594	3D hybrid porous carbon derived from carbonization of metal organic frameworks for high performance supercapacitors. 2016 , 325, 286-291	74
1593	Biomass-derived nanostructured porous carbons for lithium-sulfur batteries. 2016 , 59, 389-407	83
1592	Hollow porous carbon spheres with hierarchical nanoarchitecture for application of the high performance supercapacitors. 2016 , 211, 183-192	102
1591	Amine Functionalization of Microsized and Nanosized Mesoporous Carbons for Carbon Dioxide Capture. 2016 , 55, 7355-7361	24
1590	Hierarchically Flower-like N-Doped Porous Carbon Materials Derived from an Explosive 3-Fold Interpenetrating Diamondoid Copper Metal-Organic Framework for a Supercapacitor. 2016 , 55, 6552-62	67
1589	Creating Pores on Graphene Platelets by Low-Temperature KOH Activation for Enhanced Electrochemical Performance. 2016 , 12, 2376-84	76
1588	Coherent polyaniline/graphene oxides/multi-walled carbon nanotubes ternary composites for asymmetric supercapacitors. 2016 , 191, 165-172	29
1587	A Novel Layered Sedimentary Rocks Structure of the Oxygen-Enriched Carbon for Ultrahigh-Rate-Performance Supercapacitors. 2016 , 8, 4233-41	50
1586	KOH-activated nitrogen doped porous carbon nanowires with superior performance in supercapacitors. 2016 , 190, 229-239	69
1585	Facile synthesis of microporous carbon for supercapacitors with a LiNO ₃ electrolyte. 2016 , 100, 214-222	27
1584	A melt route for the synthesis of activated carbon derived from carton box for high performance symmetric supercapacitor applications. 2016 , 307, 401-409	115
1583	The hierarchical porosity of a three-dimensional graphene electrode for binder-free and high performance supercapacitors. 2016 , 6, 8384-8394	20

1582	Porous carbon nanoflakes with a high specific surface area derived from a kapok fiber for high-performance electrode materials of supercapacitors. 2016 , 6, 6967-6977	17
1581	Rod-shape porous carbon derived from aniline modified lignin for symmetric supercapacitors. 2016 , 307, 462-467	56
1580	Hierarchically porous and heteroatom doped carbon derived from tobacco rods for supercapacitors. 2016 , 307, 391-400	374
1579	Geometrically confined favourable ion packing for high gravimetric capacitance in carbon ^{ionic} liquid supercapacitors. 2016 , 9, 232-239	92
1578	Improving the Environmental and Economic Viability of U.S. Oil Shale via Waste-to-Byproduct Conversion of Semicoke to Sorbents. 2016 , 30, 188-195	7
1577	Renewable pine cone biomass derived carbon materials for supercapacitor application. 2016 , 6, 1800-1809	117
1576	Interactions Between Electrolytes and Carbon-Based MaterialsNMR Studies on Electrical Double-Layer Capacitors, Lithium-Ion Batteries, and Fuel Cells. 2016 , 237-318	13
1575	From Azo-Linked Polymers to Microporous Heteroatom-Doped Carbons: Tailored Chemical and Textural Properties for Gas Separation. 2016 , 8, 8491-501	34
1574	Large and porous carbon sheets derived from water hyacinth for high-performance supercapacitors. 2016 , 6, 29996-30003	35
1573	Nitrogen-containing chitosan-based carbon as an electrode material for high-performance supercapacitors. 2016 , 46, 667-677	57
1572	Self-assembly of polyhedral oligosilsesquioxane (POSS) into hierarchically ordered mesoporous carbons with uniform microporosity and nitrogen-doping for high performance supercapacitors. 2016 , 22, 255-268	80
1571	Organic Amine-Mediated Synthesis of Polymer and Carbon Microspheres: Mechanism Insight and Energy-Related Applications. 2016 , 8, 4851-61	24
1570	Pyrolytic Temperature Dependent and Ash Catalyzed Formation of Sludge Char with Ultra-High Adsorption to 1-Naphthol. 2016 , 50, 2602-9	62
1569	Carbon-based adsorber resin Lewatit AF 5 applicability in metal ion recovery. 2016 , 224, 400-414	16
1568	Three-dimensional freestanding hierarchically porous carbon materials as binder-free electrodes for supercapacitors: high capacitive property and long-term cycling stability. 2016 , 4, 5623-5631	70
1567	Lignite-derived mesoporous N- and O-enriched carbon sheet: a low-cost promising electrode for high-performance electrochemical capacitors. 2016 , 20, 713-723	12
1566	Hydrogel-derived heteroatom-doped porous carbon networks for supercapacitor and electrocatalytic oxygen reduction. 2016 , 103, 9-15	122
1565	An efficient preparation of N-doped mesoporous carbon derived from milk powder for supercapacitors and fuel cells. 2016 , 196, 527-534	42

1564	3D interconnected porous carbons from MOF-5 for supercapacitors. 2016 , 172, 81-84	44
1563	Nitrogen-modified biomass-derived cheese-like porous carbon for electric double layer capacitors. 2016 , 6, 26738-26744	18
1562	Carbon dioxide activated carbon nanofibers with hierarchical micro-/mesoporosity towards electrocatalytic oxygen reduction. 2016 , 4, 5553-5560	28
1561	Silica-assisted bottom-up synthesis of graphene-like high surface area carbon for highly efficient ultracapacitor and Li-ion hybrid capacitor applications. 2016 , 4, 5578-5591	52
1560	Activated Flake Graphite Coated with Pyrolysis Carbon as Promising Anode for Lithium Storage. 2016 , 196, 405-412	17
1559	Preparation of highly porous carbon from sustainable cellulose for superior removal performance of tetracycline and sulfamethazine from water. 2016 , 6, 28023-28033	32
1558	A microporous silk carbon-ionic liquid composite for the electrochemical sensing of dopamine. 2016 , 141, 2447-53	14
1557	Synthesis of N-doped hierarchical carbon spheres for CO ₂ capture and supercapacitors. 2016 , 6, 1422-1427	31
1556	Nitrogen-doped porous carbon nanofiber webs for efficient CO ₂ capture and conversion. 2016 , 99, 79-89	126
1555	Palladium Nanoparticle Incorporated Porous Activated Carbon: Electrochemical Detection of Toxic Metal Ions. 2016 , 8, 1319-26	110
1554	Hierarchical Metal-Free Nitrogen-Doped Porous Graphene/Carbon Composites as an Efficient Oxygen Reduction Reaction Catalyst. 2016 , 8, 1415-23	98
1553	Functional Groups and Pore Size Distribution Do Matter to Hierarchically Porous Carbons as High-Rate-Performance Supercapacitors. 2016 , 28, 445-458	189
1552	Facile synthesis of nitrogen-doped hierarchical porous lamellar carbon for high-performance supercapacitors. 2016 , 6, 3942-3950	27
1551	One-pot construction of 3-D nitrogen-doped activated graphene-like nanosheets for high-performance supercapacitors. 2016 , 190, 378-387	43
1550	Experimental investigation of hydrogen adsorption in doped silicon-carbide nanotubes. 2016 , 41, 369-374	28
1549	Electrochemical characterization of sulfur with low depth of charge/discharge in lithium sulfur batteries. 2016 , 187, 629-635	16
1548	MnO ₂ -wrapped hollow graphitized carbon nanosphere electrode for supercapacitor. 2016 , 73, 429-436	15
1547	Tube-like carbon for Li-ion capacitors derived from the environmentally undesirable plant: Prosopis juliflora. 2016 , 98, 58-66	41

1546	A cost-effective porous carbon derived from pomelo peel for the removal of methyl orange from aqueous solution. 2016 , 489, 191-199	76
1545	Activated graphene-derived porous carbon with exceptional gas adsorption properties. 2016 , 220, 21-27	64
1544	A zeolitic imidazolate framework based nanoporous carbon as a novel fiber coating for solid-phase microextraction of pyrethroid pesticides. 2017 , 166, 46-53	57
1543	Synthesis and characterization of microporous activated carbon from coffee grounds using potassium hydroxides. 2017 , 147, 254-262	86
1542	Optimization of Microporous Carbon Structures for Lithium-Sulfur Battery Applications in Carbonate-Based Electrolyte. 2017 , 13, 1603533	51
1541	Preparation and CO ₂ adsorption properties of porous carbon from camphor leaves by hydrothermal carbonization and sequential potassium hydroxide activation. 2017 , 7, 4152-4160	26
1540	Harvesting direct electricity from municipal waste-activated sludge simultaneous with its aerobic stabilization process: Investigation and optimization. 2017 , 5, 1174-1185	8
1539	Porous carbon derived from aniline-modified fungus for symmetrical supercapacitor electrodes. 2017 , 7, 8236-8240	7
1538	A simple approach of constructing sulfur-containing porous carbon nanotubes for high-performance supercapacitors. 2017 , 115, 754-762	41
1537	Biomass-Based Fuels and Activated Carbon Electrode Materials: An Integrated Approach to Green Energy Systems. 2017 , 5, 3046-3054	65
1536	Flower-like hierarchical porous nitrogen-doped carbon spheres from a facile one-step carbonization method for supercapacitors. 2017 , 28, 9301-9308	8
1535	Review of macroporous materials as electrochemical supercapacitor electrodes. 2017 , 52, 11201-11228	96
1534	Biomass derived graphene-like activated and non-activated porous carbon for advanced supercapacitors. 2017 , 129, 397-404	39
1533	Simultaneous Activation/Exfoliation/Reassembly to Form Layered Carbon with Hierarchical Pores. 2017 , 9, 2488-2495	5
1532	Electrochemical Studies on Corn cob Derived Activated Porous Carbon for Supercapacitors Application in Aqueous and Non-aqueous Electrolytes. 2017 , 228, 586-596	126
1531	Optimized mesopores enabling enhanced rate performance in novel ultrahigh surface area meso-/microporous carbon for supercapacitors. 2017 , 33, 453-461	141
1530	Promising biomass-derived hierarchical porous carbon material for high performance supercapacitor. 2017 , 7, 10385-10390	36
1529	Single step synthesis of activated bio-carbons with a high surface area and their excellent CO ₂ adsorption capacity. 2017 , 116, 448-455	191

1528	A green and fast approach to nanoporous carbons with tuned porosity: UV-assisted condensation of organic compounds at room temperature. 2017 , 116, 264-274	6
1527	Tuning pore characteristics of porous carbon monoliths prepared from rubber wood waste treated with H ₃ PO ₄ or NaOH and their potential as supercapacitor electrode materials. 2017 , 52, 6837-6855	37
1526	Free-standing activated flax fabrics with tunable meso/micropore ratio for high-rate capacitance. 2017 , 116, 518-527	20
1525	Multiscale Pore Network Boosts Capacitance of Carbon Electrodes for Ultrafast Charging. 2017 , 17, 3097-3104	206
1524	One-pot synthesis of highly activated carbons from melamine and terephthalaldehyde as electrodes for high energy aqueous supercapacitors. 2017 , 5, 14619-14629	44
1523	High-surface-area tofu based activated porous carbon for electrical double-layer capacitors. 2017 , 52, 121-127	45
1522	Unconventional mesopore carbon nanomesh prepared through explosion-assisted activation approach: A robust electrode material for ultrafast organic electrolyte supercapacitors. 2017 , 119, 30-39	68
1521	A novel synthesis of hierarchical porous carbons from resol by potassium acetate activation for high performance supercapacitor electrodes. 2017 , 712, 76-81	18
1520	Biomass-derived mesopore-dominant porous carbons with large specific surface area and high defect density as high performance electrode materials for Li-ion batteries and supercapacitors. 2017 , 36, 322-330	348
1519	Solvent-Free Mechanochemical Synthesis of Nitrogen-Doped Nanoporous Carbon for Electrochemical Energy Storage. 2017 , 10, 2416-2424	94
1518	Hierarchical design of nitrogen-doped porous carbon nanorods for use in high efficiency capacitive energy storage. 2017 , 7, 22447-22453	15
1517	Electrochemical Activation of Graphene at Low Temperature: The Synthesis of Three-Dimensional Nanoarchitectures for High Performance Supercapacitors and Capacitive Deionization. 2017 , 5, 4573-4581	40
1516	Squid inks-derived nanocarbons with unique "shell@pearls" structure for high performance supercapacitors. 2017 , 354, 116-123	28
1515	3D Porous Graphene Nanostructure from a Simple, Fast, Scalable Process for High Performance Flexible Gel-Type Supercapacitors. 2017 , 5, 4457-4467	28
1514	Three dimensional few-layer porous carbon nanosheets towards oxygen reduction. 2017 , 211, 148-156	79
1513	Biomass to porous carbon in one step: directly activated biomass for high performance CO ₂ storage. 2017 , 5, 12330-12339	89
1512	Fabrication of boron-doped porous carbon with termite nest shape via natural macromolecule and borax to obtain lithium-sulfur/sodium-ion batteries with improved rate performance. 2017 , 244, 86-95	20
1511	Sugar-derived disordered carbon nano-sheets as high-performance electrodes in sodium-ion batteries. 2017 , 41, 4286-4290	11

1510	Characterization, preparation, and reaction mechanism of hemp stem based activated carbon. 2017 , 7, 1628-1633	38
1509	Porous 3D carbon decorated Fe ₃ O ₄ nanocomposite electrode for highly symmetrical supercapacitor performance. 2017 , 7, 23030-23040	31
1508	Multifunctional bio carbon: a coir pith waste derived electrode for extensive energy storage device applications. 2017 , 7, 23663-23670	19
1507	Oxygen-rich hierarchical porous carbon made from pomelo peel fiber as electrode material for supercapacitor. 2017 , 416, 918-924	80
1506	Nitrogen and oxygen co-doped carbon networks with a mesopore-dominant hierarchical porosity for high energy and power density supercapacitors. 2017 , 238, 310-318	106
1505	Biomass-derived carbon/silicon three-dimensional hierarchical nanostructure as anode material for lithium ion batteries. 2017 , 96, 340-346	29
1504	Engineering the Pores of Biomass-Derived Carbon: Insights for Achieving Ultrahigh Stability at High Power in High-Energy Supercapacitors. 2017 , 10, 2805-2815	75
1503	Interconnected open-channel carbon nanosheets derived from pineapple leaf fiber as a sustainable active material for supercapacitors. 2017 , 104, 13-20	53
1502	An investigation into the rapid removal of tetracycline using multilayered graphene-phase biochar derived from waste chicken feather. 2017 , 603-604, 39-48	81
1501	High electrochemical performance of hierarchical porous activated carbon derived from lightweight cork (<i>Quercus suber</i>). 2017 , 52, 10600-10613	27
1500	Superior supercapacitors based on nitrogen and sulfur co-doped hierarchical porous carbon: Excellent rate capability and cycle stability. 2017 , 358, 112-120	69
1499	Biomass-derived carbon electrode materials for supercapacitors. 2017 , 1, 1265-1281	198
1498	Fabrication of porous carbon microspheres with numerous spherical microstructures directly from waste <i>Camellia oleifera</i> shells and their application in sustained-release of 5-fluorouracil. 2017 , 250, 195-202	17
1497	Asymmetric supercapacitor based on activated expanded graphite and pinecone tree activated carbon with excellent stability. 2017 , 207, 417-426	58
1496	Synthesis of layered microporous carbons from coal tar by directing, space-confinement and self-sacrificed template strategy for supercapacitors. 2017 , 246, 634-642	42
1495	Synergistic effect of potassium hydroxide and steam co-treatment on the functionalization of carbon nanotubes applied as basic support in the Pd-catalyzed liquid-phase oxidation of ethanol. 2017 , 121, 452-462	5
1494	Unrivaled combination of surface area and pore volume in micelle-templated carbon for supercapacitor energy storage. 2017 , 5, 13511-13525	51
1493	Flute type micropores activated carbon from cotton stalk for high performance supercapacitors. 2017 , 359, 88-96	113

1492	Porous nitrogen-doped carbon derived from biomass for electrocatalytic reduction of CO ₂ to CO. 2017 , 245, 561-568	49
1491	Effect of KOH etching on the structure and electrochemical performance of SiOC anodes for lithium-ion batteries. 2017 , 245, 287-295	35
1490	Nitrogen/sulfur co-doping assisted chemical activation for synthesis of hierarchical porous carbon as an efficient electrode material for supercapacitors. 2017 , 246, 59-67	38
1489	Activated graphene with tailored pore structure parameters for long cycle-life lithium-sulfur batteries. 2017 , 10, 4305-4317	45
1488	Coffee-Driven Green Activation of Cellulose and Its Use for All-Paper Flexible Supercapacitors. 2017 , 9, 22568-22577	30
1487	Preparation of high performance supercapacitor materials by fast pyrolysis of corn gluten meal waste. 2017 , 1, 891-898	24
1486	Preparation of a magnetic porous carbon with hierarchical structures from waste biomass for the extraction of some carbamates. 2017 , 40, 2451-2458	12
1485	Hydrophobic N-doped porous biocarbon from dopamine for high selective adsorption of p-Xylene under humid conditions. 2017 , 317, 660-672	57
1484	Fabrication and activation of carbon nanotube foam and its application in energy storage. 2017 , 236, 343-350	15
1483	High-surface-area and high-nitrogen-content carbon microspheres prepared by a pre-oxidation and mild KOH activation for superior supercapacitor. 2017 , 118, 699-708	85
1482	Bacterial-cellulose-derived interconnected meso-microporous carbon nanofiber networks as binder-free electrodes for high-performance supercapacitors. 2017 , 352, 34-41	88
1481	Preparation of biomass-activated porous carbons derived from torrefied torrefaction shell for high-performance supercapacitor. 2017 , 21, 2241-2249	23
1480	Pushing the Energy Output and Cyclability of Sodium Hybrid Capacitors at High Power to New Limits. 2017 , 7, 1602654	94
1479	Manganese dioxide/biocarbon composites with superior performance in supercapacitors. 2017 , 791, 159-166	18
1478	Gas adsorption properties of graphene-based materials. 2017 , 243, 46-59	75
1477	Azide-assisted hydrothermal synthesis of N-doped mesoporous carbon cloth for high-performance symmetric supercapacitor employing LiClO ₄ as electrolyte. 2017 , 98, 58-65	15
1476	Cation exchanged MOF-derived nitrogen-doped porous carbons for CO ₂ capture and supercapacitor electrode materials. 2017 , 5, 9544-9552	120
1475	Beyond KOH activation for the synthesis of superactivated carbons from hydrochar. 2017 , 114, 50-58	154

1474	Hierarchical porous carbon with ordered straight micro-channels templated by continuous filament glass fiber arrays for high performance supercapacitors. 2017 , 5, 1516-1525	54
1473	Influence of the biomass components on the pore formation of activated carbon. 2017 , 97, 53-64	70
1472	Response surface methodology approach for optimization of Cu 2+ , Ni 2+ and Pb 2+ adsorption using KOH-activated carbon from banana peel. 2017 , 6, 209-217	123
1471	Nitrogen-Doped Porous Carbon Nanosheets from Eco-Friendly Eucalyptus Leaves as High Performance Electrode Materials for Supercapacitors and Lithium Ion Batteries. 2017 , 23, 3683-3690	102
1470	Natural biomass-derived carbons for electrochemical energy storage. 2017 , 88, 234-241	103
1469	Designing micro- and mesoporous carbon networks by chemical activation of organic resins. 2017 , 23, 303-312	5
1468	Porous carbons derived from hypercrosslinked porous polymers for gas adsorption and energy storage. 2017 , 114, 608-618	140
1467	Surface modifications of carbonaceous materials for carbon dioxide adsorption: A review. 2017 , 71, 214-234	76
1466	Sulfur impregnated N, P co-doped hierarchical porous carbon as cathode for high performance Li-S batteries. 2017 , 341, 165-174	125
1465	Biomass-Derived Activated Porous Carbon from Rice Straw for a High-Energy Symmetric Supercapacitor in Aqueous and Non-aqueous Electrolytes. 2017 , 31, 977-985	208
1464	Structure-dependent electrode properties of hollow carbon micro-fibers derived from Platanus fruit and willow catkins for high-performance supercapacitors. 2017 , 5, 2580-2591	50
1463	Capacitive performance of porous carbon nanosheets derived from biomass cornstalk. 2017 , 7, 1067-1074	30
1462	Incorporating Pyrrolic and Pyridinic Nitrogen into a Porous Carbon made from C Molecules to Obtain Superior Energy Storage. 2017 , 29, 1603414	132
1461	Molecular-Level Design of Hierarchically Porous Carbons Codoped with Nitrogen and Phosphorus Capable of In Situ Self-Activation for Sustainable Energy Systems. 2017 , 13, 1602010	37
1460	Coir Pith Derived Bio-carbon: Demonstration of Potential Anode Behavior in Lithium-ion Batteries. 2017 , 225, 143-150	32
1459	Biomass derived carbon for energy storage devices. 2017 , 5, 2411-2428	474
1458	Hierarchically Porous Carbon Derived from PolyHIPE for Supercapacitor and Deionization Applications. 2017 , 33, 13364-13375	49
1457	Tremella-like N,O-codoped hierarchically porous carbon nanosheets as high-performance anode materials for high energy and ultrafast Na-ion capacitors. 2017 , 41, 285-292	124

1456	Synthesis of Nitrogen-Doped Porous Carbon Spheres with Improved Porosity toward the Electrocatalytic Oxygen Reduction. 2017 , 5, 11105-11116	45
1455	Pitfalls in the characterisation of the hydrogen sorption properties of materials. 2017 , 42, 29320-29343	28
1454	Nitrogen-Doped Hierarchical Porous Carbon Framework Derived from Waste Pig Nails for High-Performance Supercapacitors. 2017 , 4, 3181-3187	32
1453	Lignocellulosic biomass-derived, graphene sheet-like porous activated carbon for electrochemical supercapacitor and catechin sensing. 2017 , 7, 45668-45675	68
1452	Nitrogen-Doped Porous Carbons Derived from Triarylisocyanurate-Cored Polymers with High CO ₂ Adsorption Properties. 2017 , 31, 12477-12486	17
1451	Hydrothermally Activated Graphene Fiber Fabrics for Textile Electrodes of Supercapacitors. 2017 , 11, 11056-11065	87
1450	Cigarette butt-derived carbons have ultra-high surface area and unprecedented hydrogen storage capacity. 2017 , 10, 2552-2562	115
1449	Highly Conductive Hierarchical C/C Composites to Eliminate Conductive Agent in EDLC Electrodes. 2017 , 4, 2793-2800	11
1448	The structure evolution of biochar from biomass pyrolysis and its correlation with gas pollutant adsorption performance. 2017 , 246, 101-109	122
1447	Nitrogen and Sulfur Doped Mesoporous Carbons, Prepared from Templating Silica, as Interesting Material for Supercapacitors. 2017 , 2, 7082-7090	17
1446	Highly Microporous Nitrogen-doped Carbon Synthesized from Azine-linked Covalent Organic Framework and its Supercapacitor Function. 2017 , 23, 17504-17510	50
1445	Capacitive Properties of the Binder-Free Electrode Prepared from Carbon Derived from Cotton and Reduced Graphene Oxide. 2017 , 35, 1844-1852	4
1444	Multimodal porous carbon derived from ionic liquids: correlation between pore sizes and ionic clusters. 2017 , 9, 14672-14681	23
1443	Porous high specific surface area-activated carbon with co-doping N, S and P for high-performance supercapacitors. 2017 , 7, 43780-43788	27
1442	Synthesis of microporous organic polymers via radical polymerization of fumaronitrile with divinylbenzene. 2017 , 8, 6106-6111	14
1441	Metal-carbon C/Co nanocomposites based on activated pyrolyzed polyacrylonitrile and cobalt particles. 2017 , 91, 1766-1770	10
1440	A smart bottom-up strategy for the fabrication of porous carbon nanosheets containing rGO for high-rate supercapacitors in organic electrolyte. 2017 , 252, 109-118	16
1439	Manufacturing a super-active carbon using fast pyrolysis char from biomass and correlation study on structural features and phenol adsorption. 2017 , 7, 42192-42202	26

1438	Recent advances in chemical methods for activating carbon and metal oxide based electrodes for supercapacitors. 2017 , 5, 17151-17173	110
1437	Revitalizing carbon supercapacitor electrodes with hierarchical porous structures. 2017 , 5, 17705-17733	332
1436	Recent developments of post-modification of biochar for electrochemical energy storage. 2017 , 246, 224-233	97
1435	Fabrication and electrochemical properties of a graphene-enhanced hierarchical porous network of Fe ₃ O ₄ /carbon nanobelts. 2017 , 248, 150-159	14
1434	Large-size graphene-like porous carbon nanosheets with controllable N-doped surface derived from sugarcane bagasse pith/chitosan for high performance supercapacitors. 2017 , 123, 290-298	110
1433	Facile synthesis of microporous carbonaceous materials derived from a covalent triazine polymer for CO ₂ capture. 2017 , 26, 965-971	23
1432	One-stage Template-free KOH Activation for Mesopore-enriched Carbons and Their Application in CO ₂ Capture. 2017 , 64, 1041-1047	4
1431	Route to sustainable lithium-sulfur batteries with high practical capacity through a fluorine free polysulfide catholyte and self-standing Carbon Nanofiber membranes. 2017 , 7, 6327	16
1430	Nanoporous carbon derived from agro-waste pineapple leaves for supercapacitor electrode. 2017 , 8, 035017	22
1429	Tailoring the Sodium Storage Performance of Carbon Nanowires by Microstructure Design and Surface Modification with N, O and S Heteroatoms. 2017 , 4, 2877-2883	17
1428	Chemically Activated Covalent Triazine Frameworks with Enhanced Textural Properties for High Capacity Gas Storage. 2017 , 9, 30679-30685	50
1427	Fabrication of interconnected mesoporous carbon sheets for use in high-performance supercapacitors. 2017 , 32, 213-220	18
1426	Fabrication of Yolk-Shell Cu@C Nanocomposites as High-Performance Catalysts in Oxidative Carbonylation of Methanol to Dimethyl Carbonate. 2017 , 12, 481	10
1425	Highly porous carbon with large electrochemical ion absorption capability for high-performance supercapacitors and ion capacitors. 2017 , 28, 445406	13
1424	Orange Peel Derived Activated Carbon for Fabrication of High-Energy and High-Rate Supercapacitors. 2017 , 2, 11384-11392	64
1423	Tailoring pseudocapacitive materials from a mechanistic perspective. 2017 , 6, 211-229	86
1422	Efficient CO ₂ Capture by Nitrogen-Doped Biocarbons Derived from Rotten Strawberries. 2017 , 56, 14115-14127	47
1421	Effects of organic and inorganic metal salts on thermogravimetric pyrolysis of biomass components. 2017 , 34, 3077-3084	19

1420	Self-crosslink assisted synthesis of 3D porous branch-like Fe ₃ O ₄ /C hybrids for high-performance lithium/sodium-ion batteries. 2017 , 7, 50307-50316	19
1419	Facile synthesis of hierarchical N-doped hollow porous carbon whiskers with ultrahigh surface area via synergistic inner-outer activation for casein hydrolysate adsorption. 2017 , 5, 9211-9218	10
1418	Nanofillers in the electrolytes of dye-sensitized solar cells A short review. 2017 , 353, 58-112	37
1417	Role of localized graphitization on the electrical and magnetic properties of activated carbon. 2017 , 100, 5151-5161	10
1416	Electrocapacitive properties of nitrogen-containing porous carbon derived from cellulose. 2017 , 360, 634-641	27
1415	Hierarchical glucose-based carbons prepared by soft templating and sol-gel process for CO ₂ capture. 2017 , 24, 1637-1645	5
1414	Starch Derived Porous Carbon Nanosheets for High-Performance Photovoltaic Capacitive Deionization. 2017 , 51, 9244-9251	93
1413	Oxygen and nitrogen co-doped porous carbons with finely-layered schistose structure for high-rate-performance supercapacitors. 2017 , 122, 538-546	73
1412	Alkaline lignin derived porous carbon as an efficient scaffold for lithium-selenium battery cathode. 2017 , 122, 547-555	50
1411	Facile Synthesis of Defect-Rich and S/N Co-Doped Graphene-Like Carbon Nanosheets as an Efficient Electrocatalyst for Primary and All-Solid-State Zn-Air Batteries. 2017 , 9, 24545-24554	65
1410	Enhanced electrochemical performance of straw-based porous carbon fibers for supercapacitor. 2017 , 21, 3449-3458	13
1409	Potassium vapor assisted preparation of highly graphitized hierarchical porous carbon for high rate performance supercapacitors. 2017 , 361, 70-79	35
1408	Biogas-slurry derived mesoporous carbon for supercapacitor applications. 2017 , 5, 126-137	27
1407	Fabrication of highly porous carbon as sulfur hosts using waste green tea bag powder for lithium-sulfur batteries. 2017 , 43, 2836-2841	12
1406	Framework-mediated synthesis of highly microporous onion-like carbon: energy enhancement in supercapacitors without compromising power. 2017 , 5, 2519-2529	31
1405	Biomass-derived renewable carbon materials for electrochemical energy storage. 2017 , 5, 69-88	299
1404	Hierarchical porous carbon derived from soybean hulls as a cathode matrix for lithium-sulfur batteries. 2017 , 695, 2246-2252	48
1403	Novel electrospun polybenzimidazole fibers and yarns from ethanol/potassium hydroxide solution. 2017 , 187, 89-93	10

1402	Chemical Blowing Approach for Ultramicroporous Carbon Nitride Frameworks and Their Applications in Gas and Energy Storage. 2017 , 27, 1604658	77
1401	High capacitive performance of hollow activated carbon fibers derived from willow catkins. 2017 , 394, 569-577	59
1400	Nitrogen-rich porous carbon anode with high performance for sodium ion batteries. 2017 , 24, 189-192	6
1399	Carbonization and activation for production of activated carbon fibers. 2017 , 61-139	12
1398	Tea-leaves based nitrogen-doped porous carbons for high-performance supercapacitors electrode. 2017 , 21, 525-535	42
1397	A novel synthesis of hierarchical porous carbons from interpenetrating polymer networks for high performance supercapacitor electrodes. 2017 , 111, 667-674	140
1396	Low-cost hierarchical micro/macroporous carbon foams as efficient sorbents for CO ₂ capture. 2017 , 156, 235-245	22
1395	Influence of texture in hybrid carbon-phosphomolybdic acid materials on their performance as electrodes in supercapacitors. 2017 , 111, 74-82	14
1394	Hydrogen adsorption on activated carbons prepared from olive waste: effect of activation conditions on uptakes and adsorption energies. 2017 , 24, 1-11	18
1393	Construction of hierarchical porous graphene-carbon nanotubes hybrid with high surface area for high performance supercapacitor applications. 2017 , 21, 563-571	12
1392	Hierarchical graphene network sandwiched by a thin carbon layer for capacitive energy storage. 2017 , 113, 100-107	36
1391	Nitrogen and sulfur co-doped porous carbon as an efficient electrocatalyst as platinum or a hoax for oxygen reduction reaction in acidic environment PEM fuel cell?. 2017 , 119, 1075-1083	31
1390	Highly porous MnO _x prepared from Mn(C ₂ O ₄)·2H ₂ O as an adsorbent for the removal of SO ₂ and NH ₃ . 2017 , 244, 192-198	9
1389	Unique porous carbon constructed by highly interconnected nanowalls for high-performance supercapacitor in organic electrolyte. 2017 , 189, 50-53	15
1388	Preparation and characterization of porous carbons from ion-exchange resins with different degree of cross-linking for hydrogen storage. 2017 , 45, 164-170	9
1387	An activated carbon derived from tobacco waste for use as a supercapacitor electrode material. 2017 , 32, 592-599	57
1386	Highly porous graphitic biomass carbon as advanced electrode materials for supercapacitors. 2017 , 19, 4132-4140	573
1385	The effect of nitrogen and/or boron doping on the electrochemical performance of non-caking coal-derived activated carbons for use as supercapacitor electrodes. 2017 , 32, 442-450	26

1384	A Scientometric Analysis of Aerogel Research in 1996-2015. 2017 ,	
1383	Light-induced Remediation of Environmental Pollutants by Highly Adsorptive Activated Carbon Centered TiO ₂ Nanoflowers. 2017 , 215, 152-162	2
1382	Effect of Relative Humidity on Adsorption Breakthrough of CO ₂ on Activated Carbon Fibers. 2017 , 10,	30
1381	Orange-Peel-Derived Carbon: Designing Sustainable and High-Performance Supercapacitor Electrodes. 2017 , 3, 25	30
1380	Status of Biomass Derived Carbon Materials for Supercapacitor Application. 2017 , 2017, 1-14	51
1379	Synthesis of a Novel Interconnected 3D Pore Network Algal Biochar Constituting Iron Nanoparticles Derived from a Harmful Marine Biomass as High-Performance Asymmetric Supercapacitor Electrodes. 2018 , 6, 4746-4758	78
1378	Biomass derived nitrogen-doped hierarchical porous carbon sheets for supercapacitors with high performance. 2018 , 523, 133-143	107
1377	General aspects in the use of graphenes in catalysis. 2018 , 5, 363-378	33
1376	CO ₂ capture using N-containing nanoporous activated carbon obtained from argan fruit shells. 2018 , 6, 1995-2002	45
1375	Ultrathin Hierarchical Porous Carbon Nanosheets for High-Performance Supercapacitors and Redox Electrolyte Energy Storage. 2018 , 30, e1705789	231
1374	Chemical Modification Graphene as a High Performance Anode Material for Lithium-Ion Batteries. 2018 , 913, 779-785	
1373	Influence of K ₃ Fe(CN) ₆ on the electrochemical performance of carbon derived from waste tyres by K ₂ CO ₃ activation. 2018 , 209, 262-270	13
1372	Lightweight and High-Performance Microwave Absorbing Heteroatom-Doped Carbon Derived from Chicken Feather Fibers. 2018 , 6, 5381-5393	120
1371	Constructing graphene-like nanosheets on porous carbon framework for promoted rate performance of Li-ion and Na-ion storage. 2018 , 271, 92-102	31
1370	High porous bio-nanocarbons prepared by carbonization and NaOH activation of polysaccharides for electrode material of EDLC. 2018 , 118, 137-143	13
1369	Defective N/S-Codoped 3D Cheese-Like Porous Carbon Nanomaterial toward Efficient Oxygen Reduction and Zn-Air Batteries. 2018 , 14, e1800563	105
1368	Graphitized Nitrogen-Doped Ordered Mesoporous Carbon Derived from Ionic Liquid; Catalytic Performance Toward ORR. 2018 , 9, 632-639	10
1367	Structural engineering of N/S co-doped carbon material as high-performance electrode for supercapacitors. 2018 , 274, 389-399	31

1366	One-step synthesis of flour-derived functional nanocarbons with hierarchical pores for versatile environmental applications. 2018 , 347, 432-439	42
1365	Suppressing the Polysulfide Shuttle Effect by Heteroatom-Doping for High-Performance LithiumSulfur Batteries. 2018 , 6, 7545-7557	46
1364	3D interconnected hierarchical porous N-doped carbon constructed by flake-like nanostructure with Fe/FeC for efficient oxygen reduction reaction and supercapacitor. 2018 , 10, 9252-9260	69
1363	Biogenic Synthesis of Pd-Based Nanoparticles with Enhanced Catalytic Activity. 2018 , 1, 1467-1475	16
1362	Design of graphitic carbon nitride nanowires with captured mesoporous carbon spheres for EDLC electrode materials. 2018 , 24, 3957-3965	15
1361	Influence of Interactions among Three Biomass Components on the Pyrolysis Behavior. 2018 , 57, 5241-5249	42
1360	Hierarchical Porous Carbons Derived from Renewable Poplar Anthers for High-Performance Supercapacitors. 2018 , 5, 1451-1458	16
1359	Rational synthesis of porous carbon nanocages and their potential application in high rate supercapacitors. 2018 , 815, 166-174	15
1358	Synthesis of porous carbon spheres derived from lignin through a facile method for high performance supercapacitors. 2018 , 34, 2189-2196	39
1357	Self-Biotemplate Preparation of Hierarchical Porous Carbon with Rational Mesopore Ratio and High Oxygen Content for an Ultrahigh Energy-Density Supercapacitor. 2018 , 6, 7138-7150	73
1356	Graphene-like porous carbon from sheet cellulose as electrodes for supercapacitors. 2018 , 346, 104-112	48
1355	Ultrathin all-solid-state supercapacitor devices based on chitosan activated carbon electrodes and polymer electrolytes. 2018 , 273, 392-401	70
1354	Humic acid-derived hierarchical porous carbon preparation using vacuum freeze-drying for electric double layer capacitors. 2018 , 65, 835-840	3
1353	Robust Production of Ultrahigh Surface Area Carbon Sheets for Energy Storage. 2018 , 14, e1800133	16
1352	Three-dimensional porous carbon aerogels from sodium carboxymethyl cellulose/poly(vinyl alcohol) composite for high-performance supercapacitors. 2018 , 25, 1679-1689	12
1351	Apple tree branches derived activated carbons for the removal of Eblocker atenolol. 2018 , 345, 669-678	32
1350	Paulownia tomentosa derived porous carbon with enhanced sodium storage. 2018 , 33, 1236-1246	9
1349	One-step synthesis of ultra-high surface area nanoporous carbons and their application for electrochemical energy storage. 2018 , 131, 193-200	81

1348	Spray drying assisted synthesis of porous carbons from whey powders for capacitive energy storage. 2018 , 147, 308-316	13
1347	Microwave assisted synthesis of camellia oleifera shell-derived porous carbon with rich oxygen functionalities and superior supercapacitor performance. 2018 , 436, 934-940	74
1346	High Density and Super Ultra-Microporous-Activated Carbon Macrospheres with High Volumetric Capacity for CO ₂ Capture. 2018 , 2, 1700115	21
1345	Chemically Exfoliating Biomass into a Graphene-like Porous Active Carbon with Rational Pore Structure, Good Conductivity, and Large Surface Area for High-Performance Supercapacitors. 2018 , 8, 1702545	251
1344	A Thermally Decomposable Template Route to Synthesize Nitrogen-Doped Wrinkled Carbon Nanosheets as Highly Efficient and Stable Electrocatalysts for the Oxygen Reduction Reaction. 2018 , 6, 1951-1960	14
1343	Nitrogen and phosphorus co-doped carbon hollow spheres derived from polypyrrole for high-performance supercapacitor electrodes. 2018 , 437, 169-175	56
1342	Carbon and Mo transformations during the synthesis of mesoporous Mo ₂ C/carbon catalysts by carbothermal hydrogen reduction. 2018 , 258, 818-824	21
1341	N, P-doped mesoporous carbon from onion as trifunctional metal-free electrode modifier for enhanced power performance and capacitive manner of microbial fuel cells. 2018 , 262, 297-305	28
1340	One-step synthesis of 3D sulfur-doped porous carbon with multilevel pore structure for high-rate supercapacitors. 2018 , 43, 1596-1605	38
1339	A nanoporous carbon material coated onto steel wires for solid-phase microextraction of chlorobenzenes prior to their quantitation by gas chromatography. 2017 , 185, 56	21
1338	Porous carbon electrodes with battery-capacitive storage features for high performance Li-ion capacitors. 2018 , 12, 145-152	129
1337	Nitrogen-doped porous microsphere carbons derived from glucose and aminourea for high-performance supercapacitors. 2018 , 318, 150-156	18
1336	Optimization of the Pore Structure of Biomass-Based Carbons in Relation to Their Use for CO Capture under Low- and High-Pressure Regimes. 2018 , 10, 1623-1633	93
1335	Electrochemical analysis of nanoporous carbons derived from activation of polypyrrole for stable supercapacitors. 2018 , 53, 5229-5241	23
1334	Biosourced Foam-Like Activated Carbon Materials as High-Performance Supercapacitors. 2018 , 2, 1700123	26
1333	Post iron-doping of activated nitrogen-doped carbon spheres as a high-activity oxygen reduction electrocatalyst. 2018 , 13, 142-150	29
1332	N-Doping and Defective Nanographitic Domain Coupled Hard Carbon Nanoshells for High Performance Lithium/Sodium Storage. 2018 , 28, 1706294	268
1331	Epipremnum aureum derived porous carbon for high-performance supercapacitors. 2018 , 216, 158-161	1

1330	Mangosteen peel-derived porous carbon: synthesis and its application in the sulfur cathode for lithium sulfur battery. 2018 , 53, 11062-11077	33
1329	Defect-rich N-doped porous carbon derived from soybean for high rate lithium-ion batteries. 2018 , 451, 298-305	41
1328	An efficient, recoverable solid base catalyst of magnetic bamboo charcoal: Preparation, characterization, and performance in biodiesel production. 2018 , 127, 531-538	32
1327	Heteroatom doping and activation of carbon nanofibers enabling ultrafast and stable sodium storage. 2018 , 276, 304-310	27
1326	Nitrogen and oxygen dual-doped porous carbons prepared from pea protein as electrode materials for high performance supercapacitors. 2018 , 43, 18549-18558	51
1325	3-dimensional interconnected framework of N-doped porous carbon based on sugarcane bagasse for application in supercapacitors and lithium ion batteries. 2018 , 390, 186-196	66
1324	Facile one-step synthesis of three-dimensional freestanding hierarchical porous carbon for high energy density supercapacitors in organic electrolyte. 2018 , 818, 51-57	19
1323	Charge and Potential Balancing for Optimized Capacitive Deionization Using Lignin-Derived, Low-Cost Activated Carbon Electrodes. 2018 , 11, 2101-2113	47
1322	Sustainable synthesis of nanoporous carbons from agricultural waste and their application for solid-phase microextraction of chlorinated organic pollutants.. 2018 , 8, 15915-15922	2
1321	Microporous carbons derived from melamine and isophthalaldehyde: One-pot condensation and activation in a molten salt medium for efficient gas adsorption. 2018 , 8, 6092	25
1320	Nitrogen-doped hierarchically porous carbon derived from cherry stone as a catalyst support for purification of terephthalic acid. 2018 , 447, 57-62	14
1319	A mesoporous metal-organic framework: Potential advances in selective dye adsorption. 2018 , 750, 360-367	49
1318	Nanoporous carbons derived from poplar catkins for high performance supercapacitors with a redox active electrolyte of p-phenylenediamine. 2018 , 748, 473-480	11
1317	Conversion of Agricultural Waste Streams into Value Added Products. 2018 , 3, 2137-2142	1
1316	N-enriched multilayered porous carbon derived from natural casings for high-performance supercapacitors. 2018 , 444, 661-671	34
1315	Activated carbon production: Recycling KOH to minimize waste. 2018 , 220, 238-240	13
1314	H3PO4 solution hydrothermal carbonization combined with KOH activation to prepare argy wormwood-based porous carbon for high-performance supercapacitors. 2018 , 444, 105-117	57
1313	Facile synthesis of hierarchical porous carbon from crude biomass for high-performance solid-phase microextraction. 2018 , 1548, 1-9	9

1312	Adsorptive removal of wide range of pharmaceutical and personal care products from water by using metal azolate framework-6-derived porous carbon. 2018 , 343, 447-454	92
1311	Characterization of coal gasification slag-based activated carbon and its potential application in lead removal. 2018 , 39, 382-391	22
1310	Insight into the high-efficient functionalization of carbon nanotubes by advanced oxidation using peroxomonosulfate. 2018 , 260, 24-29	6
1309	Natural nanomaterial as hard template for scalable synthesizing holey carbon naonsheet/nanotube with in-plane and out-of-plane pores for electrochemical energy storage. 2018 , 29, 641-644	3
1308	Self-templated synthesis of interconnected porous carbon nanosheets with controllable pore size: Mechanism and electrochemical capacitor application. 2018 , 261, 119-125	17
1307	TMA and H ₂ S gas removals using metal loaded on rice husk activated carbon for indoor air purification. 2018 , 213, 186-194	56
1306	Valorisation of waste rice straw for the production of highly effective carbon based adsorbents for dyes removal. 2018 , 172, 1128-1139	109
1305	Hierarchical porous carbon activated by CaCO ₃ from pigskin collagen for CO ₂ and H ₂ adsorption. 2018 , 260, 172-179	24
1304	Anti-Freezing Aqueous Electrolyte for High-Performance Co(OH) ₂ Supercapacitors at 80 °C. 2018 , 6, 605-612	20
1303	Ultrahigh level nitrogen/sulfur co-doped carbon as high performance anode materials for lithium-ion batteries. 2018 , 126, 85-92	73
1302	In-situ space-confined catalysis for fabricating 3D mesoporous graphene and their capacitive properties. 2018 , 433, 568-574	12
1301	Porous nanoplatelets wrapped carbon aerogels by pyrolysis of regenerated bamboo cellulose aerogels as supercapacitor electrodes. 2018 , 180, 385-392	51
1300	Synthesis and characterization of activated carbon/conducting polymer composite electrode for supercapacitor applications. 2018 , 29, 914-921	16
1299	Adsorption and correlations of selected aromatic compounds on a KOH-activated carbon with large surface area. 2018 , 618, 1677-1684	52
1298	Creation of Triple Hierarchical Micro-Meso-Macroporous N-doped Carbon Shells with Hollow Cores Toward the Electrocatalytic Oxygen Reduction Reaction. 2018 , 10, 3	79
1297	Popcorn Inspired Porous Macrocellular Carbon: Rapid Puffing Fabrication from Rice and Its Applications in LithiumSulfur Batteries. 2018 , 8, 1701110	317
1296	One-step activation towards spontaneous etching of hollow and hierarchical porous carbon nanospheres for enhanced pollutant adsorption and energy storage. 2018 , 220, 533-541	66
1295	Preparation of porous carbon spheres from 2-keto-l-gulonic acid mother liquor by oxidation and activation for electric double-layer capacitor application. 2018 , 513, 20-27	14

1294	Baby Diaper-Inspired Construction of 3D Porous Composites for Long-Term Lithium-Ion Batteries. 2018 , 28, 1704440	60
1293	Biochar-based carbons with hierarchical micro-meso-macro porosity for high rate and long cycle life supercapacitors. 2018 , 376, 82-90	177
1292	Converting biomass waste into microporous carbon with simultaneously high surface area and carbon purity as advanced electrochemical energy storage materials. 2018 , 436, 486-494	35
1291	Ordered Mesoporous Carbons with High Micropore Content and Tunable Structure Prepared by Combined Hard and Salt Templating as Electrode Materials in Electric Double-Layer Capacitors. 2018 , 2, 1700128	36
1290	Morphologically tailored activated carbon derived from waste tires as high-performance anode for Li-ion battery. 2018 , 48, 1-13	28
1289	Fallen leaves derived honeycomb-like porous carbon as a metal-free and low-cost counter electrode for dye-sensitized solar cells with excellent tri-iodide reduction. 2018 , 513, 843-851	26
1288	Fabrication and enhanced supercapacitive performance of sulfur and nitrogen co-doped porous graphene. 2018 , 29, 3867-3875	1
1287	Facile One-Pot Synthesis of Activated Porous Biocarbons with a High Nitrogen Content for CO ₂ Capture. 2018 , 4, 281-290	27
1286	Porous carbon with interpenetrating framework from Osmanthus flower as electrode materials for high-performance supercapacitor. 2018 , 6, 258-265	23
1285	Improving the surface properties of municipal solid waste-derived pyrolysis biochar by chemical and thermal activation: Optimization of process parameters and environmental application. 2018 , 72, 255-264	34
1284	Selenium-infiltrated metal-organic framework-derived porous carbon nanofibers comprising interconnected bimodal pores for LiFe batteries with high capacity and rate performance. 2018 , 6, 1028-1036	74
1283	Repurposing paper by-product liginosulfonate as a sulfur donor/acceptor for high performance lithium-sulfur batteries. 2018 , 2, 422-429	18
1282	Ultra-microporous N-doped carbon from polycondensed framework precursor for CO ₂ adsorption. 2018 , 257, 19-26	40
1281	Biomass-derived nitrogen-doped porous carbons with tailored hierarchical porosity and high specific surface area for high energy and power density supercapacitors. 2018 , 427, 807-813	131
1280	Pore enlargement of carbonaceous materials by metal oxide catalysts in the presence of steam: Influence of metal oxide size and porosity of starting material. 2018 , 256, 91-101	10
1279	Design and fabrication of nanoporous adsorbents for the removal of aromatic sulfur compounds. 2018 , 6, 23978-24012	93
1278	Introducing catalytic gasification into chemical activation for the conversion of natural coal into hierarchically porous carbons with broadened pore size for enhanced supercapacitive utilization.. 2018 , 8, 37880-37889	8
1277	Rice Husk-Derived Activated Carbons for Adsorption of Phenolic Compounds in Water. 2018 , 2, 1800043	7

1276	A facile synthesis tool of nanoporous carbon for promising H ₂ , CO ₂ , and CH ₄ sorption capacity and selective gas separation. 2018 , 6, 23087-23100	29
1275	Nanoporous Carbon Synthesis: An Old Story with Exciting New Chapters. 2018 ,	10
1274	Adsorption of Methylene Blue on Cardboard-Based Activated Carbons Treated with Zinc Chloride and Potassium Hydroxide. 2018 , 28, 157-161	1
1273	Synthesis of porous graphene-like carbon materials for high-performance supercapacitors from petroleum pitch using nano-CaCO ₃ as a template. 2018 , 33, 316-323	20
1272	Synthesis of S, N co-doped porous carbons from polybenzoxazine for CO ₂ capture. 2018 , 33, 392-401	8
1271	Preparation and catalytic study of novel highly porous metal-carbon nanocomposites based on bimetallic Co-Ru nanoparticles. 2018 , 1134, 012012	
1270	The centrifugally constructed and thermally activated three-dimensional graphene toward a binder-free highly performed anode of the lithium-ion battery. 2018 , 20, 1	
1269	NO adsorption and temperature programmed desorption on K ₂ CO ₃ modified activated carbons. 2018 , 25, 2339-2348	4
1268	Fast Dehydrogenation of Formic Acid over Palladium Nanoparticles Immobilized in Nitrogen-Doped Hierarchically Porous Carbon. 2018 , 8, 12041-12045	100
1267	Biochars and Their Use as Transesterification Catalysts for Biodiesel Production: A Short Review. 2018 , 8, 562	38
1266	A Green Route to High-Surface Area Carbons by Chemical Activation of Biomass-Based Products with Sodium Thiosulfate. 2018 , 6, 16323-16331	42
1265	Green and scalable synthesis of 3D porous carbons microstructures as electrode materials for high rate capability supercapacitors.. 2018 , 8, 40950-40961	1
1264	Carbon-Based Nanostructured Materials for Energy and Environmental Remediation Applications. 2018 , 369-392	16
1263	Ultrathin Honeycomb-like Carbon as Sulfur Host Cathode for High Performance LithiumSulfur Batteries. 2018 , 1, 7076-7084	11
1262	Homologous Hierarchical Porous Hollow Carbon Spheres Anode and Bowls Cathode Enabling High-Energy Sodium-Ion Hybrid Capacitors. 2018 , 10, 44483-44493	47
1261	Rose-derived 3D carbon nanosheets for high cyclability and extended voltage supercapacitors. 2018 , 291, 287-296	62
1260	K-looping catalytic pyrolysis of unaltered and pelletized biomass for in situ tar reduction and porous carbon production. 2018 , 2, 2770-2777	9
1259	Synthesis and Supercapacitance of Co ₃ O ₄ Supported on Porous Carbon Derived from Wheat Flour. 2018 , 7, M161-M165	5

1258	Design and Preparation of Biomass-Derived Carbon Materials for Supercapacitors: A Review. 2018 , 4, 53	35
1257	On the mechanistic role of nitrogen-doped carbon cathodes in lithium-sulfur batteries with low electrolyte weight portion. 2018 , 54, 116-128	53
1256	Platinum-free electrocatalysts for oxygen reduction reaction: Fe-Nx modified mesoporous carbon prepared from biosources. 2018 , 402, 434-446	25
1255	Selective deoxygenation of carbonyl groups at room temperature and atmospheric hydrogen pressure over nitrogen-doped carbon supported Pd catalyst. 2018 , 368, 207-216	27
1254	Rational Design of 1D Partially Graphitized N-Doped Hierarchical Porous Carbon with Uniaxially Packed Carbon Nanotubes for High-Performance Lithium-Ion Batteries. 2018 , 12, 11106-11119	23
1253	Synthesis of N-doped nanoporous carbon from walnut shell for enhancing CO ₂ adsorption capacity and separation. 2018 , 6, 6653-6663	32
1252	Cross-Coupled Macro-Mesoporous Carbon Network toward Record High Energy-Power Density Supercapacitor at 4 V. 2018 , 28, 1806153	109
1251	Electrochemical performance of polyacrylonitrile-derived activated carbon prepared via IR pyrolysis. 2018 , 96, 98-102	7
1250	Nitrogen-doped hierarchical porous carbon using biomass-derived activated carbon/carbonized polyaniline composites for supercapacitor electrodes. 2018 , 827, 213-220	60
1249	Carbon-Based Dual-Ion Battery with Enhanced Capacity and Cycling Stability. 2018 , 5, 3612-3618	38
1248	Promising post-consumer PET-derived activated carbon electrode material for non-enzymatic electrochemical determination of carbofuran hydrolysate. 2018 , 8, 13151	9
1247	Valorization of lignin waste: high electrochemical capacitance of lignin-derived carbons in aqueous and ionic liquid electrolytes. 2018 , 6, 18701-18711	19
1246	Activated Amorphous Carbon With High-Porosity Derived From Camellia Pollen Grains as Anode Materials for Lithium/Sodium Ion Batteries. 2018 , 6, 366	28
1245	Low Pressure Methane Storage in Pinecone-Derived Activated Carbons. 2018 , 32, 10891-10897	8
1244	Tridimensional few-layer graphene-like structures from sugar-salt mixtures as high-performance supercapacitor electrodes. 2018 , 10, 118-125	2
1243	Bioinspired Highly Crumpled Porous Carbons with Multidirectional Porosity for High Rate Performance Electrochemical Supercapacitors. 2018 , 6, 12716-12726	25
1242	Fe ₂ O ₃ -N-doped Honeycomb-like Porous Carbon Derived from Nature Silk Sericin as Electrocatalysts for Oxygen Evolution Reaction. 2018 , 644, 1103-1107	11
1241	Zingiber striolatum diels derived O/N dual-doped porous carbon for high performance oxygen reduction reaction and energy storage. 2018 , 43, 18270-18278	5

1240	Heteroatom doped porous carbon sheets derived from protein-rich wheat gluten for supercapacitors: The synergistic effect of pore properties and heteroatom on the electrochemical performance in different electrolytes. 2018 , 401, 375-385	38
1239	Renewable lignin-based carbon with a remarkable electrochemical performance from potassium compound activation. 2018 , 124, 747-754	42
1238	Tuning the Electrochemical Properties of Nitrogen-Doped Carbon Aerogels in a Blend of Ammonia and Nitrogen Gases. 2018 , 1, 5043-5053	15
1237	Porous Activated Carbons Derived from <i>Pleurotus eryngii</i> for Supercapacitor Applications. 2018 , 2018, 1-10	8
1236	Sustainable Utilization of Biomass Refinery Wastes for Accessing Activated Carbons and Supercapacitor Electrode Materials. 2018 , 11, 3599-3608	55
1235	Temporal-stability of plasma functionalized vertical graphene electrodes for charge storage. 2018 , 401, 37-48	23
1234	Nitrogen- and sulfur-enriched porous carbon from waste watermelon seeds for high-energy, high-temperature green ultracapacitors. 2018 , 6, 17751-17762	30
1233	Graphene@hierarchical meso-/microporous carbon for ultrahigh energy density lithium-ion capacitors. 2018 , 281, 459-465	33
1232	Synthesis of Mesoporous ZIF-8 Nanoribbons and their Conversion into Carbon Nanoribbons for High-Performance Supercapacitors. 2018 , 24, 11185-11192	20
1231	Highly activated porous carbon with 3D microspherical structure and hierarchical pores as greatly enhanced cathode material for high-performance supercapacitors. 2018 , 391, 162-169	53
1230	Active-defective activated carbon/MoS ₂ composites for supercapacitor and hydrogen evolution reactions. 2018 , 453, 132-140	76
1229	Influence of NH concentration on biomass nitrogen-enriched pyrolysis. 2018 , 263, 350-357	44
1228	Plasma-tuneable oxygen functionalization of vertical graphenes enhance electrochemical capacitor performance. 2018 , 14, 297-305	40
1227	Cost-efficient magnetic nanoporous carbon derived from citrus peel for the selective adsorption of seven insecticides. 2018 , 41, 2924	3
1226	Large-scale synthesis of porous carbon via one-step CuCl ₂ activation of rape pollen for high-performance supercapacitors. 2018 , 6, 12046-12055	85
1225	A low cost ultra-microporous carbon scaffold with confined chain-like sulfur molecules as a superior cathode for lithium-sulfur batteries. 2018 , 2, 2187-2196	12
1224	Conjugated polymer-based carbonaceous films as binder-free carbon electrodes in supercapacitors.. 2018 , 8, 19512-19523	3
1223	Spinel MnCo O Nanoparticles Supported on Three-Dimensional Graphene with Enhanced Mass Transfer as an Efficient Electrocatalyst for the Oxygen Reduction Reaction. 2018 , 11, 2730-2736	57

1222	Graphitization induced by KOH etching for the fabrication of hierarchical porous graphitic carbon sheets for high performance supercapacitors. 2018 , 6, 14170-14177	44
1221	Synergetic Effect of Cobalt-Incorporated Acid-Activated GAC for Adsorptive Desulfurization of DBT under Mild Conditions. 2018 , 63, 2975-2985	10
1220	Mechanochemical synthesis of porous carbon at room temperature with a highly ordered sp ² microstructure. 2018 , 139, 325-333	27
1219	Tris(2,2'-bipyridyl)ruthenium(II) electrogenerated chemiluminescence ethanol biosensor based on ionic liquid doped titania-Nafion composite film. 2018 , 142, 62-69	10
1218	Reactor Design and Kinetic Study on Adsorption/Desorption of CO and Cl ₂ for Industrial Phosgene Synthesis. 2018 , 90, 1513-1519	8
1217	Polyaniline-derived porous carbons: Remarkable adsorbent for removal of various hazardous organics from both aqueous and non-aqueous media. 2018 , 360, 163-171	36
1216	Nitrogen and cobalt-doped porous biocarbon materials derived from corn stover as efficient electrocatalysts for aluminum-air batteries. 2018 , 162, 453-459	23
1215	Development of rice straw activated carbon and its utilizations. 2018 , 6, 5221-5229	25
1214	Immense Microporous Carbon@Hydroquinone Metamorphosed from Nonporous Carbon As a Supercapacitor with Remarkable Energy Density and Cyclic Stability. 2018 , 6, 11367-11379	13
1213	Designing nanographitic domains in N-doped porous carbon foam for high performance supercapacitors. 2018 , 139, 1152-1159	52
1212	Synthesis of Boron and Nitrogen Codoped Porous Carbon Foam for High Performance Supercapacitors. 2018 , 6, 11441-11449	53
1211	Layer-Stacking Activated Carbon Derived from Sunflower Stalk as Electrode Materials for High-Performance Supercapacitors. 2018 , 6, 11397-11407	69
1210	The preparation of porous carbon spheres with hierarchical pore structure and the application for high-performance supercapacitors. 2018 , 53, 13987-14000	10
1209	Hydrothermal Synthesized and Alkaline Activated Carbons Prepared from Glucose and Fructose Detailed Characterization and Testing in Heavy Metals and Methylene Blue Removal. 2018 , 8, 246	7
1208	Three-Dimensional Honeycomb-Like Porous Carbon with Both Interconnected Hierarchical Porosity and Nitrogen Self-Doping from Cotton Seed Husk for Supercapacitor Electrode. 2018 , 8,	36
1207	Triazine-based hyper-cross-linked polymers with inorganic-organic hybrid framework derived porous carbons for CO ₂ capture. 2018 , 353, 1-14	61
1206	Red Phosphorus Nanoparticle@3D Interconnected Carbon Nanosheet Framework Composite for Potassium-Ion Battery Anodes. 2018 , 14, e1802140	164
1205	KOH-activated rice husk char via CO ₂ pyrolysis for phenol adsorption. 2018 , 9, 397-405	40

1204	RNA as a Precursor to N-Doped Activated Carbon. 2018 , 1, 3815-3825	2
1203	Supercapacitors from high fructose corn syrup-derived activated carbons. 2018 , 9, 406-415	44
1202	Highly Uniform Carbon Sheets with Orientation-Adjustable Ordered Mesopores. 2018 , 12, 5436-5444	68
1201	Nitrogen-doped biomass-based hierarchical porous carbon with large mesoporous volume for application in energy storage. 2018 , 348, 850-859	78
1200	Revisit to the correlation of surface characteristic nature with performance of N-enriched carbon-based supercapacitor. 2018 , 140, 68-76	11
1199	Sodium-ion diffusion and charge transfer kinetics of sodium-ion hybrid capacitors using bio-derived hierarchical porous carbon. 2018 , 286, 55-64	13
1198	KOH Activated Nitrogen Doped Hard Carbon Nanotubes as High Performance Anode for Lithium Ion Batteries. 2018 , 14, 755-765	8
1197	From porous aromatic frameworks to nanoporous carbons: A novel solid-phase microextraction coating. 2018 , 190, 327-334	6
1196	New Application of Waste Citrus Maxima Peel-Derived Carbon as an Oxygen Electrode Material for Lithium Oxygen Batteries. 2018 , 10, 32058-32066	21
1195	Production of high surface area activated carbons for energy storage applications using agricultural biomass residue from a C5-biorefinery. 2018 ,	2
1194	In Situ Synthesis of Nitrogen-Enriched Activated Carbons from Procambarus clarkii Shells with Enhanced CO ₂ Adsorption Performance. 2018 , 32, 9701-9710	17
1193	Simple method to construct three-dimensional porous carbon for electrochemical energy storage. 2018 , 10, 15842-15853	8
1192	Hierarchical porous carbon/selenium composites derived from abandoned paper cup as Li-Se battery cathodes. 2018 , 84, 15-22	2
1191	Carbonized Design of Hierarchical Porous Carbon/Fe ₃ O ₄ @Fe Derived from Loofah Sponge to Achieve Tunable High-Performance Microwave Absorption. 2018 , 6, 11801-11810	160
1190	Three-dimensional porous carbon frameworks derived from mangosteen peel waste as promising materials for CO ₂ capture and supercapacitors. 2018 , 27, 204-216	42
1189	Edge Defect Engineering of Nitrogen-Doped Carbon for Oxygen Electrocatalysts in Zn-Air Batteries. 2018 , 10, 29448-29456	83
1188	Hierarchical porous carbon materials derived from waste lentinus edodes by a hybrid hydrothermal and molten salt process for supercapacitor applications. 2018 , 462, 862-871	76
1187	Porosity-Engineered Carbon Materials for Supercapacitors: The Template Effect and the Improved Capacitive Performances by the Addition of Redox Additive. 2018 , 13, 1850096	1

1186	Three-Dimensional Porous Carbon Derived from Polyindole Hollow Nanospheres for High-Performance Supercapacitor Electrode. 2018 , 1, 4572-4579	18
1185	A simple flash carbonization route for conversion of biomass to porous carbons with high CO ₂ storage capacity. 2018 , 6, 12393-12403	54
1184	Nitrogen-doped hierarchical porous carbon materials derived from diethylenetriaminepentaacetic acid (DTPA) for supercapacitors. 2018 , 34, 2384-2391	11
1183	Zinc acetate activation-enhanced performance of hollow nano silica/carbon composite nanofibers for lithium-sulfur batteries. 2018 , 823, 287-295	6
1182	Nitrogen-doped hierarchically porous carbonaceous nanotubes for lithium ion batteries. 2018 , 352, 964-971	20
1181	Towards enhanced energy density of graphene-based supercapacitors: Current status, approaches, and future directions. 2018 , 396, 182-206	79
1180	Fabrication of high-quality or highly porous graphene sheets from exfoliated graphene oxide via reactions in alkaline solutions. 2018 , 138, 219-226	20
1179	A novel and efficient approach to prepare few-layer graphene with high quality. 2018 , 228, 183-186	2
1178	Novel Hollow Graphene Flowers Synthesized by Cu-Assisted Chemical Vapor Deposition. 2018 , 5, 1800347	4
1177	Nanostructured porous carbons with high rate cycling and floating performance for supercapacitor application. 2018 , 8, 055208	13
1176	Multiple active components synergistically driven heteroatom-doped porous carbon as high-performance counter electrode in dye-sensitized solar cells. 2019 , 31, 89-94	9
1175	Activated bio-chars derived from rice husk via one- and two-step KOH-catalyzed pyrolysis for phenol adsorption. 2019 , 646, 1567-1577	154
1174	Multifunctional structural supercapacitor based on graphene and magnesium phosphate cement. 2019 , 53, 719-730	13
1173	Multiscale Porous Carbon Nanomaterials for Applications in Advanced Rechargeable Batteries. 2019 , 2, 9-36	41
1172	Nanocarbons and Their Composite Materials as Electrocatalyst for Metal-Air Battery and Water Splitting. 2019 , 455-496	
1171	Imidazole-based hyper-cross-linked polymers derived porous carbons for CO ₂ capture. 2019 , 275, 131-138	46
1170	Preparation of Highly Porous Carbon through Slow Oxidative Torrefaction, Pyrolysis, and Chemical Activation of Lignocellulosic Biomass for High-Performance Supercapacitors. 2019 , 33, 9309-9329	21
1169	Promotion effect of KOH surface etching on sucrose-based hydrochar for acetone adsorption. 2019 , 496, 143617	14

1168	High-capacitance activated bio-carbons with controlled pore size distribution for sustainable energy storage. 2019 , 438, 226969	10
1167	Biopolymer phytagel-derived porous nanocarbon as efficient electrode material for high-performance symmetric solid-state supercapacitors. 2019 , 80, 258-264	12
1166	Nitrogen-doped nanoporous carbons derived from lignin for high CO ₂ capacity. 2019 , 29, 289-296	8
1165	Li-Ion Capacitor Integrated with Nano-network-Structured Ni/NiO/C Anode and Nitrogen-Doped Carbonized Metal-Organic Framework Cathode with High Power and Long Cyclability. 2019 , 11, 30694-30702	33
1164	Block copolymer-based porous carbons for supercapacitors. 2019 , 7, 23476-23488	46
1163	Rapid microwave activation of waste palm into hierarchical porous carbons for supercapacitors using biochars from different carbonization temperatures as catalysts.. 2019 , 9, 19441-19449	12
1162	Multidimensional Co-Exfoliated Activated Graphene-Based Carbon Hybrid for Supercapacitor Electrode. 2019 , 7, 1900578	5
1161	Carbon beads with a well-defined pore structure derived from ion-exchange resin beads. 2019 , 7, 18285-18294	9
1160	Micro- and Mesoporous Carbons Derived from KOH Activations of Polycyanurates with High Adsorptions for CO and Iodine. 2019 , 4, 12018-12027	4
1159	Valorizing low cost and renewable lignin as hard carbon for Na-ion batteries: Impact of lignin grade. 2019 , 153, 634-647	37
1158	One step N-doping and activation of biomass carbon at low temperature through NaNH ₂ : An effective approach to CO ₂ adsorbents. 2019 , 33, 320-329	48
1157	Fabricating controllable hierarchical pores on smooth carbon sheet for synthesis of supercapacitor materials. 2019 , 168, 108806	13
1156	Experimental studies on high-quality bio-oil production via pyrolysis of Azolla by the use of a three metallic/modified pyrochar catalyst. 2019 , 291, 121802	21
1155	Boosting the performance of supercapacitors based hierarchically porous carbon from natural Juncus effuses by incorporation of MnO ₂ . 2019 , 805, 822-830	19
1154	Activated carbon with exceptionally high surface area and tailored nanoporosity obtained from natural anthracite and its use in supercapacitors. 2019 , 436, 226882	26
1153	Porous carbon spheres from poly(4-ethylstyrene-co-divinylbenzene): role of ZnCl ₂ and KOH agents in affecting porosity, surface area and mechanical properties. 2019 , 288, 109605	16
1152	Biomass-Derived Carbon: A Value-Added Journey Towards Constructing High-Energy Supercapacitors in an Asymmetric Fashion. 2019 , 12, 4353-4382	32
1151	Pre-mixed precursors for modulating the porosity of carbons for enhanced hydrogen storage: towards predicting the activation behaviour of carbonaceous matter. 2019 , 7, 17466-17479	17

1150	A universal strategy towards porous carbons with ultrahigh specific surface area for high-performance symmetric supercapacitor applications. 2019 , 30, 13636-13646	4
1149	Micro-Mesoporous Carbon Materials Prepared from the Hogweed (Heracleum) Stalks as Electrode Materials for Supercapacitors. 2019 , 55, 265-271	5
1148	Polyacrylonitrile-Based Nitrogen-Doped Carbon Materials with Different Micro-morphology Prepared by Electrostatic Field for Supercapacitors. 2019 , 48, 5264-5272	4
1147	Platinum supported cellulose-based carbon with oxygen-containing functional groups for benzyl alcohol oxidation. 2019 , 135, 109095	4
1146	Extraordinary Thickness-Independent Electrochemical Energy Storage Enabled by Cross-Linked Microporous Carbon Nanosheets. 2019 , 11, 26946-26955	35
1145	Highly Porous Willow Wood-Derived Activated Carbon for High-Performance Supercapacitor Electrodes. 2019 , 4, 18108-18117	62
1144	3D hierarchical porous carbon derived from direct carbonization and in-situ chemical activation of potatoes toward high-performance supercapacitors. 2019 , 6, 115615	9
1143	Porous Carbons Derived from Collagen-Enriched Biomass: Tailored Design, Synthesis, and Application in Electrochemical Energy Storage and Conversion. 2019 , 29, 1905095	60
1142	Direct Microwave Conversion from Lignin to Micro/Meso/Macroporous Carbon for High-Performance Symmetric Supercapacitors. 2019 , 6, 4789-4800	10
1141	Temperature-dependent performance of carbon-based supercapacitors with water-in-salt electrolyte. 2019 , 441, 227220	29
1140	Optimized Synthesis of Ultrahigh-Surface-Area and Oxygen-Doped Carbon Nanobelts for High Cycle-Stability Lithium-Sulfur Batteries. 2019 , 166, A3464-A3473	3
1139	Hierarchical porous structured N-doped activated carbon derived from Helianthus Annuus seed as a cathode material for hybrid supercapacitor device. 2019 , 256, 126617	17
1138	A strategy of making waste profitable: Nitrogen doped cigarette butt derived carbon for high performance supercapacitors. 2019 , 189, 116241	24
1137	Controlled Design of a Robust Hierarchically Porous and Hollow Carbon Fiber Textile for High-Performance Freestanding Electrodes. 2019 , 6, 1900762	23
1136	Nitrogen and Sulfur Co-Doped Graphene-Like Carbon from Industrial Dye Wastewater for Use as a High-Performance Supercapacitor Electrode. 2019 , 3, 1900043	9
1135	A Potassium Formate Activation Strategy for the Synthesis of Ultrathin Graphene-like Porous Carbon Nanosheets for Advanced Supercapacitor Applications. 2019 , 7, 18901-18911	30
1134	Sugarcane Biowaste-Derived Biochars as Capacitive Deionization Electrodes for Brackish Water Desalination and Water-Softening Applications. 2019 , 7, 18992-19004	26
1133	Natural biomass derived hard carbon and activated carbons as electrochemical supercapacitor electrodes. 2019 , 9, 16315	107

1132	Porous Carbon Hollow Rod for Supercapacitors with High Energy Density. 2019 , 58, 22124-22132	12
1131	Template-free synthesis of biomass-derived hierarchically mesoporous carbon with ultra-small FeNi nanoparticles for oxygen evolution reaction. 2019 , 44, 27806-27815	7
1130	IR radiation assisted preparation of KOH-activated polymer-derived carbon for methylene blue adsorption. 2019 , 7, 103514	21
1129	Efficient HO generation and electro-Fenton degradation of pollutants in microchannels of oxidized monolithic-porous-carbon cathode. 2019 , 80, 970-978	4
1128	Alkali-activated electrospun carbon nanofibers as an efficient bifunctional adsorbent for cationic and anionic dyes. 2019 , 582, 123835	20
1127	Synthesis and characterization of activated 3D graphene via catalytic growth and chemical activation for electrochemical energy storage in supercapacitors. 2019 , 324, 134878	21
1126	An Assembly and Interfacial Templating Route to Carbon Supercapacitors with Simultaneously Tailored Meso- and Microstructures. 2019 , 11, 43509-43519	3
1125	Structure, chemistry and physicochemistry of lignin for material functionalization. 2019 , 1, 1	11
1124	Direct conversion of biomass to nanoporous activated biocarbons for high CO ₂ adsorption and supercapacitor applications. 2019 , 497, 143722	62
1123	Rational design of tailored porous carbon-based materials for CO ₂ capture. 2019 , 7, 20985-21003	84
1122	One-Step Synthesis of an Adaptive Nanographene MOF: Adsorbed Gas-Dependent Geometrical Diversity. 2019 , 141, 15649-15655	14
1121	Biomass-Tar-Enabled Nitrogen-Doped Highly Ultramicroporous Carbon as an Efficient Absorbent for CO ₂ Capture. 2019 , 33, 8927-8936	10
1120	Hierarchically Porous Carbon Derived from Neolamarckia cadamba for Electrochemical Capacitance and Hydrogen Storage. 2019 , 7, 15385-15393	22
1119	Covalent triazine frameworks for carbon dioxide capture. 2019 , 7, 22848-22870	68
1118	Design and Synthesis of Highly Porous Activated Carbons from Sargassum as Advanced Electrode Materials for Supercapacitors. 2019 , 166, A3109-A3118	13
1117	Chitosan-based activated carbon as economic and efficient sustainable material for capacitive deionization of low salinity water.. 2019 , 9, 26676-26684	18
1116	Potassium-assisted carbonization of pyrrole to prepare nanorod-structured graphitic carbon with a high surface area for high-rate supercapacitors. 2019 , 155, 326-333	8
1115	Biomorphic carbon derived from corn husk as a promising anode materials for potassium ion battery. 2019 , 324, 134902	31

1114	Mesophase Pitch-Derived Carbons with High Electronic and Ionic Conductivity Levels for Electric Double-Layer Capacitors. 2019 , 4, 16925-16934	1
1113	Research on the Effect of Molten Salt Ultrasonic Composite Cleaning for Paint Removal. 2019 , 4, 17072-17082	4
1112	Ordered Nanoporous Carbons with Broadly Tunable Pore Size Using Bottlebrush Block Copolymer Templates. 2019 , 141, 17006-17014	39
1111	Activated carbons prepared by the KOH activation of a hydrochar from garlic peel and their CO ₂ adsorption performance. 2019 , 34, 247-257	73
1110	Effect of porosity enhancing agents on the electrochemical performance of high-energy ultracapacitor electrodes derived from peanut shell waste. 2019 , 9, 13673	39
1109	Porous tal palm carbon nanosheets: preparation, characterization and application for the simultaneous determination of dopamine and uric acid. 2019 , 1, 613-626	48
1108	From ZIF nanoparticles to hierarchically porous carbon: toward very high surface area and high-performance supercapacitor electrode materials. 2019 , 6, 32-39	13
1107	An ultra-small few-layer MoS ₂ -hierarchical porous carbon fiber composite obtained via nanocasting synthesis for sodium-ion battery anodes with excellent long-term cycling performance. 2019 , 48, 4149-4156	41
1106	Nontemplating Porous Carbon Material from Polyphosphamide Resin for Supercapacitors. 2019 , 12, 204-215	6
1105	The Capacitor Properties of KOH Activated Porous Carbon Beads Derived from Polyacrylonitrile. 2019 , 92, 832-839	3
1104	Sustainable supercapacitor electrodes produced by the activation of biomass with sodium thiosulfate. 2019 , 18, 356-365	75
1103	Effect of Self-Doped Heteroatoms in Biomass-Derived Activated Carbon for Supercapacitor Applications. 2019 , 4, 1586-1595	30
1102	Biomass-Derived N, O, and S-Tridoped Hierarchically Porous Carbon as a Cathode for Lithium-Sulfur Batteries. 2019 , 5, 612-618	12
1101	Oxygen-rich hierarchically porous carbons derived from pitch-based oxidized spheres for boosting the supercapacitive performance. 2019 , 540, 439-447	18
1100	Synthesis of rich fluffy porous carbon spheres by dissolution-reassembly method for supercapacitors. 2019 , 30, 3316-3324	4
1099	Multiscale honeycomb-structured activated carbon obtained from nitrogen-containing mandarin peel: high-performance supercapacitors with significant cycling stability. 2019 , 43, 3486-3492	13
1098	N-doped 3D porous carbon catalyst derived from biowaste Triarrhena sacchariflora panicle for oxygen reduction reaction. 2019 , 146, 70-77	22
1097	Facile synthesis of MnO nanorods grown on porous carbon for supercapacitor with enhanced electrochemical performance. 2019 , 540, 466-475	19

1096	Preparation of porous lignin-derived carbon/carbon nanotube composites by hydrophobic self-assembly and carbonization to enhance lithium storage capacity. 2019 , 303, 1-8	24
1095	Applications of lignin-derived catalysts for green synthesis. 2019 , 4, 210-244	49
1094	Ultrahigh adsorption of tetracycline on willow branch-derived porous carbons with tunable pore structure: Isotherm, kinetics, thermodynamic and new mechanism study. 2019 , 96, 473-482	19
1093	Ordered mesoporous carbons from lignin: a new class of biobased electrodes for supercapacitors. 2019 , 21, 550-559	79
1092	Carbon Dioxide Adsorption on Porous and Functionalized Activated Carbon Fibers. 2019 , 9, 1977	45
1091	One-step nitrogen, boron codoping of porous carbons derived from pomelo peels for supercapacitor electrode materials. 2019 , 96, 176-181	21
1090	Porous Layered Carbon with Interconnected Pore Structure Derived from Reed Membranes for Supercapacitors. 2019 , 7, 10742-10750	33
1089	Carbon-Support-Based Heterogeneous Nanocatalysts: Synthesis and Applications in Organic Reactions. 2019 , 8, 1263-1305	39
1088	New insights into the heat of adsorption of water, acetonitrile, and n-hexane in porous carbon with oxygen functional groups. 2019 , 552, 412-417	8
1087	N/O Codoped Porous Carbons with Layered Structure for High-Rate Performance Supercapacitors. 2019 , 7, 11219-11227	16
1086	Improved surface charge storage properties of Prosopis juliflora (pods) derived onion-like porous carbon through redox-mediated reactions for electric double layer capacitors. 2019 , 492, 896-908	14
1085	Synthesis of Diverse Green Carbon Nanomaterials through Fully Utilizing Biomass Carbon Source Assisted by KOH. 2019 , 11, 24205-24211	27
1084	A Novel Porous N- and S-Self-Doped Carbon Derived from Chinese Rice Wine Lees as High-Performance Electrode Materials in a Supercapacitor. 2019 ,	8
1083	Waste phenolic resin derived activated carbon by microwave-assisted KOH activation and application to dye wastewater treatment. 2019 , 8, 408-415	5
1082	Tailoring porous carbon aerogels from bamboo cellulose fibers for high-performance supercapacitors. 2019 , 26, 1851-1860	8
1081	Chitin and Chitosan Structurally Related Precursors of Dissimilar Hard Carbons for Na-Ion Battery. 2019 , 2, 4841-4852	20
1080	Effects of the Chemical Structure, Surface, and Micropore Properties of Activated and Oxidized Black Carbon on the Sorption and Desorption of Phenanthrene. 2019 , 53, 7683-7693	20
1079	A long life sodium-selenium cathode by encapsulating selenium into N-doped interconnected carbon aerogels. 2019 , 11, 11671-11678	16

1078	Kombucha scoby-based carbon as a green scaffold for high-capacity cathode in lithium-sulfur batteries. 2019 , 25, 4637-4650	10
1077	Electrochemical and microbiological characterization of single carbon granules in a multi-anode microbial fuel cell. 2019 , 435, 126514	20
1076	Fabrication of Hierarchical Porous Carbon Frameworks from Metal-Ion-Assisted Step-Activation of Biomass for Supercapacitors with Ultrahigh Capacitance. 2019 , 7, 10763-10772	40
1075	Promising Trade-Offs Between Energy Storage and Load Bearing in Carbon Nanofibers as Structural Energy Storage Devices. 2019 , 29, 1901425	26
1074	Microporous Organic Polymer-Derived Nitrogen-Doped Porous Carbon Spheres for Efficient Capacitive Energy Storage. 2019 , 6, 3327-3336	14
1073	A sustainable approach to hierarchically porous carbons from tannic acid and their utilization in supercapacitive energy storage systems. 2019 , 7, 14280-14290	46
1072	Sol-gel assisted chemical activation for nitrogen doped porous carbon. 2019 , 286, 18-24	12
1071	Wettability-Driven Assembly of Electrochemical Microsupercapacitors. 2019 , 11, 20905-20914	24
1070	Synthesis of Rice Husk Derived Activated Mesoporous Carbon Immobilized Palladium Hybrid Nano-Catalyst for Ligand-Free Mizoroki-Heck/Suzuki/Sonogashira Cross-Coupling Reactions. 2019 , 4, 5577-5584	12
1069	Heteroatom-doped porous carbon with tunable pore structure and high specific surface area for high performance supercapacitors. 2019 , 314, 173-187	34
1068	Effect of chemical activation on the cellular structure of biopitch-derived green carbon foam. 2019 , 96, 58-66	8
1067	Pyrolysis of Chinese chestnut shells: Effects of temperature and Fe presence on product composition. 2019 , 287, 121444	22
1066	Facile Fabrication of Oxidized Lignin-Based Porous Carbon Spheres for Efficient Removal of Pb ²⁺ . 2019 , 4, 5251-5257	3
1065	Meso-/microporous carbon as an adsorbent for enhanced performance in solid-phase microextraction of chlorobenzenes. 2019 , 681, 392-399	12
1064	Sulfur and nitrogen dual-doped porous carbon nanosheet anode for sodium ion storage with a self-template and self-porogen method. 2019 , 481, 473-483	10
1063	A simple and universal method for preparing N, S co-doped biomass derived carbon with superior performance in supercapacitors. 2019 , 309, 34-43	39
1062	Mesopore-Rich Activated Carbons for Electrical Double-Layer Capacitors by Optimal Activation Condition. 2019 , 9,	9
1061	Direct conversion of waste tires into three-dimensional graphene. 2019 , 23, 499-507	35

1060	Polyacetylene carbon materials: facile preparation using AlCl ₃ catalyst and excellent electrochemical performance for supercapacitors.. 2019 , 9, 11986-11995	3
1059	Facile preparation of three-dimensional honeycomb nitrogen-doped carbon materials for supercapacitor applications. 2019 , 34, 1200-1209	5
1058	Microwave-Assisted Activation of Waste Cocoa Pod Husk by H ₃ PO ₄ and KOH Comparative Insight into Textural Properties and Pore Development. 2019 , 4, 7088-7095	18
1057	Sustainable Salt Template-Assisted Chemical Activation for the Production of Porous Carbons with Enhanced Power Handling Ability in Supercapacitors. 2019 , 2, 701-711	22
1056	Preinserted Li metal porous carbon nanotubes with high Coulombic efficiency for lithium-ion battery anodes. 2019 , 373, 78-85	15
1055	CO ₂ Storage on Nanoporous Carbons. 2019 , 287-330	6
1054	Cobalt disulfide-modified cellular hierarchical porous carbon derived from bovine bone for application in high-performance lithium-sulfur batteries. 2019 , 551, 219-226	21
1053	Converting eggplant biomass into multifunctional porous carbon electrodes for self-powered capacitive deionization. 2019 , 5, 1054-1063	10
1052	Tremella-like nitrogen-doped microporous carbon derived from housefly larvae for efficient encapsulation of small S ₂ molecules in Li-S batteries. 2019 , 6, 085509	1
1051	Effect of activating agents on the structure and capacitance performance of tofu derived porous carbon. 2019 , 30, 10274-10283	4
1050	Nanoporous Materials for Gas Storage. 2019 ,	9
1049	Porous carbon derived from Artocarpus heterophyllus peels for capacitive deionization electrodes. 2019 , 147, 582-593	31
1048	The template effect of silica in rice husk for efficient synthesis of the activated carbon based electrode material. 2019 , 789, 777-784	17
1047	Performance enhancement of a supercapacitor negative electrode based on loofah sponge derived oxygen rich carbon through encapsulation of MoO ₃ nanoflowers. 2019 , 3, 1248-1257	19
1046	Large-scale production of nitrogen- and oxygen-containing activated carbon microspheres for supercapacitors. 2019 , 66, 1284-1289	1
1045	Hierarchical porous biomass carbon derived from cypress coats for high energy supercapacitors. 2019 , 30, 7324-7336	12
1044	Facile synthesis of hierarchical mesopore-rich activated carbon with excellent capacitive performance. 2019 , 546, 101-112	15
1043	Efficient carbon-based catalyst derived from natural cattail fiber for hydrogen evolution reaction. 2019 , 274, 207-214	15

1042	Electrospun melamine-blended activated carbon nanofibers for enhanced control of indoor CO ₂ . 2019 , 136, 47747	11
1041	Surface-Driven Energy Storage Behavior of Dual-Heteroatoms Functionalized Carbon Material. 2019 , 29, 1900941	47
1040	Constructed nitrogen and sulfur codoped multilevel porous carbon from lignin for high-performance supercapacitors. 2019 , 789, 435-442	24
1039	Toward high energy-density and long cycling-lifespan lithium ion capacitors: a 3D carbon modified low-potential Li ₂ TiSiO ₅ anode coupled with a lignin-derived activated carbon cathode. 2019 , 7, 8234-8244	38
1038	Spatially confining and chemically bonding amorphous red phosphorus in the nitrogen doped porous carbon tubes leading to superior sodium storage performance. 2019 , 7, 8581-8588	19
1037	Biomass-derived ultrathin mesoporous graphitic carbon nanoflakes as stable electrode material for high-performance supercapacitors. 2019 , 169, 107688	56
1036	Efficient, Sustainable, and Clean Energy Storage in Supercapacitors Using Biomass-Derived Carbon Materials. 2019 , 855-880	2
1035	Preparation of Hierarchical Porous Carbon Aerogels by Microwave Assisted Sol-Gel Process for Supercapacitors. 2019 , 11,	8
1034	Gas storage. 2019 , 341-382	1
1033	Effect of removing silica in rice husk for the preparation of activated carbon for supercapacitor applications. 2019 , 30, 1315-1319	21
1032	Ammonium Nitrate-Assisted Synthesis of Nitrogen/Sulfur-Codoped Hierarchically Porous Carbons Derived from Ginkgo Leaf for Supercapacitors. 2019 , 4, 5904-5914	17
1031	Hierarchical Biocarbons with Controlled Micropores and Mesopores Derived from Kapok Fruit Peels for High-Performance Supercapacitor Electrodes. 2019 , 4, 5991-5999	8
1030	High-performance supercapacitors based on hierarchically porous carbons with a three-dimensional conductive network structure. 2019 , 48, 5271-5284	7
1029	Novel strategy for preparation of highly porous carbon sheets derived from polystyrene for supercapacitors. 2019 , 95, 5-13	17
1028	Conversion of peanut biomass into electrocatalysts with vitamin B12 for oxygen reduction reaction in Zn-air battery. 2019 , 44, 11788-11796	22
1027	Solution Self-Assembly of an Alternating Copolymer toward Hollow Carbon Nanospheres with Uniform Micropores. 2019 , 8, 331-336	20
1026	Nitrogen-Doped Hollow Carbonized Cotton Fully Covered with Trumpet-Like Nanocarbons for High-Performance Supercapacitors. 2019 , 6, 1926-1929	8
1025	Properties of vaterite-containing tricalcium silicate composited graphene oxide for biomaterials. 2019 , 14, 045004	4

1024	The potassium hydroxide-urea synergy in improving the capacitive energy-storage performance of agar-derived carbon aerogels. 2019 , 147, 451-459	28
1023	Mass production of hierarchically porous carbon nanosheets by carbonizing "real-world" mixed waste plastics toward excellent-performance supercapacitors. 2019 , 87, 691-700	39
1022	Investigation of room temperature hydrogen storage in biomass derived activated carbon. 2019 , 789, 800-804	27
1021	Biomass-Derived Porous Carbon-Based Nanostructures for Microwave Absorption. 2019 , 11, 24	257
1020	Facile synthesis of porous carbons from silica-rich rice husk char for volatile organic compounds (VOCs) sorption. 2019 , 282, 294-300	88
1019	. 2019 ,	11
1018	Holey graphenes as the conductive additives for LiFePO ₄ batteries with an excellent rate performance. 2019 , 149, 257-262	29
1017	Synthesis of biomass tar-derived foams through spontaneous foaming for ultra-efficient herbicide removal from aqueous solution. 2019 , 673, 110-119	7
1016	Production, Characterization and Alternative Applications of Biochar. 2019 , 117-151	4
1015	Biomass-Derived Porous Carbon Materials for Supercapacitor. 2019 , 7, 274	93
1014	Impact of Carbon Properties on Mo ₂ C/Carbon Catalysts for the Hydrodeoxygenation of 4-Methylphenol. 2019 , 33, 4506-4514	6
1013	Hyperporous Carbon from Triptycene-Based Hypercrosslinked Polymer for Iodine Capture. 2019 , 6, 1900249	16
1012	The effect of ZnCl activation on microwave absorbing performance in walnut shell-derived nano-porous carbon.. 2019 , 9, 9718-9728	25
1011	One-step pyrolysis of lignin and polyvinyl chloride for synthesis of porous carbon and its application for toluene sorption. 2019 , 284, 325-332	50
1010	Hierarchical Porous Carbon Materials Derived from Kelp for Superior Capacitive Applications. 2019 , 7, 8735-8743	42
1009	Adsorptive and capacitive properties of the activated carbons derived from pig manure residues. 2019 , 7, 103066	10
1008	Activated carbon synthesized from biomass material using single-step KOH activation for adsorption of fluoride: Experimental and theoretical investigation. 2019 , 36, 551-562	18
1007	Porous three-dimensional carbon foams with interconnected microchannels for high-efficiency solar-to-vapor conversion and desalination. 2019 , 7, 13036-13042	70

1006	Synthesis and Design of Engineered Biochars as Electrode Materials in Energy Storage Systems. 2019 , 233-265	2
1005	Recent developments in biomass-derived carbon as a potential sustainable material for super-capacitor-based energy storage and environmental applications. 2019 , 140, 54-85	61
1004	Achieving gradient-pore-oriented graphite felt for vanadium redox flow batteries: meeting improved electrochemical activity and enhanced mass transport from nano- to micro-scale. 2019 , 7, 10962-10970	60
1003	Stable ionic-liquid-based symmetric supercapacitors from Capsicum seed-porous carbons. 2019 , 838, 119-128	27
1002	Pinecone-derived porous activated carbon for high performance all-solid-state electrical double layer capacitors fabricated with flexible gel polymer electrolytes. 2019 , 304, 94-108	34
1001	Construction of self-template 2D porous carbon nano sheets (2D PCNSs) from potassium gluconate (C ₆ H ₁₁ O ₇ K) for the efficient adsorption of dye contaminant. 2019 , 95, 660-668	1
1000	Confined growth of NiCo ₂ S ₄ nanosheets on carbon flakes derived from eggplant with enhanced performance for asymmetric supercapacitors. 2019 , 366, 550-559	118
999	A versatile Co-Activation strategy towards porous carbon nanosheets for high performance ionic liquid based supercapacitor applications. 2019 , 786, 109-117	15
998	Mechanism of biomass activation and ammonia modification for nitrogen-doped porous carbon materials. 2019 , 280, 260-268	58
997	Sponge-like N-doped carbon materials with Co-based nanoparticles derived from biomass as highly efficient electrocatalysts for the oxygen reduction reaction in alkaline media.. 2019 , 9, 4843-4848	15
996	Electrocatalytic oxygen reduction reaction activity of KOH etched carbon films as metal-free cathodic catalysts for fuel cells.. 2019 , 9, 2803-2811	2
995	Template-Induced Self-Activation Route for Hierarchical Porous Carbon Derived from Interpenetrating Polymer Networks as Electrode Material for Supercapacitors. 2019 , 6, 2648-2658	12
994	Enhanced N-doped Porous Carbon Derived from KOH-Activated Waste Wool: A Promising Material for Selective Adsorption of CO ₂ and CH ₄ . 2019 , 9,	43
993	Nature of improved double-layer capacitance by KOH activation on carbon nanotube-carbon nanofiber hierarchical hybrids. 2019 , 146, 610-617	31
992	Hierarchical porous carbon derived from waste amla for the simultaneous electrochemical sensing of multiple biomolecules. 2019 , 177, 529-540	21
991	Natural Plant Template-Derived Cellular Framework Porous Carbon as a High-Rate and Long-Life Electrode Material for Energy Storage. 2019 , 7, 5845-5855	40
990	Porous C/Ni composites derived from fluid coke for ultra-wide bandwidth electromagnetic wave absorption performance. 2019 , 366, 415-422	25
989	Oxygen-Functionalized Mesoporous Activated Carbons Derived from Casein and Their Superior CO ₂ Adsorption Capacity at Both Low- and High-Pressure Regimes. 2019 , 2, 1604-1613	29

988	Enhanced β -Terpineol Yield from β -Pinene Hydration via Synergistic Catalysis Using Carbonaceous Solid Acid Catalysts. 2019 , 58, 22202-22211	6
987	Visible Light-Emitting Diode Light-Driven CuFe@RCAC-Catalyzed Highly Selective Aerobic Oxidation of Alcohols and Oxidative Azo-Coupling of Anilines: Tandem One Pot Oxidation-Condensation to Imidazoles and Imines. 2019 , 4, 22445-22455	15
986	A universal KOH-free strategy towards nitrogen-doped carbon nanosheets for high-rate and high-energy storage devices. 2019 , 7, 26469-26478	22
985	Synthesis of high surface area porous carbon from anaerobic digestate and its electrochemical study as an electrode material for ultracapacitors.. 2019 , 9, 36343-36350	8
984	Recent development of biomass-derived carbons and composites as electrode materials for supercapacitors. 2019 , 3, 2543-2570	79
983	Preparation of Activated Carbon from Mangrove Waste by KOH Chemical Activation. 2019 , 543, 012087	1
982	Polymorphic cobalt diselenide as extremely stable electrocatalyst in acidic media via a phase-mixing strategy. 2019 , 10, 5338	40
981	Almond Shell-Derived Carbons under Low-Temperature Activation with Ultra-High Surface Area and Superior Performance for Supercapacitors. 2019 , 4, 12472-12478	2
980	Multifunctional flexible membranes from sponge-like porous carbon nanofibers with high conductivity. 2019 , 10, 5584	87
979	Porous Graphene-like Carbon from Fast Catalytic Decomposition of Biomass for Energy Storage Applications. 2019 , 4, 21446-21458	10
978	Activated Carbons from Hydrochars Prepared in Milk. 2019 , 9, 16956	4
977	Silkworm cocoon derived N, O-codoped hierarchical porous carbon with ultrahigh specific surface area for efficient capture of methylene blue with exceptionally high uptake: kinetics, isotherm, and thermodynamics.. 2019 , 9, 33872-33882	3
976	High-efficiency adsorption of tetracycline by the prepared waste collagen fiber-derived porous biochar.. 2019 , 9, 39355-39366	23
975	Preparation of KOH and H ₃ PO ₄ Modified Biochar and Its Application in Methylene Blue Removal from Aqueous Solution. 2019 , 7, 891	38
974	A robust strategy for the general synthesis of hierarchical carbons constructed by nanosheets and their application in high performance supercapacitor in ionic liquid electrolyte. 2019 , 141, 40-49	23
973	Bifunctional biomass-derived N, S dual-doped ladder-like porous carbon for supercapacitor and oxygen reduction reaction. 2019 , 773, 11-20	52
972	A waste-minimized biorefinery scenario for the hierarchical conversion of agricultural straw into prebiotic xylooligosaccharides, fermentable sugars and lithium-sulfur batteries. 2019 , 129, 269-280	23
971	One-step synthesis of robust carbon nanotube foams with ultrahigh surface area for high-performance lithium ion battery. 2019 , 62, 464-471	5

970	Morphology-controllable synthesis of nanocarbons and their application in advanced symmetric supercapacitor in ionic liquid electrolyte. 2019 , 473, 1014-1023	17
969	Optimized synthesis of banana peel derived porous carbon and its application in lithium sulfur batteries. 2019 , 112, 269-280	22
968	Carbon nanodot-decorated alveolate N, O, S tridoped hierarchical porous carbon as efficient electrocatalysis of polysulfide conversion for lithium-sulfur batteries. 2019 , 299, 600-609	37
967	N-Doped Hierarchical Porous Carbon with Open-Ended Structure for High-Performance Supercapacitors. 2019 , 6, 1696-1703	18
966	Preparation of hierarchically porous carbon from cellulose as highly efficient adsorbent for the removal of organic dyes from aqueous solutions. 2019 , 168, 298-303	16
965	Self-doped Sargassum spp. derived biocarbon as electrocatalysts for ORR in alkaline media. 2019 , 44, 12399-12408	16
964	Examination of High-Porosity Activated Carbon Obtained from Dehydration of White Sugar for Electrochemical Capacitor Applications. 2019 , 7, 537-546	26
963	Hierarchical porous carbon from semi-coke via a facile preparation method for p-nitrophenol adsorption. 2019 , 563, 50-58	19
962	A General Eco-friendly Production of Bio-sources Derived Micro-/Mesoporous Carbons with Robust Supercapacitive Behaviors and Sodium-Ion Storage. 2019 , 7, 779-789	33
961	Selective deposition of plasmonic copper on few layers graphene with specific defects for efficiently synchronous photocatalytic hydrogen production. 2019 , 143, 257-267	18
960	The preparation of biomass carbon materials and its energy storage research. 2019 , 25, 2543-2548	4
959	Chemically activated hydrochar as an effective adsorbent for volatile organic compounds (VOCs). 2019 , 218, 680-686	93
958	KOH activation of wax gourd-derived carbon materials with high porosity and heteroatom content for aqueous or all-solid-state supercapacitors. 2019 , 537, 569-578	54
957	Biomass-derived nanostructured porous carbons for sodium ion batteries: a review. 2019 , 34, 232-245	28
956	N-doped porous carbon derived from walnut shells with enhanced electrochemical performance for supercapacitor. 2019 , 12, 1950042	11
955	Facile Synthesis of Porous Carbon Via Self-Activation of Potassium Acetate for High-Performance Supercapacitor Electrodes with Excellent Cyclic Stability. 2019 , 7, 1801090	7
954	Molten salt conversion of polyethylene terephthalate waste into graphene nanostructures with high surface area and ultra-high electrical conductivity. 2019 , 476, 539-551	27
953	Tunable nitrogen-doped microporous carbons: Delineating the role of optimum pore size for enhanced CO ₂ adsorption. 2019 , 362, 731-742	65

- 952 Novel MOF-5 derived porous carbons as excellent adsorption materials for n-hexane. **2019**, 271, 354-360 27
- 951 All carbon based high energy lithium-ion capacitors from biomass: The role of crystallinity. **2019**, 414, 96-102 45
- 950 Spinel CoFe₂O₄ supported by three dimensional graphene as high-performance bi-functional electrocatalysts for oxygen reduction and evolution reaction. **2019**, 44, 1610-1619 43
- 949 Sal wood sawdust derived highly mesoporous carbon as prospective electrode material for vanadium redox flow batteries. **2019**, 834, 94-100 22
- 948 Detection of trace Cd²⁺, Pb²⁺ and Cu²⁺ ions via porous activated carbon supported palladium nanoparticles modified electrodes using SWASV. **2019**, 225, 433-442 29
- 947 FeO@C Core-Shell Carbon Hybrid Materials as Magnetically Separable Adsorbents for the Removal of Dibenzothiophene in Fuels. **2019**, 4, 1652-1661 17
- 946 Sulfur Cathodes. **2019**, 33-69
- 945 Amino-functionalized biomass-derived porous carbons with enhanced aqueous adsorption affinity and sensitivity of sulfonamide antibiotics. **2019**, 277, 128-135 52
- 944 Design and synthesis of mint leaf-like polyacrylonitrile and carbon nanosheets for flexible all-solid-state asymmetric supercapacitors. **2019**, 362, 600-608 14
- 943 K₂CO₃ activation enhancing the graphitization of porous lignin carbon derived from enzymatic hydrolysis lignin for high performance lithium-ion storage. **2019**, 785, 706-714 29
- 942 Nitrogen-containing activated carbon of improved electrochemical performance derived from cotton stalks using indirect chemical activation. **2019**, 540, 285-294 14
- 941 Graphene-Based Aerogels Derived from Biomass for Energy Storage and Environmental Remediation. **2019**, 7, 3772-3782 74
- 940 Highly mesoporous carbon flakes derived from a tubular biomass for high power electrochemical energy storage in organic electrolyte. **2019**, 223, 16-23 29
- 939 Biomass-derived porous carbon materials for advanced lithium sulfur batteries. **2019**, 34, 171-185 69
- 938 Chemically activated high grade nanoporous carbons from low density renewable biomass (Agave sisalana) for the removal of pharmaceuticals. **2019**, 536, 681-693 26
- 937 Almond-derived origami-like hierarchically porous and N/O co-functionalized carbon sheet for high-performance supercapacitor. **2019**, 467-468, 229-235 38
- 936 Three-dimensional graphene-like porous carbon nanosheets derived from molecular precursor for high-performance supercapacitor application. **2019**, 296, 8-17 67
- 935 A novel rod-like porous carbon with ordered hierarchical pore structure prepared from Al-based metal-organic framework without template as greatly enhanced performance for supercapacitor. **2019**, 409, 13-23 57

934	MOF-derived carbonaceous materials enriched with nitrogen: Preparation and applications in adsorption and catalysis. 2019 , 25, 88-111	118
933	Optimization of the pore structure of PAN-based carbon fibers for enhanced supercapacitor performances via electrospinning. 2019 , 161, 10-17	40
932	Hierarchically porous and heteroatom self-doped graphitic biomass carbon for supercapacitors. 2019 , 540, 88-96	61
931	Universal FeCl ₃ -Activating Strategy for Green and Scalable Fabrication of Sustainable Biomass-Derived Hierarchical Porous Nitrogen-Doped Carbons for Electrochemical Supercapacitors. 2019 , 2, 548-557	85
930	Facile synthesis of nitrogen-enriched nanoporous carbon materials for high performance supercapacitors. 2019 , 538, 199-208	34
929	Preparation and CO ₂ adsorption properties of porous carbon by hydrothermal carbonization of tree leaves. 2019 , 35, 875-884	31
928	Biomass-derived robust three-dimensional porous carbon for high volumetric performance supercapacitors. 2019 , 412, 1-9	100
927	Facile construction of hierarchically porous carbon nanofiber aerogel for high-performance supercapacitor. 2019 , 49, 241-250	13
926	Porous carbon nanoplate/Se composite derived from potassium citrate as high-performance Li-Se battery cathode: A study on structure-function relation. 2019 , 560, 69-77	10
925	Robust cyclic stability and high-rate asymmetric supercapacitor based on orange peel-derived nitrogen-doped porous carbon and intercrossed interlinked urchin-like NiCo ₂ O ₄ @3DNF framework. 2019 , 293, 84-96	42
924	Developing and characterization of lignin-based fibrous nanocarbon electrodes for energy storage devices. 2019 , 158, 239-248	23
923	High sulfur loading in activated bamboo-derived porous carbon as a superior cathode for rechargeable LiB batteries. 2019 , 12, 3517-3525	7
922	KHCO ₃ activated carbon microsphere as excellent electrocatalyst for VO ₂ ⁺ /VO ₂ ⁺ redox couple for vanadium redox flow battery. 2019 , 29, 103-110	26
921	Paper flower-derived porous carbons with high-capacitance by chemical and physical activation for sustainable applications. 2020 , 13, 2995-3007	19
920	Synthesis of High Grade Activated Carbons From Waste Biomass. 2020 , 584-595	3
919	Electrochemical Capacitors Based on Electrodes Made of Lignocellulosic Waste Materials. 2020 , 11, 3863-3871	11
918	Sustainable porous carbons from garlic peel biowaste and KOH activation with an excellent CO ₂ adsorption performance. 2020 , 10, 267-276	13
917	Cu ₂ O-incorporated MAF-6-derived highly porous carbons for the adsorptive denitrogenation of liquid fuel. 2020 , 381, 122675	14

916	Ultrasonic-assisted preparation and characterization of hierarchical porous carbon derived from garlic peel for high-performance supercapacitors. 2020 , 60, 104756	33
915	Confinement of sulfur in the micropores of honeycomb-like carbon derived from lignin for lithium-sulfur battery cathode. 2020 , 382, 122946	37
914	Conductive and nitrogen-enriched porous carbon nanostructure derived from poly (para-phenylenediamine) for energy conversion and storage applications. 2020 , 503, 144069	17
913	Heteroatoms in situ-doped hierarchical porous hollow-activated carbons for high-performance supercapacitor. 2020 , 30, 331-344	7
912	Study on carbon nanotubes and activated carbon hybrids by pyrolysis of coal. 2020 , 146, 104717	12
911	Gasification biochar from biowaste (food waste and wood waste) for effective CO adsorption. 2020 , 391, 121147	62
910	S-doped activated mesoporous carbon derived from the Borassus flabellifer flower as active electrodes for supercapacitors. 2020 , 240, 122151	26
909	Adsorption of Triton X-100 in aqueous solution on activated carbon obtained from waste tires for wastewater decontamination. 2020 , 26, 303-316	7
908	Porous carbon nanosheet with high surface area derived from waste poly(ethylene terephthalate) for supercapacitor applications. 2020 , 137, 48338	22
907	Porous carbon nanosheets functionalized with Fe ₃ O ₄ nanoparticles for capacitive removal of heavy metal ions from water. 2020 , 6, 331-340	17
906	Selective etching of C-N bonds for preparation of porous carbon with ultrahigh specific surface area and superior capacitive performance. 2020 , 24, 486-494	21
905	Recent trends in activated carbon fibers production from various precursors and applications: A comparative review. 2020 , 145, 104715	56
904	Nitrogen doped hierarchical porous hard carbon derived from a facial Ti-peroxy-initiating in-situ polymerization and its application in electrochemical capacitors. 2020 , 294, 109884	6
903	Kelp-Derived Activated Porous Carbon for the Detection of Heavy Metal Ions via Square Wave Anodic Stripping Voltammetry. 2020 , 11, 59-67	10
902	Low thermal conductivity carbon material from electrospinning and subsequent chemical activation. 2020 , 30, 289-296	4
901	Catalytic pyrolysis of biomass with potassium compounds for Co-production of high-quality biofuels and porous carbons. 2020 , 190, 116431	31
900	Advanced Materials for Sodium-Ion Capacitors with Superior Energy-Power Properties: Progress and Perspectives. 2020 , 16, e1902843	21
899	Preparation of activated carbon decorated with carbon dots and its electrochemical performance. 2020 , 82, 383-389	10

898	Sustainable Porous Carbon with High Specific Surface Area from Soybean Shell via Hydrothermal Carbonization with H ₃ PO ₄ for Electric Double-Layer Capacitor Applications. 2020 , 8, 1901103	5
897	Hierarchical porous carbon/selenium composite derived from hydrothermal treated peanut shell as high-performance lithium ion battery cathode. 2020 , 74, 1289-1299	3
896	Expansion of effective pore size on hydrogen physisorption of porous carbons at low temperatures with high pressures. 2020 , 158, 364-371	7
895	Walnut shell-derived hierarchical porous carbon with high performances for electrocatalytic hydrogen evolution and symmetry supercapacitors. 2020 , 45, 443-451	30
894	In situ assembly of MnO ₂ nanosheets on sulfur-embedded multichannel carbon nanofiber composites as cathodes for lithium-sulfur batteries. 2020 , 63, 728-738	24
893	Green Production of Carbon Nanomaterials in Molten Salts and Applications. 2020 ,	7
892	Biomass-derived porous carbon electrodes for high-performance supercapacitors. 2020 , 55, 5166-5176	30
891	Biomass-derived mesoporous carbons materials coated by Mn ₃ O ₄ with ultrafast zinc-ion diffusion ability as cathode for aqueous zinc ion batteries. 2020 , 335, 135642	36
890	Activated carbon derived from pitaya peel for supercapacitor applications with high capacitance performance. 2020 , 264, 127339	36
889	Heteroatom-doped highly porous carbons prepared by activation for efficient adsorptive removal of sulfamethoxazole.. 2020 , 10, 1595-1602	7
888	A facile Zn involved self-sacrificing template-assisted strategy towards porous carbon frameworks for aqueous supercapacitors with high ions diffusion coefficient. 2020 , 103, 107696	3
887	Investigating the effects of activating agent morphology on the porosity and related capacitance of nanoporous carbons. 2020 , 22, 1560-1567	5
886	Inversion phenomenon and effective charging quantity in capacitive deionization device. 2020 , 26, 3523-3529	1
885	Core-shell structured carbon nanotubes/N-doped carbon layer nanocomposites for supercapacitor electrodes. 2020 , 22, 1	6
884	High-efficiency removal of Cr(VI) by modified biochar derived from glue residue. 2020 , 254, 119935	40
883	Nitrogen Self-Doped Porous Carbon for High-Performance Supercapacitors. 2020 , 3, 1585-1592	59
882	The synthesis and performance analysis of various biomass-based carbon materials for electric double-layer capacitors: A review. 2020 , 44, 2426-2454	16
881	Scalable fabrication of heteroatom-doped versatile hierarchical porous carbons with an all-in-one phthalonitrile precursor and their applications. 2020 , 159, 495-503	12

880	Post-KOH activation of nitrogen-containing porous carbon with ordering mesostructure synthesized through a self-assembly. 2020 , 739, 137028	8
879	Design bifunctional nitrogen doped flexible carbon sphere electrode for dye-sensitized solar cell and supercapacitor. 2020 , 334, 135582	11
878	Reactive Template and Confined Self-Activation Strategy: Three-Dimensional Interconnected Hierarchically Porous N/O-Doped Carbon Foam for Enhanced Supercapacitors. 2020 , 8, 739-748	29
877	Biomass-based porous carbon beehive prepared in molten KOH for capacitors. 2020 , 35, 522-528	0
876	Scalable syntheses of three-dimensional graphene nanoribbon aerogels from bacterial cellulose for supercapacitors. 2020 , 31, 095403	5
875	Nano-porous carbon materials derived from different biomasses for high performance supercapacitors. 2020 , 46, 5811-5820	20
874	Electrode materials derived from plastic wastes and other industrial wastes for supercapacitors. 2020 , 31, 1474-1489	20
873	Advanced Li-SexSy battery system: Electrodes and electrolytes. 2020 , 55, 1-15	18
872	Ultra-high adsorption of tetracycline antibiotics on garlic skin-derived porous biomass carbon with high surface area. 2020 , 44, 1097-1106	26
871	A 3D Carbon Foam Derived from Phenol Resin via CsCl Soft-Templating Approach for High-Performance Supercapacitor. 2020 , 8, 1901301	10
870	From chitosan to urea-modified carbons: Tailoring the ultra-microporosity for enhanced CO ₂ adsorption. 2020 , 159, 625-637	69
869	Effect of structure of technical lignin on the electrochemical performance of lignin-derived porous carbon from K ₂ CO ₃ activation. 2020 , 74, 293-302	6
868	Facile synthesis of nanofiber composite based on biomass-derived material conjugated with nanoparticles of NiCo oxides for high-performance supercapacitors. 2020 , 31, 2269-2279	6
867	Metal-free nitrogen-rich glassy carbon as an electrocatalyst for hydrogen evolution reaction. 2020 , 124, 110734	9
866	Developing an Interpenetrated Porous and Ultrasuperior Hard-Carbon Anode via a Promising Molten-Salt Evaporation Method. 2020 , 12, 2481-2489	36
865	Biomass-derived functional porous carbons for adsorption and catalytic degradation of binary micropollutants in water. 2020 , 389, 121881	40
864	Evaluation of orange peel-derived activated carbons for treatment of dye-contaminated wastewater tailings. 2020 , 27, 1053-1068	19
863	High-performance activated carbons for electrochemical double layer capacitors: Effects of morphology and porous structures. 2020 , 44, 1930-1950	9

862	Hard carbon for sodium batteries: Wood precursors and activation with first group hydroxide. 2020 , 449, 227555	11
861	Hierarchically porous carbon derived from the activation of waste chestnut shells by potassium bicarbonate (KHCO ₃) for high-performance supercapacitor electrode. 2020 , 44, 988-999	22
860	Catalytic pyrolysis of Napier grass with nickel-copper core-shell bi-functional catalyst. 2020 , 145, 104745	7
859	Areca nut derived porous carbons for supercapacitor and CO ₂ capture applications. 2020 , 26, 1419-1429	4
858	Comparison of the electrochemical properties of engineered switchgrass biomass-derived activated carbon-based EDLCs. 2020 , 586, 124150	17
857	Facile preparation of functionalized hierarchical porous carbon from bean dregs for high-performance supercapacitors. 2020 , 31, 728-739	3
856	A three dimension magnetic bio-char composite-based quick, easy, cheap, effective, rugged and safe method for multi-pesticides analysis of vegetables. 2020 , 1615, 460770	8
855	Manganous nitrate -assisted potassium hydroxide activation of humic acid to prepare oxygen-rich hierarchical porous carbon as high-performance supercapacitor electrodes. 2020 , 449, 227506	37
854	Influences of aggregation behavior of lignin on the microstructure and adsorptive properties of lignin-derived porous carbons by potassium compound activation. 2020 , 82, 220-227	16
853	Soybean-waste-derived activated porous carbons for electrochemical-double-layer supercapacitors: Effects of processing parameters. 2020 , 27, 101070	15
852	N, S, O Self-Doped Porous Carbon Nanoarchitectonics Derived from Pinecone with Outstanding Supercapacitance Performances. 2020 , 20, 2728-2735	13
851	Revolutions in algal biochar for different applications: State-of-the-art techniques and future scenarios. 2020 , 31, 2591-2602	34
850	In-situ self-assembly host-guest carbon aerogels for robust electrochemical capacitors. 2020 , 364, 137285	3
849	Boosting gravimetric and volumetric energy density of supercapacitors by 3D pomegranate-like porous carbon structure design. 2020 , 534, 147613	8
848	Towards high-energy-density supercapacitors via less-defects activated carbon from sawdust. 2020 , 362, 137152	7
847	Effect of the uniaxial orientation on the polymer/filler nanocomposites using phosphonate-modified single-walled carbon nanotube with hydro- or fluorocarbons. 2020 , 78, 5503	5
846	Hydrogen storage properties of carbon aerogel synthesized by ambient pressure drying using new catalyst triethylamine. 2020 , 45, 30818-30827	9
845	Physicochemical Properties of Nitrogen Doped Carbon Nano-onions Grown by Flame Pyrolysis from GrapeSeed Oil for Use in Supercapacitors. 2020 , 32, 2946-2957	5

844	Novel interconnected hierarchical porous carbon electrodes derived from bio-waste of corn husk for supercapacitor applications. 2020 , 878, 114674	8
843	Sustainable N-doped hierarchical porous carbons as efficient CO ₂ adsorbents and high-performance supercapacitor electrodes. 2020 , 42, 101326	44
842	Highly Catalytic Boron Nitride Nanofiber In Situ Grown on Pretreated Ketjenblack as a Cathode for Enhanced Performance of Lithium-Sulfur Batteries. 2020 , 3, 10841-10853	10
841	An abundant porous biochar material derived from wakame (<i>Undaria pinnatifida</i>) with high adsorption performance for three organic dyes. 2020 , 318, 124082	42
840	Role of porous structure and active O-containing groups of activated biochar catalyst during biomass catalytic pyrolysis. 2020 , 210, 118646	23
839	Honeycomb-like carbon with tunable pore size from bio-oil for supercapacitor. 2020 , 309, 110551	9
838	Biochar as an alternative sustainable platform for sensing applications: A review. 2020 , 159, 105506	26
837	Novel template-free procedure of polyacrylonitrile-derived carbon hollow spheres preparation in the presence of palladium. 2020 , 24, 100555	
836	The rational design of biomass-derived carbon materials towards next-generation energy storage: A review. 2020 , 134, 110308	49
835	Nitrogen-Containing Porous Carbon Fibers Prepared from Polyimide Fibers for CO ₂ Capture. 2020 , 59, 18106-18114	7
834	Encapsulation of Se into Hierarchically Porous Carbon Microspheres with Optimized Pore Structure for Advanced Na-Se and K-Se Batteries. 2020 , 14, 13203-13216	34
833	From starch to porous carbon nanosheets: Promising cathodes for high-performance aqueous Zn-ion hybrid supercapacitors. 2020 , 306, 110445	23
832	Onion-derived activated carbons with enhanced surface area for improved hydrogen storage and electrochemical energy application.. 2020 , 10, 26928-26936	5
831	Value-added utilization of paper sludge: Preparing activated carbon for efficient adsorption of Cr(VI) and further hydrogenation of furfural. 2020 , 741, 140265	15
830	Superiority of Raw Biomass and Potassium Hydroxide in Preparation of Ultrahigh Nitrogen Doping of Carbon for NH ₃ -SCR Reaction. 2020 , 8, 11308-11316	12
829	Predictable and targeted activation of biomass to carbons with high surface area density and enhanced methane storage capacity. 2020 , 13, 2967-2978	19
828	Synthesis of a Very High Specific Surface Area Active Carbon and Its Electrical Double-Layer Capacitor Properties in Organic Electrolytes. 2020 , 4, 43	20
827	High-Value Utilization of Lignin To Prepare Functional Carbons toward Advanced Lithium-Ion Capacitors. 2020 , 8, 11522-11531	14

826	Self-Template Synthesis of Multiheteroatom Codoped Porous Carbon with Rational Mesoporosity from Traditional Chinese Medicine Dregs for High-Performance Supercapacitors. 2020 , 8, 11667-11681	8
825	Heteroatom modified carbon nanomaterials as metal-free catalysts for lignocellulosic carbohydrate valorization. 2020 , 121-140	0
824	Machine learning exploration of the critical factors for CO2 adsorption capacity on porous carbon materials at different pressures. 2020 , 273, 122915	32
823	The influence of inorganic components and carbon-oxygen surface functionalities in activated hydrothermally carbonized waste materials for water treatment. 2020 , 27, 38072-38083	1
822	Characterization of Chemically Activated Pyrolytic Carbon Black Derived from Waste Tires as a Candidate for Nanomaterial Precursor. 2020 , 10,	9
821	Influence and Electrochemical Stability of Oxygen Groups and Edge Sites in Vanadium Redox Reactions. 2020 , 7, 4745-4754	6
820	Lignin Based Activated Carbon Using HPO Activation. 2020 , 12,	11
819	Capacitive behavior of activated carbons obtained from coffee husk.. 2020 , 10, 38097-38106	6
818	Accelerating the Oxygen Reduction Reaction and Oxygen Evolution Reaction Activities of N and P Co-Doped Porous Activated Carbon for Li-O2 Batteries. 2020 , 10, 1316	7
817	Poly(s-triazine) based porous carbon for CO2 sequestration. 2020 , 256, 123750	3
816	Nanocomposite Materials. 2020 ,	13
815	Hierarchical porous structure carbon nanosheets derived from sodium lignosulfonate for high-performance supercapacitors. 2020 , 44, 21271-21278	4
814	Lithium metal storage in zeolitic imidazolate framework derived nanoarchitectures. 2020 , 33, 95-107	19
813	Development of biomass derived highly porous fast adsorbents for post-combustion CO2 capture. 2020 , 282, 118506	73
812	Recent progress on nanostructured carbon-based counter/back electrodes for high-performance dye-sensitized and perovskite solar cells. 2020 , 12, 17590-17648	25
811	Recent advances in the development and applications of biomass-derived carbons with uniform porosity. 2020 , 8, 18464-18491	27
810	Selective Hydrogenation of Acetylene to Ethylene over the Surface of Sub-2 nm Pd Nanoparticles in Miscanthus sinensis-Derived Microporous Carbon Tubes. 2020 , 8, 11638-11648	8
809	Ultrafast and scalable microwave-assisted synthesis of activated hierarchical porous carbon for high-performance supercapacitor electrodes. 2020 , 874, 114464	12

808	Microporous activated carbons from lignocellulosic biomass by KOH activation. 2020 , 28, 1030-1037	10
807	Three-dimensional honeycomb-like porous carbon derived from Ganoderma lucidum spore for high-performance electrochemical capacitors. 2020 , 26, 5805-5815	2
806	Effective synthesis route of renewable nanoporous carbon adsorbent for high energy gas storage and CO ₂ /N ₂ selectivity. 2020 , 161, 30-42	14
805	Polymer-Derived Heteroatom-Doped Porous Carbon Materials. 2020 , 120, 9363-9419	196
804	Hierarchical porous carbon converted from scrap rubber for methane storage and supercapacitor electrodes. 2020 , 562, 17-27	1
803	Poly(azomethine ether)-derived carbon nanofibers for self-standing and binder-free supercapacitor electrode material applications. 2020 , 31, 2874-2883	5
802	Investigation into performance enhancements of LiS batteries via oxygen-containing functional groups on activated multi-walled carbon nanotubes using Fourier transform infrared spectroscopy. 2020 , 20, 1049-1057	2
801	Bacterial Cellulose/Polyaniline Composite Derived Hierarchical Nitrogen-Doped Porous Carbon Nanofibers as Anode for High-Rate Lithium-Ion Batteries. 2020 , 3, 8676-8687	20
800	Synthesis and formation mechanism of biomass-based mesoporous graphitic carbon. 2020 , 209, 106543	16
799	Graphitic porous carbon with multiple structural merits for high-performance organic supercapacitor. 2020 , 477, 228759	16
798	A heterojunction of VO(OH) ₂ nanorods onto hemp stem derived carbon for high voltage (1.5 V) symmetric supercapacitors. 2020 , 4, 5102-5113	3
797	Biomass-derived porous activated carbon from Syzygium cumini fruit shells and Chrysopogon zizanioides roots for high-energy density symmetric supercapacitors. 2020 , 143, 105838	30
796	Facile and template-free strategy to construct N, P co-doped porous carbon nanosheets as a highly efficient electrocatalyst towards oxygen reduction reaction. 2020 , 877, 114732	6
795	Cation Selectivity in Capacitive Deionization: Elucidating the Role of Pore Size, Electrode Potential, and Ion Dehydration. 2020 , 12, 42644-42652	17
794	N, S-Codoped Activated Carbon Material with Ultra-High Surface Area for High-Performance Supercapacitors. 2020 , 12,	5
793	Porous carbons derived from potato for high-performancesupercapacitors. 2020 , 26, 6319-6329	4
792	Conversion of Biomass Wastes into Activated Carbons by Chemical Activation for Hydrogen Storage. 2020 , 5, 11221-11228	4
791	Insight into KOH activation mechanism during biomass pyrolysis: Chemical reactions between O-containing groups and KOH. 2020 , 278, 115730	54

790	Assessment of agricultural waste-derived activated carbon in multiple applications. 2020 , 191, 110176	13
789	Graphitic Porous Carbon Derived from Waste Coffee Sludge for Energy Storage. 2020 , 13,	5
788	Textile sludge/awdust chemically produced activated carbon: equilibrium and dynamics studies of malachite green adsorption. 2020 , 1	4
787	Effect of Oxygen for Enhancing the Gas Storage Performance of Activated Green Carbon. 2020 , 13, 3893	1
786	A Role of Activators for Efficient CO Affinity on Polyacrylonitrile-Based Porous Carbon Materials. 2020 , 8, 710	11
785	Characterization of Activated Carbon Paper Electrodes Prepared by Rice Husk-Isolated Cellulose Fibers for Supercapacitor Applications. 2020 , 25,	7
784	Dielectric parameters of activated carbon derived from rosewood and corncob. 2020 , 31, 18077-18084	2
783	Effects of structural feature of biomass raw materials on carbon products as matrix in cathode of Li-S battery and its electrochemical performance. 2020 , 26, 6035-6047	3
782	Groundnut shell-derived porous carbon-based supercapacitor with high areal mass loading using carbon cloth as current collector. 2020 , 26, 6297-6308	10
781	Porous carbon nanosheets derived from expanded graphite for supercapacitors and sodium-ion batteries. 2020 , 55, 16323-16333	2
780	Eucalyptus derived heteroatom-doped hierarchical porous carbons as electrode materials in supercapacitors. 2020 , 10, 14631	10
779	Nitrogen/Oxygen Enriched Hierarchical Porous Carbons Derived from Waste Peanut Shells Boosting Performance of Supercapacitors. 2020 , 6, 2000450	6
778	One-pot green mass production of hierarchically porous carbon via a recyclable salt-templating strategy. 2020 ,	5
777	Bimodal Mesoporous Carbon Spheres with Small and Ultra-Large Pores Fabricated Using Amphiphilic Brush Block Copolymer Micelle Templates. 2020 , 12, 57322-57329	8
776	Natural iron embedded hierarchically porous carbon with thin-thickness and high-efficiency microwave absorption properties.. 2020 , 10, 38989-38999	4
775	Biomass-derived activated carbon electrode coupled with a redox additive electrolyte for electrical double-layer capacitors. 2020 , 22, 1	7
774	A Low-Cost and High-Purity Porous Carbon Spheres Based on Starch Gel Toward High-Performance Supercapacitors. 2020 , 15, 2050147	1
773	"One-Step" Carbonization Activation of Garlic Seeds for Honeycomb-like Hierarchical Porous Carbon and Its High Supercapacitor Properties. 2020 , 5, 29913-29921	10

772	Chestnut-Derived Activated Carbon as a Prospective Material for Energy Storage. 2020 , 13,	7
771	Porous carbon materials derived from areca palm leaves for high performance symmetrical solid-state supercapacitors. 2020 , 55, 10751-10764	13
770	Activated Carbon Produced by Pyrolysis of Waste Wood and Straw for Potential Wastewater Adsorption. 2020 , 13,	25
769	CaCl ₂ -Activated Carbon Nitride: Hierarchically Nanoporous Carbons with Ultrahigh Nitrogen Content for Selective CO ₂ Adsorption. 2020 , 3, 5965-5977	8
768	One-step synthesis of biochar-supported potassium-iron catalyst for catalytic cracking of biomass pyrolysis tar. 2020 , 45, 16398-16408	22
767	Ultrasonic-assisted fabrication of porous carbon materials derived from agricultural waste for solid-state supercapacitors. 2020 , 55, 11512-11523	12
766	An Overview of Bacterial Cellulose in Flexible Electrochemical Energy Storage. 2020 , 13, 3731	12
765	Removal of Selected Heavy Metal Ions from Industrial Wastewater Using Rice and Corn Husk Biochar. 2020 , 231, 1	16
764	Dual-Template Pore Engineering of Whey Powder-Derived Carbon as an Efficient Oxygen Reduction Reaction Electrocatalyst for Primary Zinc-Air Battery. 2020 , 15, 1881-1889	1
763	Modeling and Optimization of a Jackfruit Seed-Based Supercapacitor Electrode Using Machine Learning. 2020 , 43, 1765-1773	3
762	Supercapacitor Electrodes from Viscose-Based Activated Carbon Fibers: Significant Yield and Performance Improvement Using Diammonium Hydrogen Phosphate as Impregnating Agent. 2020 , 6, 17	6
761	3-Dimensional Porous Carbon with High Nitrogen Content Obtained from Longan Shell and Its Excellent Performance for Aqueous and All-Solid-State Supercapacitors. 2020 , 10,	8
760	Simple and Sustainable Preparation of Nonactivated Porous Carbon from Brewing Waste for High-Performance Lithium-Sulfur Batteries. 2020 , 13, 3439-3446	10
759	Durian shell-derived N, O, P-doped activated porous carbon materials and their electrochemical performance in supercapacitor. 2020 , 55, 10142-10154	19
758	Recent advances and challenges in biomass-derived porous carbon nanomaterials for supercapacitors. 2020 , 397, 125418	103
757	Pomelo peel-based N, O-codoped hierarchical porous carbon material for supercapacitor application. 2020 , 753, 137597	16
756	Superior fast-charging capability of graphite anode via facile surface treatment for lithium-ion batteries. 2020 , 305, 110325	23
755	Nitrogen-doped activated carbons via melamine-assisted NaOH/KOH/urea aqueous system for high performance supercapacitors. 2020 , 250, 123201	15

754	Key issues facing electrospun carbon nanofibers in energy applications: on-going approaches and challenges. 2020 , 12, 13225-13248	38
753	Optimization of the preparation conditions of KOH-activated, PAN-based carbon ellipsoids by orthogonal experimental analysis. 2020 , 35, 131-139	2
752	Upcycling coal liquefaction residue into sulfur-rich activated carbon for efficient Hg ⁰ removal from coal-fired flue gas. 2020 , 206, 106467	14
751	Bio-derived hierarchically porous heteroatoms doped-carbon as anode for high performance potassium-ion batteries. 2020 , 871, 114272	9
750	One-Step Synthesis of Hierarchical, Bimodal Nanoporous Carbons via Co-templating with Bottlebrush and Linear Block Copolymers. 2020 , 32, 6055-6061	10
749	Hierarchical porous carbon derived from the gas-exfoliation activation of lignin for high-energy lithium-ion batteries. 2020 , 22, 4321-4330	28
748	Synthesis of porous carbon materials with mesoporous channels from Sargassum as electrode materials for supercapacitors. 2020 , 873, 114353	9
747	Nitrogen-Doped nano-carbon onion rings for energy storage in Lithium-ion capacitors. 2020 , 31, 101609	6
746	Development of activated carbon fibers for removal of organic contaminants. 2020 , 17, 4841-4852	4
745	ICP-MS method development and validation for determination of trace elemental impurities in caustic potash. 2020 , 454, 116356	5
744	KOH activated ZIF-L derived N-doped porous carbon with enhanced adsorption performance towards antibiotics removal from aqueous solution. 2020 , 289, 121492	16
743	Activated carbon obtained from amazonian biomass tailings (acai seed): Modification, characterization, and use for removal of metal ions from water. 2020 , 270, 110868	53
742	Synthesis of graphene-like carbon from biomass pyrolysis and its applications. 2020 , 399, 125808	52
741	Synthesis of 3D magnetic porous carbon derived from a metal-organic framework for the extraction of clenbuterol and ractopamine from mutton samples. 2020 , 145, 5011-5018	7
740	Flexible Supercapacitors Prepared Using the Peanut-Shell-Based Carbon. 2020 , 5, 14417-14426	7
739	Porous Carbon Monoliths Made from Cellulose and Starch. 2020 , 6, 32	3
738	Recent development in the synthesis of agricultural and forestry biomass-derived porous carbons for supercapacitor applications: a review. 2020 , 26, 3705-3723	16
737	Synthesis of ultrahigh-surface-area nitrogen-doped porous carbon materials from carboxymethyl cellulose based protic polyanion ionic liquids for high performance supercapacitors. 2020 , 4, 3418-3427	5

- 736 Blocky electrode prepared from nickel-catalysed lignin assembled woodceramics. **2020**, 55, 7760-7774 2
- 735 Pore-making ionic liquid driven carbon as polar mixture for carbon/sulfur composite cathodes. **2020**, 26, 2949-2957
- 734 Fabrication of hybrid supercapacitor device based on NiCo₂O₄@ZnCo₂O₄ and the biomass-derived N-doped activated carbon with a honeycomb structure. **2020**, 342, 136062 19
- 733 Flower-like carbon doped MoS₂/Activated carbon composite electrode for superior performance of supercapacitors and hydrogen evolution reactions. **2020**, 831, 154745 10
- 732 O/N-co-doped hierarchically porous carbon from carboxymethyl cellulose ammonium for high-performance supercapacitors. **2020**, 55, 7417-7431 10
- 731 Microstructure design of porous nanocarbons for ultrahigh-energy and power density supercapacitors in ionic liquid electrolyte. **2020**, 55, 7477-7491 8
- 730 FeC cluster-promoted single-atom Fe, N doped carbon for oxygen-reduction reaction. **2020**, 22, 7218-7223 9
- 729 Oxygen-rich porous carbons derived from alfalfa flowers for high performance supercapacitors. **2020**, 246, 122830 13
- 728 Waste biomass valorization through production of xylose-based porous carbon microspheres for supercapacitor applications. **2020**, 105, 492-500 24
- 727 Tactical Surface Modification of a 3D Graphite Felt as an Electrode of Vanadium Redox Flow Batteries with Enhanced Electrolyte Utilization and Fast Reaction Kinetics. **2020**, 34, 5060-5071 14
- 726 In situ self-activation synthesis of binary-heteroatom co-doped 3D coralline-like microporous carbon nanosheets for high-efficiency energy storage in flexible all-solid-state symmetrical supercapacitors. **2020**, 4, 2527-2540 9
- 725 A Novel Flexible Hybrid Battery/Supercapacitor Based on a Self-Assembled Vanadium-Graphene Hydrogel. **2020**, 30, 1910738 31
- 724 The fascinating supercapacitive performance of activated carbon electrodes with enhanced energy density in multifarious electrolytes. **2020**, 4, 3029-3041 32
- 723 Metal and Metal Oxide Electrocatalysts for Redox Flow Batteries. **2020**, 30, 1910564 30
- 722 One-pot synthesis of high N-doped porous carbons derived from a N-rich oil palm biomass residue in low temperature for CO₂ capture. **2020**, 44, 4875-4887 9
- 721 Seaweed-derived KOH activated biocarbon for electrocatalytic oxygen reduction and supercapacitor applications. **2020**, 27, 959-969 14
- 720 Ultrasound-assisted transformation from waste biomass to efficient carbon-based metal-free pH-universal oxygen reduction reaction electrocatalysts. **2020**, 65, 105048 22
- 719 Demonstration of Solar Cell on a Graphite Sheet with Carbon Diffusion Barrier Evaluation. **2020**, 25, 1

7 ¹⁸	Multiscale modeling of electrolytes in porous electrode: From equilibrium structure to non-equilibrium transport. 2020 , 5, 303-321	24
7 ¹⁷	Potassium citrate-assisted eco-friendly synthesis of tannin-derived nitrogen-doped micro/mesoporous carbon microspheres. 2020 , 55, 13716-13736	5
7 ¹⁶	Tuning ratios of KOH and NaOH on acetic acid-mediated chitosan-based porous carbons for improving their textural features and CO ₂ uptakes. 2020 , 40, 101212	30
7 ¹⁵	Pinecone-Derived Activated Carbons as an Effective Medium for Hydrogen Storage. 2020 , 13, 2237	7
7 ¹⁴	Coral-like interconnected carbon aerogel modified separator for advanced lithium-sulfur batteries. 2020 , 354, 136637	6
7 ¹³	Synthesis and characterization of activated carbon from biomass date seeds for carbon dioxide adsorption. 2020 , 8, 104257	32
7 ¹²	Liquid-liquid micromixing strategy enables low KOH-amount synthesis of ultrahighly porous carbon for zinc-ion storage. 2020 , 2, 1	1
7 ¹¹	N-self-doped porous carbon derived from animal-heart as an electrocatalyst for efficient reduction of oxygen. 2020 , 579, 832-841	3
7 ¹⁰	Corn husk derived activated carbon with enhanced electrochemical performance for high-voltage supercapacitors. 2020 , 471, 228387	52
7 ⁰⁹	Fabrication of Biomass-Derived N, S Co-doped Carbon with Hierarchically Porous Architecture for High Performance Supercapacitor. 2020 , 15, 2050096	6
7 ⁰⁸	A review of recent developments in catalytic applications of biochar-based materials. 2020 , 162, 105036	42
7 ⁰⁷	Nitrogen-doped porous carbon with interconnected tubular structure for supercapacitors operating at sub-ambient temperatures. 2020 , 401, 126083	17
7 ⁰⁶	Hydrothermal and pyrolytic biochars from waste milk thistle (<i>Silybum marianum</i>) extrudates as precursors for production of effective isoproturon adsorbents. 2020 , 37, 101459	1
7 ⁰⁵	Electrochemical Performance of rGO/NiCo ₂ O ₄ @ZnCo ₂ O ₄ Ternary Composite Material and the Fabrication of an all-Solid-State Supercapacitor Device. 2020 , 34, 10131-10141	17
7 ⁰⁴	Preparation of Activated Carbon Derived from Water Hyacinth as Electrode Active Material for Li-Ion Supercapacitor. 2020 , 1000, 50-57	
7 ⁰³	Conducting polymer composites for unconventional solid-state supercapacitors. 2020 , 8, 4677-4699	58
7 ⁰²	Synthesis and Adsorption Performance of a Hierarchical Micro-Mesoporous Carbon for Toluene Removal under Ambient Conditions. 2020 , 13,	7
7 ⁰¹	An Ultra-microporous Carbon Material Boosting Integrated Capacitance for Cellulose-Based Supercapacitors. 2020 , 12, 63	36

700	Enhanced peroxymonosulfate activation by supported microporous carbon for degradation of tetracycline via non-radical mechanism. 2020 , 240, 116617	26
699	Multilayer carbon materials prepared from husk for high-performance supercapacitors.. 2020 , 10, 5666-5672	2
698	Porous Carbons: Structure-Oriented Design and Versatile Applications. 2020 , 30, 1909265	119
697	Preparation of activated biomass carbon from pine sawdust for supercapacitor and CO ₂ capture. 2020 , 44, 4335-4351	35
696	Advanced porous graphene materials: from in-plane pore generation to energy storage applications. 2020 , 8, 6125-6143	31
695	Efficient waste polyvinyl(butylal) and cellulose composite enabled carbon nanofibers for oxygen reduction reaction and water remediation. 2020 , 510, 145505	7
694	Synthesis Strategies of Porous Carbon for Supercapacitor Applications. 2020 , 4, 1900853	161
693	Rapid, simple and sustainable synthesis of ultra-microporous carbons with high performance for CO ₂ uptake, via microwave heating. 2020 , 388, 124309	18
692	N-doped honeycomb-like hierarchical porous carbon foams for supercapacitor applications with different PC/RF mass ratios. 2020 , 31, 3519-3528	5
691	A robust 2D porous carbon nanoflake cathode for high energy-power density Zn-ion hybrid supercapacitor applications. 2020 , 510, 145384	66
690	Hierarchical N-doped hollow carbon microspheres as advanced materials for high-performance lithium-ion capacitors. 2020 , 8, 3956-3966	27
689	Au-Pt@Biomass porous carbon composite modified electrode for sensitive electrochemical detection of baicalein. 2020 , 154, 104602	12
688	Unravelling the role of temperature in a redox supercapacitor composed of multifarious nanoporous carbon@hydroquinone.. 2020 , 10, 1799-1810	7
687	Biomass-derived porous graphitic carbon materials for energy and environmental applications. 2020 , 8, 5773-5811	110
686	Quinone/ester-based oxygen functional group-incorporated full carbon Li-ion capacitor for enhanced performance. 2020 , 12, 3677-3685	45
685	Natural gas storage properties of adsorbents synthesised from three different coal waste in South Africa. 2020 , 267, 117157	10
684	Defect-Rich, Graphenelike Carbon Sheets Derived from Biomass as Efficient Electrocatalysts for Rechargeable ZincAir Batteries. 2020 , 8, 2981-2989	28
683	Thermal Conversion of Triazine-Based Covalent Organic Frameworks to Nitrogen-Doped Nanoporous Carbons and Their Capacitor Performance. 2020 , 93, 414-420	8

682	Using Biochar and Coal as the Electrode Material for Supercapacitor Applications. 2020 , 7,	17
681	Fabrication of PlatinumRhenium Nanoparticle-Decorated Porous Carbons: Voltammetric Sensing of Furazolidone. 2020 , 8, 3591-3605	35
680	Ultrahigh surface area carbon nanosheets derived from lotus leaf with super capacities for capacitive deionization and dye adsorption. 2020 , 524, 146485	27
679	Nitrogen and sulfur codoped micro-mesoporous carbon sheets derived from natural biomass for synergistic removal of chromium(VI): adsorption behavior and computing mechanism. 2020 , 730, 138930	30
678	Activated Functionalized Carbon Nanotubes and 2D Nanostructured MoS2 Hybrid Electrode Material for High-Performance Supercapacitor Applications. 2020 , 217, 1900855	8
677	Carbon nanofibers derived from bacterial cellulose: Surface modification by polydopamine and the use of ferrous ion as electrolyte additive for collaboratively increasing the supercapacitor performance. 2020 , 519, 146252	14
676	Chemical activation of carbon materials for supercapacitors: Elucidating the effect of spatial characteristics of the precursors. 2020 , 597, 124762	2
675	Rice husk derived nano-NiFe2O4@CAGC-catalyzed direct oxidation of toluene to benzyl benzoate under visible LED light. 2020 , 21, 100163	3
674	Alternative lithium-ion battery using biomass-derived carbons as environmentally sustainable anode. 2020 , 573, 396-408	31
673	Evaluation of Two Potassium-Based Activation Agents for the Production of Oxygen- and Nitrogen-Doped Porous Carbons. 2020 , 34, 6101-6112	6
672	Microwave-Assisted Preparation of Activated Carbon Modified by Zinc Chloride as a Packing Material for Column Separation of Saccharides. 2020 , 5, 10106-10114	4
671	Rapid adsorption of naphthalene from aqueous solution by naphthylmethyl derived porous carbon materials. 2020 , 304, 112768	5
670	Tobacco stem-derived N-enriched active carbon: efficient metal free catalyst for reduction of nitroarene. 2020 , 130, 331-346	5
669	Manufacture of activated carbons using Egyptian wood resources and its application in oligothiophene dye adsorption. 2020 , 13, 5284-5291	9
668	Partially graphitic hierarchical porous carbon nanofiber for high performance supercapacitors and lithium ion batteries. 2020 , 462, 228098	27
667	Coal-based S hybrid self-doped porous carbon for high-performance supercapacitors and potassium-ion batteries. 2020 , 461, 228151	49
666	Carbon nanosheets from biomass waste: insights into the role of a controlled pore structure for energy storage. 2020 , 4, 3552-3565	12
665	Template-Free Synthesis of N-Doped Porous Carbon Materials From Furfuryl Amine-Based Protic Salts. 2020 , 8, 196	4

664	Porous Carbon Materials Obtained by the Hydrothermal Carbonization of Orange Juice. 2020 , 10,	10
663	Transforming polystyrene waste into 3D hierarchically porous carbon for high-performance supercapacitors. 2020 , 253, 126755	32
662	Preparation and Application of Hierarchical Porous Carbon Materials from Waste and Biomass: A Review. 2021 , 12, 1699-1724	30
661	Recent advances in carbon nanostructures prepared from carbon dioxide for high-performance supercapacitors. 2021 , 54, 352-367	44
660	Fe-assisted catalytic chemical vapor deposition of graphene-like carbon nanosheets over SrO. 2021 , 171, 444-454	7
659	A novel grafting-template method to prepare three-dimensional hierarchical porous carbon with high surface area and electrical conductivity for superior-performance supercapacitors. 2021 , 482, 228922	13
658	N-doped hierarchically porous carbon derived from grape marcs for high-performance supercapacitors. 2021 , 854, 157207	43
657	Coal-derived porous activated carbon with ultrahigh specific surface area and excellent electrochemical performance for supercapacitors. 2021 , 859, 157856	7
656	Influence of surface modification on selective CO ₂ adsorption: A technical review on mechanisms and methods. 2021 , 312, 110751	37
655	One-step synthesis of in-situ N, S self-doped carbon nanosheets with hierarchical porous structure for high performance supercapacitor and oxygen reduction reaction electrocatalyst. 2021 , 366, 137404	16
654	Preparation of activated carbon derived from oil palm empty fruit bunches and its modification by nitrogen doping for supercapacitors. 2021 , 28, 9-18	6
653	Two dimensional nanocarbons from biomass and biological molecules: Synthetic strategies and energy related applications. 2021 , 54, 795-814	21
652	A Seawater-in-Sludge Approach for capacitive biochar production via the alkaline and alkaline earth metals activation. 2021 , 15, 1	2
651	High Energy Density Heteroatom (O, N and S) Enriched Activated Carbon for Rational Design of Symmetric Supercapacitors. 2021 , 27, 669-682	11
650	A new insight into chemical reactions between biomass and alkaline additives during pyrolysis process. 2021 , 38, 3881-3890	7
649	Perforated two-dimensional nanoarchitectures for next-generation batteries: Recent advances and extensible perspectives. 2021 , 116, 100716	12
648	KOH-activated high surface area Douglas Fir biochar for adsorbing aqueous Cr(VI), Pb(II) and Cd(II). 2021 , 269, 128409	39
647	Facile synthesis of Fe ₃ C nano-particles/porous biochar cathode materials for lithium sulfur battery. 2021 , 853, 157024	12

646	CoP-embedded nitrogen and phosphorus co-doped mesoporous carbon nanotube for efficient hydrogen evolution. 2021 , 537, 147834	10
645	Wool textile-derived nitrogen-doped porous carbon cloth for a binder-free electrode material for high-performance flexible solid-state supercapacitors. 2021 , 56, 2412-2424	6
644	Tailoring in-situ N, O, P, S-doped soybean-derived porous carbon with ultrahigh capacitance in both acidic and alkaline media. 2021 , 163, 375-385	17
643	Solvent-free, one-pot synthesis of nitrogen-tailored alkali-activated microporous carbons with an efficient CO ₂ adsorption. 2021 , 172, 71-82	71
642	Application and exploration of nanofibrous strategy in electrode design. 2021 , 74, 189-202	16
641	Engineered hierarchical porous carbons for supercapacitor applications through chemical pretreatment and activation of biomass precursors. 2021 , 163, 276-287	36
640	Easy conversion of nitrogen-rich silk cocoon biomass to magnetic nitrogen-doped carbon nanomaterial for supporting of Palladium and its application. 2021 , 35,	4
639	More Sustainable Chemical Activation Strategies for the Production of Porous Carbons. 2021 , 14, 94-117	38
638	Metal-organic framework-derived nanomaterials in environment related fields: Fundamentals, properties and applications. 2021 , 429, 213618	38
637	Inorganic matter in rice husk derived carbon and its effect on the capacitive performance. 2021 , 57, 639-649	3
636	Cesium Ion-Mediated Microporous Carbon for CO ₂ Capture and Lithium-Ion Storage. 2021 , 7, 150-157	3
635	Cellulose-based material in lithium-sulfur batteries: A review. 2021 , 255, 117469	16
634	Theoretical understanding for anchoring effect of MOFs for lithium-sulfur batteries. 2021 , 1196, 113110	0
633	Inherent Oxygen- and Nitrogen-Doped Porous Carbon Derived from Biomass of Tamarind Leaf for High-Performance Supercapacitor Application. 2021 , 9, 2000734	4
632	Hierarchical porous carbon derived from Gardenia jasminoides Ellis flowers for high performance supercapacitor. 2021 , 33, 102061	15
631	A highly porous animal bone-derived char with a superiority of promoting nZVI for Cr(VI) sequestration in agricultural soils. 2021 , 104, 27-39	18
630	Sorghum biomass-derived porous carbon electrodes for capacitive deionization and energy storage. 2021 , 312, 110757	20
629	Effect of the structure and micropore of activated and oxidized black carbon on the sorption and desorption of nonylphenol. 2021 , 761, 144191	4

628	Microporous activated carbon prepared from yarn processing sludge via composite chemical activation for excellent adsorptive removal of malachite green. 2021 , 22, 100832	3
627	Improving the electrocatalytic performance of sustainable Co/carbon materials for the oxygen evolution reaction by ultrasound and microwave assisted synthesis. 2021 , 5, 720-731	10
626	Facile synthesis and frequency-response behavior of supercapacitor electrode based on surface-etched nanoscaled-graphene platelets. 2021 , 609, 125587	3
625	Preparation of highly porous activated carbons from peanut shells as low-cost electrode materials for supercapacitors. 2021 , 34, 102180	7
624	Designing the effective microstructure of lignin-based porous carbon substrate to inhibit the capacity decline for SnO ₂ anode. 2021 , 161, 113179	8
623	Optimized synergistic preparation of nitrogen-doped porous carbon derived from gasified carbon for supercapacitors. 2021 , 860, 158385	6
622	Uranium removal from aqueous solution using macauba endocarp-derived biochar: Effect of physical activation. 2021 , 272, 116022	11
621	Low cost 3D bio-carbon foams obtained from wheat straw with broadened bandwidth electromagnetic wave absorption performance. 2021 , 543, 148785	18
620	Biomass derived porous carbon (BPC) and their composites as lightweight and efficient microwave absorption materials. 2021 , 207, 108562	53
619	One-Step Activation of Anode Materials from Spent Lithium-Ion Batteries as High-Performance Electrodes for Capacitive Deionization. 2021 , 8, 370-376	1
618	Recent progress in the development of biomass-derived nitrogen-doped porous carbon. 2021 , 9, 3703-3728	69
617	ORR and OER of Co/N codoped carbon-based electrocatalysts enhanced by boundary layer oxygen molecules transfer. 2021 , 172, 556-568	26
616	Camellia Pollen-Derived Carbon with Controllable N Content for High-Performance Supercapacitors by Ammonium Chloride Activation and Dual N-Doping. 2021 , 7, 34-43	14
615	Microporous Organic Polymers: A Synthetic Platform for Engineering Heterogeneous Carbocatalysts. 2021 , 14, 624-631	3
614	Nickel-catalyzed formation of mesoporous carbon structure promoted capacitive performance of exhausted biochar. 2021 , 406, 126856	8
613	Design and development of honeycomb structured nitrogen-rich cork derived nanoporous activated carbon for high-performance supercapacitors. 2021 , 34, 102017	6
612	Recent Advances in Functionalized Nanoporous Carbons Derived from Waste Resources and Their Applications in Energy and Environment. 2021 , 5, 2000169	19
611	S-doped 3D porous carbons derived from potassium thioacetate activation strategy for zinc-ion hybrid supercapacitor applications. 2021 , 45, 2498-2510	18

610	Understanding and Tuning the Electrical Conductivity of Activated Carbon: A State-of-the-Art Review. 2021 , 46, 1-37	20
609	Well-dispersed Pt/RuO-decorated mesoporous N-doped carbon as a hybrid electrocatalyst for Li-O batteries.. 2021 , 11, 12209-12217	5
608	Heteroatoms Doped Porous Carbon Nanostructures Recovered from Agriculture Waste for Energy Conversion and Storage. 2021 , 465-512	
607	Nitrogen-Doped Hierarchical Porous Activated Carbon Derived from Paddy for High-Performance Supercapacitors. 2021 , 14,	5
606	Synthesis and structural/electrochemical evaluation of N, S co-doped activated porous carbon spheres as efficient electrode material for supercapacitors. 2021 , 1, e2000021	0
605	Characterization and Valorization of Humins Produced by HMF Degradation in Ionic Liquids: A Valuable Carbonaceous Material for Antimony Removal. 2021 , 9, 2212-2223	13
604	Link between Alkali Metals in Salt Templates and in Electrolytes for Improved Carbon-Based Electrochemical Capacitors. 2021 , 13, 2584-2599	4
603	Carbonaceous Adsorbents Derived from Agricultural Sources for the Removal of Pramipexole Pharmaceutical Model Compound from Synthetic Aqueous Solutions. 2021 , 9, 253	1
602	Brazilian amlberry seeds: an abundant waste applied in the synthesis of carbon-based acid catalysts for transesterification of low free fatty acid waste cooking oil. 2021 , 28, 21285-21302	1
601	Preparation of Scallion-Derived Porous Carbon with Regular Pore Structure for High-Performance Supercapacitors. 2020 , 167, 160549	5
600	Activated carbon: Synthesis, properties, and applications. 2021 , 783-827	0
599	Preparation of Flax Residue Activated Carbon by KOH Method and Its Electrode Performance. 2021 , 12, 417-435	
598	Toward sustainable desalination using food waste: capacitive desalination with bread-derived electrodes.. 2021 , 11, 9628-9637	1
597	Current Research Trends and Perspectives on Solid-State Nanomaterials in Hydrogen Storage. 2021 , 2021, 3750689	9
596	Fabrication of Biomass-Derived Activated Carbon with Interconnected Hierarchical Architecture Via H ₃ P ₄ O ₄ -Assisted KOH Activation for High-Performance Symmetrical Supercapacitors.	
595	Recent progress in biomass-derived carbon materials used for secondary batteries. 2021 , 5, 3017-3038	11
594	Biopolymer-based (nano)materials for hydrogen storage. 2021 , 673-701	
593	Overview of Electrode Materials Progressed for Application in Electrochemical Supercapacitors: An Update. 2021 , 33, 1039-1050	0

592	Review of oil palm-derived activated carbon for CO ₂ capture. 2021 , 31, 201-252	12
591	A Covalent P-C Bond Stabilizes Red Phosphorus in an Engineered Carbon Host for High-Performance Lithium-Ion Battery Anodes. 2021 , 15, 3365-3375	29
590	Poly(Ether Amide)-Derived, Nitrogen Self-Doped, and Interfused Carbon Nanofibers as Free-Standing Supercapacitor Electrode Materials. 2021 , 4, 1517-1526	6
589	Two-dimensional SnO anchored biomass-derived carbon nanosheet anode for high-performance Li-ion capacitors.. 2021 , 11, 10018-10026	7
588	Effect of the Temperature of Preliminary Treatment on the Structural Characteristics of Highly Porous Iron-Containing Metal-Carbon Nanocomposites during Their Production. 2021 , 95, 172-176	
587	A robust magnesiothermic reduction combined self-activation strategy towards highly-curved carbon nanosheets for advanced zinc-ion hybrid supercapacitors applications. 2021 , 32, 185403	3
586	Milling Time-Dependent Lithium/Sodium Storage Performance of Carbons Synthesized by a Mechanochemical Reaction. 2021 , 35, 4596-4603	2
585	Developing porous organic polymers as precursors of nitrogen-decorated micro-mesoporous carbons for efficient capture and conversion of carbon dioxide. 2021 , 56, 9315-9329	4
584	Advances in Post-Combustion CO Capture by Physical Adsorption: From Materials Innovation to Separation Practice. 2021 , 14, 1428-1471	16
583	Recent progress of mesoporous materials for high performance supercapacitors. 2021 , 314, 110870	13
582	A review of metal-organic framework-derived carbon electrode materials for capacitive deionization. 2021 , 36, 117-132	11
581	Liquid nitrogen-controlled direct pyrolysis/KOH activation mediated micro-mesoporous carbon synthesis from castor shell for enhanced performance of supercapacitor electrode. 1	2
580	Recent Developments and Future Prospects for Zinc-Ion Hybrid Capacitors: a Review. 2021 , 11, 2003994	76
579	Boron/oxygen-induced surface modification of carbon material and the use of p-aminophenol as electrolyte additive: Cooperative effect for increased capacitive performance in acidic or alkaline electrolyte. 2021 , 882, 114991	
578	Pt Nanoparticles Embedded in KOH-Activated Soybean Straw as an Efficient Catalyst toward Benzene Oxidation. 2021 , 60, 3561-3571	0
577	Preparing Biochars from Cow Hair Waste Produced in a Tannery for Dye Wastewater Treatment. 2021 , 14,	4
576	Printing Porous Carbon Aerogels for Low Temperature Supercapacitors. 2021 , 21, 3731-3737	32
575	Electromagnetic wave absorption of coconut fiber-derived porous activated carbon. 2021 ,	2

574	Hierarchical porous carbon nanoparticles derived from Helianthus annuus for glucose-sensing application. 2021 , 4, 755-760	1
573	Dead Ashoka (Saraca asoca) leaves-derived porous activated carbons and flexible iongel polymer electrolyte for high-energy-density electric double-layer capacitors. 2021 , 11-12, 100062	2
572	Development of glycerol based carbon having enhanced surface area and capacitance obtained by KOH induced thermochemical activation. 2021 , 261, 124238	6
571	Efficiency of Thermal Shock in the Thermal Alkaline Conversion of Fossil Coals into Nanoporous Materials. 2021 , 55, 110-116	
570	Engineered Carbon Electrodes for High Performance Capacitive and Hybrid Energy Storage. 2021 , 35, 102340	0
569	N/P co-doped porous carbon microspheres for supercapacitor with long-term electrochemical stability. 2021 , 36, 1250-1261	2
568	Preparation of porous nitrogen-doped activated carbon derived from rice straw for high-performance supercapacitor application. 2021 , 120, 246-256	20
567	Sustainable Carbon Materials toward Emerging Applications.. 2021 , 5, e2001250	12
566	Humic acid resin-based amorphous porous carbon as high rate and cycle performance anode for sodium-ion batteries. 2021 , 372, 137850	4
565	Constructing Hierarchically Porous N-Doped Carbons Derived from Poly(ionic liquids) with the Multifunctional Fe-Based Template for CO Adsorption. 2021 , 6, 7186-7198	3
564	Effect of electrode porosity on the charge transfer in vanadium redox flow battery. 2021 , 488, 229411	11
563	Surface-driven charge storage behaviors of Kenaf-derived carbon electrodes with hierarchical porous structure for lithium-ion capacitors. 2021 , 544, 148979	3
562	3D Honey-Comb like Nitrogen Self-Doped Porous Carbon Networks for High-Performance Electrochemical Detection of Antibiotic Drug Furazolidone. 2021 , 168, 047503	3
561	Advantageous Tubular Structure of Biomass-Derived Carbon for High-Performance Sodium Storage. 2021 , 4, 4955-4965	5
560	Mulch-assisted ambient-air synthesis of oxygen-rich activated carbon for hydrogen storage: A combined experimental and theoretical case study. 2021 , 544, 148963	11
559	Deciphering the Incredible Supercapacitor Performance of Conducting Bordered Ultramicroporous Graphitic Carbon. 2021 , 4, 4416-4427	9
558	Pomelo peel-derived lamellar carbon with surface oxygen functional groups for high-performance supercapacitors. 2021 , 127, 1	2
557	The porous carbon derived from soy protein isolate with electrochemical performance controlled by external pressure. 2021 , 887, 115174	0

556	High Throughput Centrifugal Electrospinning of Polyacrylonitrile Nanofibers for Carbon Fiber Nonwovens. 2021 , 13,	6
555	Flexible asymmetric supercapacitors based on NiCo ₂ O ₄ in a neutral electrolyte achieving 2.4 V voltage window. 2021 , 860, 158346	10
554	Efficient Removal of Methylene Blue from Aqueous Solutions Using a High Specific Surface Area Porous Carbon Derived from Soybean Dreg. 2021 , 14,	5
553	One-pot synthesis of N-doped hierarchical porous carbon for high-performance aqueous capacitors in a wide pH range. 2021 , 491, 229587	6
552	An overview on engineering the surface area and porosity of biochar. 2021 , 763, 144204	106
551	Biomass-Derived Ternary-Doped Porous Carbon Electrodes for Li-Ion Capacitors: Rational Preparation and Energy-Storage Mechanism Study. 2021 , 168, 040521	2
550	Emergence of melanin-inspired supercapacitors. 2021 , 37, 101075	41
549	A cost-effective synthesis of heteroatom-doped porous carbon by sulfur-containing waste liquid treatment: As a promising adsorbent for CO ₂ capture. 2021 , 9, 105165	9
548	Enhanced gas adsorption using an effective nanoadsorbent with high surface area based on waste jute as cellulose fiber. 1	1
547	Fabrication and electrochemical applications of the Co-embedded N&P-codoped hierarchical porous carbon host from yeast for Li-S batteries. 2021 , 545, 148936	8
546	Preparation of hierarchically porous carbon nanosheets by carbonizing resol resin for supercapacitors. 2021 , 28, 1187	1
545	Improvement of Mesoporosity on Supercapacitive Performance of Activated Carbons Derived From Coffee Grounds. 2021 , 42, 748-755	1
544	Facile synthesis of macroalgae-derived graphene adsorbents for efficient CO ₂ capture. 2021 , 148, 1048-1059	3
543	Low temperature CO ₂ capture on biomass-derived KOH-activated hydrochar established through hydrothermal carbonization with water-soaking pre-treatment. 2021 , 9, 105074	15
542	Metal nano-drills directionally regulate pore structure in carbon. 2021 , 175, 60-68	3
541	Hollow CoS ₂ Nanobubble Prisms Derived from ZIF-67 through Facile Two-Step Self-Engaged Method for Electromagnetic Wave Absorption. 2021 , 6, 4344-4353	3
540	Preparation of High-Performance Enteromorpha Prolifera-Based Porous Carbons by Nitrogen Modification and Their Electrochemical Performance. 2021 , 9,	
539	An overview of effect of process parameters for removal of CO ₂ using biomass-derived adsorbents. 1	3

538	Pore Structure Regulation and Electrochemical Performance Characterization of Activated Carbon for Supercapacitors. 2021 , 9,	1
537	Chitin derived nitrogen-doped porous carbons with ultrahigh specific surface area and tailored hierarchical porosity for high performance supercapacitors. 2021 , 6, 142-151	47
536	Nitrogen-Doped Porous Carbon Derived from Cellulose Microfibers of Rice Straw for High-Performance Electrodes of Supercapacitors. 2021 , 35, 10190-10198	3
535	Progress in modifications of 3D graphene-based adsorbents for environmental applications. 2021 , 270, 129420	11
534	Characteristics and carbon dioxide adsorption performance of candle soot-activated by potassium hydroxide. 2021 , 765, 012087	0
533	Nitrogen release and pore formation through KOH activation of nitrogen-doped carbon materials: an evaluation of the literature. 2021 , 31, 581	8
532	Development of Fluorine-Free Tantalum Carbide MXene Hybrid Structure as a Biocompatible Material for Supercapacitor Electrodes.. 2021 , 31, 2100015	14
531	Biomass-Based Carbon Electrodes in the Design of Supercapacitors: An Electrochemical Point of View.	1
530	Tobacco stalk-derived carbon prepared by one-step molten salt carbonization for supercapacitor. 2021 , 14, 2151021	1
529	βCyclodextrin-assisted fabrication of hierarchically porous carbon sheet with O/N defects for electrical double-layer supercapacitor. 2021 , 32, 15046-15058	0
528	Biomass Based Materials in Electrochemical Supercapacitor Applications.	
527	Effects of FeCl Catalytic Hydrothermal Carbonization on Chemical Activation of Corn Wet Distillers' Fiber. 2021 , 6, 14875-14886	4
526	Nitrogen-Doped Microporous Carbon Prepared by One-Step Carbonization: Rational Design of a Polymer Precursor for Efficient CO ₂ Capture. 2021 , 35, 8857-8867	6
525	Vitreum Etching-Assisted Fabrication of Porous Hollow Carbon Architectures for Enhanced Capacitive Sodium and Potassium-Ion Storage. 2021 , 17, e2100538	10
524	Polyacrylamide Gel-Derived Nitrogen-Doped Carbon Foam Yields High Performance in Supercapacitor Electrodes. 2021 , 4, 6719-6729	6
523	Water/acetonitrile hybrid electrolyte enables using smaller ions for achieving superior energy density in carbon-based supercapacitors. 2021 , 498, 229905	1
522	Hierarchically activated porous carbon derived from zinc-based fluorine containing metal-organic framework as extremely high specific capacitance and rate performance electrode material for advanced supercapacitors. 2021 , 591, 9-19	10
521	Methanolysis of low-FFA waste cooking oil with novel carbon-based heterogeneous acid catalyst derived from Amazon açaí berry seeds. 2021 , 171, 621-634	5

520	Heteroatoms doped porous carbon derived from waste potato peel for supercapacitors. 2021 , 170, 60-71	33
519	Limitation of K ₂ CO ₃ as a Chemical Agent for Upgrading Activated Carbon. 2021 , 9, 1000	3
518	Promoting the energy density of lithium-ion capacitor by coupling the pore-size and nitrogen content in capacitive carbon cathode. 2021 , 498, 229912	13
517	Bi-functional nature cupric bound high pores activated carbon electrode enhanced electrochemical properties for energy storage and energy conversion system. 2021 , 890, 115245	0
516	Biomass derived carbon materials: Synthesis and application towards CO ₂ and H ₂ S adsorption.	2
515	One-step molten salt carbonization of tobacco stem for capacitive carbon. 2021 , 28, 1629	0
514	Biomass-derived porous carbons as supercapacitor electrodes A review. 2021 , 36, 546-572	16
513	ZTIFs derived nitrogen-introduced high specific area and hierarchical porous carbon for oxygen reduction reaction. 2021 , 32, 17094-17104	
512	3-D hierarchical porous carbon from oxidized lignin by one-step activation for high-performance supercapacitor. 2021 , 180, 51-60	13
511	Design of boron-doped mesoporous carbon materials for multifunctional applications: Dye adsorption and CO ₂ capture. 2021 , 9, 105250	7
510	Synthesis strategies of templated porous carbons beyond the silica nanocasting technique. 2021 , 178, 451-476	19
509	Sustainable porous hollow carbon spheres with high specific surface area derived from Kraft lignin. 2021 , 32, 2064-2073	10
508	Mesoporous activated carbon yielded from pre-leached cassava peels. 2021 , 8,	5
507	Chimerism of Carbon by Ruthenium Induces Gradient Catalysis. 2021 , 31, 2104011	4
506	High specific area activated carbon derived from chitosan hydrogel coated tea saponin: One-step preparation and efficient removal of methylene blue. 2021 , 9, 105251	8
505	Catalytic activation preparation of nitrogen-doped hierarchical porous bio-char for efficient adsorption of dichloromethane and toluene. 2021 , 156, 105150	8
504	Methylene blue contaminated water sanitization with alginate/compact discs waste-derived activated carbon composite beads: Adsorption studies. 2021 , 180, 28-35	6
503	C ₇ N ₆ monolayer as high capacity and reversible hydrogen storage media: A DFT study. 2021 , 46, 21994-22003	10

502	Activated graphene with fractal structure for the adsorption of malachite green with high removal rate. 2021 , 322, 111166	1
501	Large-Scale Production of Carbon-Supported Cobalt-Based Functional Nanoparticles for Oxygen Evolution Reaction. 2021 , 13, 3824-3835	
500	The Enhanced Hydrogen Storage Capacity of Carbon Fibers: The Effect of Hollow Porous Structure and Surface Modification. 2021 , 11,	3
499	A novel hierarchical porous carbon derived from durian shell as enhanced sulfur carrier for high performance Li-S batteries. 2021 , 893, 115306	6
498	Preparation of Porous Graphene with Ultra-High Surface Area from Sri-Lankan Graphite. 2021 ,	
497	Ice-colloidal templated carbon host for highly efficient, dendrite free Li metal anode. 2021 , 179, 256-265	2
496	A novel approach to synthesize porous graphene sheets by exploring KOH as pore inducing agent as well as a catalyst for supercapacitors with ultra-fast rate capability. 2021 , 172, 502-513	11
495	Nitrogen-doped porous carbons synthesized with low-temperature sodium amide activation as metal-free catalysts for oxidative coupling of amines to imines. 2021 , 56, 16865-16876	1
494	Rhodamine 6g Removal from Aqueous Solution with Coconut Shell-Derived Nanomagnetic Adsorbent Composite (Cs-Nmac): Isotherm and Kinetic Studies. 2021 , 29,	1
493	Biomass-Derived Activated Carbon-Supported Copper Catalyst: An Efficient Heterogeneous Magnetic Catalyst for Base-Free Chan-Lam Coupling and Oxidations. 2021 , 6, 19529-19545	6
492	Ultrafine self-N-doped porous carbon nanofibers with hierarchical pore structure utilizing a biobased chitosan precursor. 2021 , 182, 445-454	5
491	Coconut Shell-Derived Activated Carbon for High-Performance Solid-State Supercapacitors. 2021 , 14, 4546	6
490	Efficient microwave absorber and supercapacitors derived from puffed-rice-based biomass carbon: Effects of activating temperature. 2021 , 594, 290-303	39
489	Preparation of SnS nanosheet-based traditional Chinese medicine slag-derived carbon composite (SnS/NC) by one-pot hydrothermal method used as anodes for lithium-ion batteries.	1
488	Effectively Regulating More Robust Amorphous Li Clusters for Ultrastable Dendrite-Free Cycling. 2021 , 8, e2101584	2
487	Hierarchically porous carbon derived from tobacco waste by one-step molten salt carbonization for supercapacitor. 1	0
486	Preparation and Performance of PAN-PAC Nanofibers by Electrospinning Process to Remove NOM from Water. 2021 , 14,	1
485	Highly Porous Activated N-Doped Carbon as an Ideal Electrode Material for Capacitive Energy Storage and Physisorption of H ₂ , CO ₂ , and CH ₄ . 2021 , 35, 14177-14187	1

484	Recent Progress in Amorphous Carbon-Based Materials for Anodes of Sodium-Ion Batteries: Synthesis Strategies, Mechanisms, and Performance. 2021 , 14, 3693-3723	3
483	CO Capture at Medium to High Temperature Using Solid Oxide-Based Sorbents: Fundamental Aspects, Mechanistic Insights, and Recent Advances. 2021 , 121, 12681-12745	35
482	Self-organized hierarchically porous carbon coated on carbon cloth for high-performance freestanding supercapacitor electrodes. 2021 , 895, 115456	8
481	Electrochemical Performance of Coaxially Wet-Spun Hierarchically Porous Lignin-Based Carbon/Graphene Fiber Electrodes for Flexible Supercapacitors. 2021 , 4, 9077-9089	3
480	Integrating polyacrylonitrile (PAN) nanoparticles with porous bacterial cellulose hydrogel to produce activated carbon electrodes for electric double-layer capacitors. 2021 , 323, 111209	3
479	Nano nickel embedded in N-doped CNTs-supported porous biochar for adsorption-reduction of hexavalent chromium. 2021 , 416, 125693	16
478	Synthesis and Raman characterization of wood sawdust ash, and wood sawdust ash-derived graphene. 2021 , 117, 108496	1
477	Wood and Black Liquor-Based N-Doped Activated Carbon for Energy Application. 2021 , 13, 9237	1
476	Porous biochar derived from tea saponin for supercapacitor electrode: Effect of preparation technique. 2021 , 40, 102773	4
475	Recent Advances in Waste Plastic Transformation into Valuable Platinum-Group Metal-Free Electrocatalysts for Oxygen Reduction Reaction. 2021 , 14, 3785-3800	4
474	Synergistic Activation for Synthesis of Sulfur and Oxygen CoDoped Porous Carbons and Their Application for Dye Adsorption and Supercapacitor. 2021 , 6, 7346-7353	2
473	B,N-Codoped Porous C with Controllable N Species as an Electrode Material for Supercapacitors. 2021 , 60, 13252-13261	4
472	Hierarchical porous carbon beads for selective CO ₂ capture. 2021 , 51, 101659	1
471	Potassium hydroxide-modified algae-based biochar for the removal of sulfamethoxazole: Sorption performance and mechanisms. 2021 , 293, 112912	7
470	Enhancing electrochemical capacitor performance through the application of nanostructured carbon materials as conducting additives. 2021 , 169, 108647	0
469	Realizing Improved Sodium-Ion Storage by Introducing Carbonyl Groups and Closed Micropores into a Biomass-Derived Hard Carbon Anode. 2021 , 13, 47728-47739	2
468	Facile route to biomass-derived 1D carbon fiber supported high-performance MnO-based nanocomposite anode material. 2021 , 29, e00322	0
467	Microwave-induced preparation of porous graphene nanosheets derived from biomass for supercapacitors. 2021 , 324, 111277	7

466	Surface characteristics and electrochemical properties of activated carbon obtained from different parts of <i>Pinus pinaster</i> . 2021 , 625, 126982	6
465	Insights into the mechanism of hydrogen peroxide activation with biochar produced from anaerobically digested residues at different pyrolysis temperatures for the degradation of BTEXS. 2021 , 788, 147718	2
464	Fabrication of nitrogen doped and hierarchically porous carbon flowers for CO ₂ adsorption. 2021 , 51, 101617	5
463	The potential for commercial scale production and application of activated carbon from cassava peels in Africa: A review. 2021 , 15, 100772	4
462	Mohr's salt assisted KOH activation strategy to customize S-doped hierarchical carbon frameworks enabling satisfactory rate performance of supercapacitors. 2021 , 876, 160203	5
461	All-solid-state Na ⁺ ion supercapacitors using Na ₃ Zr ₂ Si ₂ PO ₁₂ -polymer hybrid films as electrolyte. 2021 , 41, 102984	1
460	Porous polymer-derived ceramics: Flexible morphological and compositional controls through sol-gel chemistry.	1
459	Preparation and studying the electrical characteristics of (PS-PMMA-BaTiO ₃) nanocomposites for piezoelectric applications. 2021 ,	0
458	Recent Advances in Zinc Oxide Nanoparticles (ZnO NPs) for Cancer Diagnosis, Target Drug Delivery, and Treatment. 2021 , 13,	25
457	High energy density supercapacitors with hierarchical nitrogen-doped porous carbon as active material obtained from bio-waste. 2021 , 175, 760-769	17
456	Role of molecular size of volatile organic compounds on their adsorption by KOH-activated micro-mesoporous carbon. 2022 , 424, 127355	5
455	Activated carbon deriving from microcrystalline graphite ore as high-performance anode material for potassium-ion batteries. 2021 , 32, 24446-24458	2
454	A feasible strategy to enhance mass transfer property of carbon nanofibers electrode in vanadium redox flow battery. 2021 , 390, 138879	1
453	N-doped hierarchical porous hollow carbon spheres with multi-cavities for high performance Na-ion storage. 2021 , 506, 230170	8
452	Hierarchical porous activated carbon prepared from biowaste of lemon peel for electrochemical double layer capacitors. 2021 , 152, 106175	3
451	A review on novel activation strategy on carbonaceous materials with special morphology/texture for electrochemical storage. 2021 , 60, 572-590	21
450	The effects of different activating agents on the physical and electrochemical properties of activated carbon electrodes fabricated from wood-dust of. 2021 , 7, e07917	1
449	Synthesis and Characterization of Activated Carbon from Water Hyacinth. 2021 , 2013, 012025	

448	Synthesis of sulfur-doped porous carbon for supercapacitor and gas adsorption applications.	0
447	Preparation and capacitive storage properties of multidimensional (1-D and 2-D) nanocarbon-hybridized N-containing porous carbon for carbon/carbon supercapacitor: Nanocarbon-aided capacitance boosting. 2021 , 627, 127225	
446	Transformation of waste cornstalk into versatile porous carbon adsorbent for selective CO ₂ capture and efficient methanol adsorption. 2021 , 9, 106149	1
445	Upcycling simulated food wastes into superactivated hydrochar for remarkable hydrogen storage. 2021 , 159, 105322	1
444	Ultrahigh-surface-area activated biocarbon based on biomass residue as a supercapacitor electrode material: Tuning pore structure using alkalis with different atom sizes. 2021 , 326, 111383	6
443	Synthesis and scalability of graphene and its derivatives: A journey towards sustainable and commercial material. 2021 , 318, 128603	9
442	Preparation of novel porous carbon from hydrothermal pretreated textile wastes: Effects of textile type and activation agent on structural and adsorptive properties. 2021 , 43, 102286	3
441	Preparation and characterization of high-performance activated carbon from papermaking black-liquor at low temperature. 2021 , 159, 105292	3
440	An emerging machine learning strategy for the assisted-design of high-performance supercapacitor materials by mining the relationship between capacitance and structural features of porous carbon. 2021 , 899, 115684	4
439	Pressurized physical activation: A simple production method for activated carbon with a highly developed pore structure. 2021 , 183, 735-742	8
438	Hierarchical porous carbon from mango seed husk for electro-chemical energy storage. 2021 , 8, 100158	10
437	Upgrading of pine tannin biochars as electrochemical capacitor electrodes. 2021 , 601, 863-876	4
436	Functionalized biochar electrodes for asymmetrical capacitive deionization. 2021 , 516, 115240	6
435	Quasi-solid, bio-renewable supercapacitor with high specific capacitance and energy density based on rice electrolytes and rice straw-derived carbon dots as novel electrolyte additives. 2021 , 628, 127239	7
434	Alkaline KMnO ₄ solution pretreat hydrochar to prepare high ultra-micropore volume carbon for CH ₄ enrichment from low-concentration coalbed methane. 2021 , 303, 121301	2
433	Green preparation of hierarchical porous C/SiO _x composites from coal gangue as anodes for Li-ion batteries. 2021 , 371, 115772	1
432	Comparison of bimetallic Co-Ru nanoparticles supported on highly porous activated carbonized polyacrylonitrile with monometallic ones in ethanol steam reforming. 2021 , 9, 106429	1
431	Capacitive deionization of NaCl solution with hierarchical porous carbon materials derived from Mg-MOFs. 2021 , 277, 119618	2

430	Physicochemical properties and microwave absorption performance of Co ₃ O ₄ and banana peel-derived porous activated carbon composite at X-band frequency. 2021 , 888, 161474	6
429	Zn-MOF decorated bio activated carbon for photocatalytic degradation, oxygen evolution and reduction catalysis. 2022 , 421, 126720	4
428	Creating ultrahigh surface area functional carbon from biomass for high performance supercapacitor and facile removal of emerging pollutants. 2022 , 427, 131477	6
427	Biochar based photocatalyst for degradation of organic aqueous waste: A review. 2022 , 287, 132200	4
426	A novel surface-oxidized rigid carbon foam with hierarchical macro-nanoporous structure for efficient removal of malachite green and lead ion. 2022 , 103, 15-28	1
425	Effect of freezing pretreatment on the performance of activated carbon from coconut shell for supercapacitor application. 2022 , 306, 130934	2
424	Facile construction of highly redox active carbons with regular micropores and rod-like morphology towards high-energy supercapacitors. 2021 , 5, 3061-3072	44
423	Effect of the carbonization temperature of plant biomass on the structure, surface condition and electrical conductive properties of carbon nanoporous material. 2021 , 25,	1
422	Controllable design of defect-rich hybrid iron oxide nanostructures on mesoporous carbon-based scaffold for pseudocapacitive applications. 2021 , 13, 3662-3672	3
421	An enhanced electrochemical energy storage performance based on porous activated carbon and hard carbon derived from natural maple leaf. 2021 , 32, 3487-3497	1
420	Agricultural waste buckwheat husk derived bifunctional nitrogen, sulfur and oxygen-co-doped porous carbon for symmetric supercapacitors and capacitive deionization.	8
419	Controlled synthesis of hierarchical porous carbons with different morphologies and their application for potassium and lithium ion batteries. 2021 , 45, 9882-9891	3
418	Enhanced adsorption of malathion and phoxim by a three-dimensional magnetic graphene oxide-functionalized citrus peel-derived bio-composite. 2021 , 13, 2951-2962	0
417	Selenium infiltrated hierarchical hollow carbon spheres display rapid kinetics and extended cycling as lithium metal battery (LMB) cathodes. 2021 , 9, 18582-18593	1
416	Supercapacitors: History, Theory, Emerging Technologies, and Applications. 2021 , 417-449	1
415	Biomass-based materials for green lithium secondary batteries. 2021 , 14, 1326-1379	55
414	Constructing Hierarchical Porous Carbon of High-Performance Capacitance through a Two-Step Nitrogen-Fixation Method. 2020 , 8, 2000107	2
413	Pinecone biomass-derived activated carbon: the potential electrode material for the development of symmetric and asymmetric supercapacitors. 2020 , 44, 8591-8605	37

412	Activated Carbon Prepared from Bituminous Coal/Poplar Blends by Direct KOH Activation. 2020 , 205-215	2
411	Activated Carbon as Electrode Materials for Supercapacitors. 2020 , 113-144	16
410	Efficient, Sustainable, and Clean Energy Storage in Supercapacitors Using Biomass-Derived Carbon Materials. 2018 , 1-26	1
409	Removal of Cd(II) from Aqueous Solutions Using Red Mud/Graphene Composite. 2018 , 1044-1052	1
408	Molten Salt Conversion of Plastics into Highly Conductive Carbon Nanostructures. 2020 , 109-140	1
407	Facile synthesis of cellulose-based carbon with tunable N content for potential supercapacitor application. 2017 , 170, 107-116	38
406	Enhanced surface activation process of persulfate by modified bagasse biochar for degradation of phenol in water and soil: Active sites and electron transfer mechanism. 2020 , 599, 124904	24
405	High-performance battery-type supercapacitor based on porous biocarbon and biocarbon supported NiCo layered double hydroxide. 2020 , 837, 155529	71
404	Recent progress of biomass-derived carbon materials for supercapacitors. 2020 , 451, 227794	146
403	Carbon-Based Fibers for Advanced Electrochemical Energy Storage Devices. 2020 , 120, 2811-2878	156
402	Ultramicroporous Carbons Derived from Semi-Cycloaliphatic Polyimide with Outstanding Adsorption Properties for H ₂ , CO ₂ , and Organic Vapors. 2017 , 121, 22753-22761	13
401	Membrane-less Direct Formate Fuel Cell Using an Fe-N-Doped Bamboo Internode as the Binder-Free and Monolithic Air-Breathing Cathode. 2020 , 12, 27095-27103	5
400	Polyaspartic Acid-Derived Micro-/Mesoporous Carbon for Ultrahigh H and CH Adsorption. 2020 , 5, 10687-10695	
399	CHAPTER 1:Carbon-based CO ₂ Adsorbents. 2018 , 1-75	3
398	Waste polyethylene terephthalate (PET) plastics-derived activated carbon for CO ₂ capture: a route to a closed carbon loop. 2020 , 22, 6836-6845	22
397	Porous carbons from sustainable sources and mild activation for targeted high-performance CO ₂ capture and storage. 2020 , 1, 3267-3280	5
396	The Synthesis of Carbon Nanofiber Derived From Pineapple Leaf Fibers as a Carbon Electrode for Supercapacitor Application. 2021 , 18,	5
395	Carbon Nanosheets Decorated Activated Carbon Derived from Borassus Flabellifer Fruit Skin for High Performance Supercapacitors. 2020 , 167, 140508	4

394	Boosting rate capability of ionic liquid supercapacitors by copolymer-derived activated hollow carbon nanospheres. 2020 , 10, 1925-1931	1
393	Synthesis and characterization of graphene layers from rice husks. 2018 , 12-18	5
392	Improved Mesoporous Structure of High Surface Area Carbon Nanofiber for Electrical Double-Layer Capacitors. 2017 , 27, 192-198	7
391	Performance Improvement of Flexible Thin Film Si Solar Cells using Graphite Substrate. 2019 , 29, 317-321	1
390	Waste coffee grounds-derived nanoporous carbon nanosheets for supercapacitors. 2016 , 19, 66-71	34
389	Gas Altered Hierarchical Porous Graphene Aerogel with High Energy Density.	
388	surface reduction for accessing atomically dispersed platinum on carbon sheets for acidic hydrogen evolution. 2021 , 13, 18677-18683	2
387	High-Performance Supercapacitors Fabricated with Activated Carbon Derived from Lotus Calyx Biowaste.	
386	Enhancing Li-Ion Affinity of Molybdenum Dioxide/Carbon Fabric to Achieve High Pseudocapacitance. 2021 , 17, e2104178	2
385	Graphene-Based Cathode Materials for Lithium-Ion Capacitors: A Review. 2021 , 11,	3
384	Understanding the pore-structure dependence of supercapacitive performance for microporous carbon in aqueous KOH and H2SO4 electrolytes. 2021 , 139422	1
383	Electrospun Polyacrylonitrile/Lignin/Poly(Ethylene Glycol)-Based Porous Activated Carbon Nanofiber for Removal of Nickel(II) Ion from Aqueous Solution. 2021 , 13,	2
382	Extraction of Value-Added Minerals from Various Agricultural, Industrial and Domestic Wastes. 2021 , 14,	5
381	Facile and economical, single-step single-chemical method for conversion of palm oil fuel ash waste into graphene nanosheets. 2021 , 25, 101193	
380	Used carbon water filter as a source for high performance microporous activated carbon electrode for aqueous supercapacitor. 2021 , 44, 103399	2
379	Simple one-pot strategy for converting biowaste into valuable graphitized hierarchically porous biochar for high-efficiency capacitive storage. 2021 , 44, 103259	1
378	Adsorption of Cd(II) by petroleum coke treated with KOH activation and oxidation. 2018 , 2018, 128-131	1
377	Recognition and applications of hierarchical domain structural analysis for synthetic carbons. 2018 , 2018, 99-107	3

376	Varying Impedance Orbital Impedance Stability Graphene Based Supercapacitor Nanofiber Electrodes Utilizing A New Direct Method of Studying Impedance Based on Actual Experimental Data. 2019 , 3, 21-37	0
375	CO2 adsorption by carbonaceous materials and nanomaterials. 2020 , 173-192	1
374	Synthesis and characterization of activated carbon from Delonix regia seeds for CO2 adsorption. 2021 , 100064	1
373	Waste eliminated by waste under COVID-19 pandemic: Mixed plastic waste derived N,O-rich porous carbon nano-coral reefs for chlorophenol pollutants efficient capture. 2021 , 106700	0
372	Three birds with one stone approach to superior N/S co-doped microporous carbon for gas storage and water purification. 2021 , 133231	0
371	High-Performance Supercapacitor Materials Based on Hierarchically Porous Carbons Derived from Artocarpus heterophyllus Seed.	3
370	Fabrication of biomass-derived activated carbon with interconnected hierarchical architecture via H3PO4-assisted KOH activation for high-performance symmetrical supercapacitors. 2021 , 903, 115828	3
369	Resíduo da indústria cervejeira como precursor de carvão ativado comparado a outros resíduos agroindustriais: uma revisão. 2020 , 20, 141-148	
368	Oxygen-Rich Non-Graphitic Carbon Derived from 'Citrus sinensis' for High-Energy Density Pseudocapacitive Charge Storage. 2020 , 5, 14993-15003	
367	Waste Sawdust-Derived Nanoporous Carbon as a Positive Electrode for Lithium-Ion Storage. 2020 , 28, 1204-1210	2
366	Unraveling porogenesis in nitrogen rich K ⁺ -activated carbons. 2022 , 186, 711-723	0
365	Effect of pH and activation on macroporous carbon derived from cocoa-pods for high performance aqueous supercapacitor application. 2022 , 276, 125399	1
364	Hierarchical Porous Materials for Supercapacitors. 2020 ,	
363	Seaweed-derived hierarchically porous carbon for highly efficient removal of tetracycline.	
362	Coeffect of pyrolysis temperature and potassium phosphate impregnation on characteristics, stability, and adsorption mechanism of phosphorus-enriched biochar. 2022 , 344, 126273	3
361	Poly(1,5-diaminonaphthalene)-Grafted Monolithic 3D Hierarchical Carbon as Highly Capacitive and Stable Supercapacitor Electrodes. 2021 , 13, 53736-53745	
360	Preparation of Straw Porous Biochars by Microwave-Assisted KOH Activation for Removal of Gaseous H ₂ S.	5
359	Highly active catalysis of methanol oxidative carbonylation over nano Cu ₂ O supported on micropore-rich mesoporous carbon. 2021 , 303, 120890	9

358	Valorization of agricultural waste as a carbon materials for selective separation and storage of CO ₂ , H ₂ and N ₂ . 2021 , 155, 106297	4
357	Recent Development of Carbon-based Electrode for Vanadium Redox Flow Battery. 2020 , 88, 344-346	3
356	Flexible Fibre Supercapacitor Using Synthesized Biomass-Based Activated Carbon and Few-Layer Graphene for Wearable Electronic Devices. 2021 , 1-7	
355	The role of nanomaterials for supercapacitors and hybrid devices. 2021 , 19, 99-136	1
354	Porous Co, N co-doped carbon derived from tea residue as efficient cathode catalyst in microbial fuel cells for swine wastewater treatment and the microbial community analysis. 2022 , 45, 102471	3
353	Synthetic Approach to Rice Waste-Derived Carbon-Based Nanomaterials and Their Applications. 2021 , 1, 109-159	4
352	Electrochemical storage reactions of hydrogen in activated carbon from phenolic resin. 2021 ,	2
351	Exploring effects of novel chemical modification of biochar on soil water retention and crack suppression: towards commercialization of production of biochar for soil remediation. 1	2
350	Processing and activation of tire-derived char: A review. 2021 , 155, 111860	2
349	Ground coffee waste-derived carbon for adsorptive removal of caffeine: Effect of surface chemistry and porous structure. 2021 , 151669	1
348	Comparative studies on physical and chemical routes for animal waste-derived activated carbon for microwave absorption in the X-band. 2022 , 33, 3425	0
347	A study on activation mechanism in perspective of lignin structures and applicability of lignin-derived activated carbons for pollutant absorbent and supercapacitor electrode. 2021 , 133045	0
346	Preparation of Porous Activated Carbon Materials and Their Application in Supercapacitors. 2022 , 587-612	0
345	Preparation and application of microporous carbons as excellent adsorbents for reversible iodine capture and efficient removal of dye. 2021 , 120, 108718	0
344	Assessment of Biochar Produced by Flame-Curtain Pyrolysis as a Precursor for the Development of an Efficient Electric Double-Layer Capacitor. 2021 , 14, 7671	2
343	Magnetic nitrogen-doped carbon derived from silk cocoon biomass: a promising and sustainable support for copper. 1	3
342	Activated Carbon from Palm Date Seeds for CO Capture. 2021 , 18,	1
341	Fabrication of high density and nitrogen-doped porous carbon for high volumetric performance supercapacitors. 2021 , 103657	1

340	Recent advances in developing engineered biochar for CO ₂ capture: An insight into the biochar modification approaches. 2021 , 9, 106869	3
339	Insight into the Supercapacitive Behavior of Activated Hollow Porous Carbon Spheres in Different Electrolytes.	1
338	High Surface Area N-Doped Carbon Fibers with Accessible Reaction Sites for All-Solid-State Lithium-Sulfur Batteries. 2021 , e2105678	3
337	Nanodefects Assisted Removal of Reactive Dyes Using Biomass Derived Reduced 3D OGFs.	
336	A comparative overview of carbon anodes for nonaqueous alkali metal-ion batteries. 2021 , 9, 27140-27169	1
335	Microwave Synthesis, Characterization and Perspectives of Wood Pencil-Derived Carbon. 2022 , 12, 410	0
334	Facile synthesis of porous helical activated carbon fibers from waste tea and their electrochemical energy storage. 1	0
333	Liquefaction pitch-based porous carbon: Preparation and relationship between pore structure and electrochemical properties. 2022 , 122, 108824	
332	High capacitive storage behavior of hierarchically porous hollow-carbon spheres derived from the coupling of template-directing and post-activation methodology. 2022 , 122, 108816	0
331	Highly stable Megalopolis lignite based N and S self-doped hierarchically porous activated carbons for high performance supercapacitors and ash content effects on performance. 2022 , 46, 103817	1
330	Bio-waste valorisation: Agricultural wastes as biosorbents for removal of (in)organic pollutants in wastewater treatment. 2022 , 9, 100239	8
329	Bio-composite nanoarchitectonics for graphene tofu as useful source material for capacitive deionization. 2022 , 526, 115461	1
328	Direct carbonization of sodium lignosulfonate through self-template strategies for the synthesis of porous carbons toward supercapacitor applications. 2022 , 636, 128191	6
327	General biotemplating of hierarchically ultra-vesicular microspheres for superior microwave absorption. 2022 , 431, 133925	1
326	Form-Stable phase change composites based on porous carbon derived from polyacrylonitrile hydrogel. 2022 , 431, 134206	2
325	Structural composite energy storage devices \square review. 2022 , 24, 100924	5
324	Strategic valorization of bio-oil distillation sludge via gasification: A comparative study for reactivities, kinetics, prediction and ash deposition. 2022 , 433, 134334	2
323	One-step sonochemical fabrication of biomass-derived porous hard carbons; towards tuned-surface anodes of sodium-ion batteries.. 2021 , 611, 578-587	6

322	Ambient-air in situ fabrication of high-surface-area, superhydrophilic, and microporous few-layer activated graphene films by ultrafast ultraviolet laser for enhanced energy storage. 2022 , 94, 106902	1
321	Modification, Production, and Methods of KOH-Activated Carbon.	0
320	A sustainable one-step strategy for highly graphitized capacitive carbons with hierarchical micro/meso/macro porosity.	2
319	Modulating the porosity of carbons for improved adsorption of hydrogen, carbon dioxide, and methane: a review.	1
318	Mesoporous electrode from human hair and bio-based gel polymer electrolyte for high-performance supercapacitor. 2022 , 123, 108879	6
317	Study of electrochemical properties of activated carbon electrode synthesized using bio-waste for supercapacitor applications. 1	1
316	Supercapacitor Electrode Based on Agricultural Waste Derived Biochar Materials. 2022 , 891-896	
315	Preparing an activated carbon from biomass by chemical activation. 2022 , 2022, 30-34	
314	Application of Microbes in Synthesis of Electrode Materials for Supercapacitors. 2022 , 39-92	0
313	Functionalized mesoporous magnetic biochar for methylene blue removal: Performance assessment and mechanism exploration. 2022 , 121, 108795	1
312	Hybrid Carbon Nanofibers Derived from MXene Nanosheets and Aromatic Poly(ether amide) for Self-Standing Electrochemical Energy Storage Materials. 2100877	2
311	Synthesis, characterisation and carbon dioxide capture capacities of hierarchically porous Starbons [□] .	1
310	Techno-economic assessment of superactivated hydrochar production by KOH impregnation compared to direct chemical activation. 1	0
309	Design, synthesis, and performance of adsorbents for heavy metal removal from wastewater: a review. 2022 , 10, 1047-1085	8
308	Green and Affordable Manufacturing Method for Multi-Scale Porous Carbon Nanofibers and Its Application in Vanadium Redox Flow Battery.	0
307	Preparation of ZnO-Incorporated Porous Carbon Nanofibers and Adsorption Performance Investigation on Methylene Blue.. 2022 , 7, 2198-2204	2
306	The Mechanochemical Synthesis and Activation of Carbon-Rich EConjugated Materials.. 2022 , e2105497	1
305	Optimizing the Properties of Hybrids Based on Graphene Oxide for Carbon Dioxide Capture.. 2022 , 61, 1332-1343	1

- 304 Recent advances in biochar technology for textile dyes wastewater remediation: A review.. **2022**, 209, 112841 8
- 303 Mesoporous and defective activated carbon cathode for AlCl₄⁻ anion storage in non-aqueous aluminium-ion batteries. **2022**, 191, 195-204 2
- 302 Bio/KOH ratio effect on activated biochar and their dye based wastewater depollution. **2022**, 162, 105452 1
- 301 Coupled effect of TiO₂-x and N defects in pyrolytic waste plastics-derived carbon on anchoring polysulfides in the electrode of Li-S batteries. **2022**, 408, 139924 0
- 300 Highly graphitized porous biocarbon nanosheets with tunable Micro-Meso interfaces and enhanced layer spacing for CO₂ capture and LIBs. **2022**, 433, 134464 3
- 299 Adsorption of hyaluronan saccharides on the surface of a single walled carbon nanotube. A computational study. **2022**, 584, 152599 0
- 298 Development of cost-effective PCM-carbon foam composites for thermal energy storage. **2022**, 8, 1696-1703 4
- 297 Bio-inspired hierarchical nanoporous carbon derived from water spinach for high-performance supercapacitor electrode materials. 2
- 296 A novel approach to recovery of lithium element and production of holey graphene based on the lithiated graphite of spent lithium ion batteries. **2022**, 436, 135011 2
- 295 Microwave-assisted synthesis of nitrogen-doped pineapple leaf fiber-derived activated carbon with manganese dioxide nanofibers for high-performance coin- and pouch-cell supercapacitors. **2022**, 7, 100434 2
- 294 An effective pre-burning treatment boosting adsorption capacity of sorghum distillers' grain derived porous carbon. **2022**, 124, 108914 0
- 293 Activated green carbon-based 2-D nanofabric mats for ultra-flexible all-solid-state supercapacitor. **2022**, 49, 104193 2
- 292 Investigating the role of metals loaded on nitrogen-doped carbon-nanotube electrodes in electroenzymatic alcohol dehydrogenation. **2022**, 307, 121195 4
- 291 Carbon-Based Monoliths with Improved Thermal and Mechanical Properties for Methane Storage. 4
- 290 Renewable spent mushroom compost-derived carbon for solid-state supercapacitors as a sustainable alternative. 4
- 289 Carbon-Based Monoliths with Improved Thermal and Mechanical Properties for Methane Storage. 4
- 288 Carbon-Based Monoliths with Improved Thermal and Mechanical Properties for Methane Storage. 4
- 287 Physical and chemical aspects of metal oxide-carbon composites. **2022**, 3-24 4

286	Preparation of biochar from constructed wetland plant and its adsorption performance towards Cu.. 2022 , 1	
285	Comparative Behavior of Viscose-Based Supercapacitor Electrodes Activated by KOH, HO, and CO.. 2022 , 12,	0
284	Viscose-Derived Activated Carbons Fibers as Highly Efficient Adsorbents for Dimethoate Removal from Water.. 2022 , 27,	1
283	Templating synthesis of porous carbons for energy-related applications: A review. 2022 , 37, 25-45	2
282	Impacts of temperatures and phosphoric-acid modification to the physicochemical properties of biochar for excellent sulfadiazine adsorption. 2022 , 4, 1	2
281	Synthesis of Collagen-Derived Carbons. 2022 , 193-241	
280	Carbyne Ring Activated Using ZnCl for Hydrogen Adsorption: DFT Study.. 2022 , 7, 10100-10114	0
279	Successful Manufacturing Protocols of N-Rich Carbon Electrodes Ensuring High ORR Activity: A Review. 2022 , 10, 643	1
278	Preparation of ultramicroporous volume carbon using high-speed ball-milling and its selective adsorption of CH ₄ in low-concentration coalbed methane. 2022 , 57, 6914-6928	0
277	Sustainable Sweet and Salty Synthesis of Hierarchical Porous Carbon for Lithium Sulfur Batteries.	0
276	Synthetic Methodologies and Energy Storage/Conversion Applications of Porous Carbon Nanosheets: A Systematic Review. 2022 , 36, 3420-3442	3
275	Recent progress on supercapacitive performance of agrowaste fibers: a review. 1-43	1
274	Facile Synthesis of Sustainable Biomass-Derived Porous Biochars as Promising Electrode Materials for High-Performance Supercapacitor Applications.. 2022 , 12,	1
273	Nitrogen-doped hierarchically porous carbon obtained via single step method for high performance supercapacitors. 2022 , 47, 12829-12840	0
272	High-performance supercapacitors fabricated with activated carbon derived from lotus calyx biowaste. 2022 , 189, 587-600	3
271	Insights into the highly efficient treatment of dyeing wastewater using algal bloom derived activated carbon with wide-range adaptability to solution pH and temperature.. 2022 , 349, 126883	0
270	Carbon-based sorbents for hydrogen storage: A state of the art on challenges and their sustainability at operating conditions for renewable energy.. 2022 ,	0
269	KOH activated nitrogen and oxygen co-doped tubular carbon clusters as anode material for boosted potassium-ion storage capability.. 2022 ,	

268	Oxygen self-doping formicary-like electrocatalyst with ultrahigh specific surface area derived from waste pitaya peels for high-yield H ₂ O ₂ electrosynthesis and efficient electro-Fenton degradation. 2022 , 289, 120687	0
267	Multifunctional quasi-solid-state zinc-ion hybrid supercapacitors beyond state-of-the-art structural energy storage. 2022 , 24, 100654	1
266	Statistical evaluation of cow-dung derived activated biochar for phenol adsorption: Adsorption isotherms, kinetics, and thermodynamic studies.. 2022 , 127030	3
265	A comparative study of chemical treatment by MgCl ₂ , ZnSO ₄ , ZnCl ₂ , and KOH on physicochemical properties and acetaminophen adsorption performance of biobased porous materials from tree bark residues. 2022 , 642, 128626	7
264	Ultralight biomass-based carbon aerogel with hierarchical pore structure fabricated using unidirectional freeze casting and potassium hydroxide activation. 2022 , 317, 132081	1
263	Three-dimensional activated carbon nanosheets modified by graphitized carbon dots: One-step alkali pyrolysis preparation and supercapacitor applications. 2022 , 51, 104515	2
262	Waste chicken bone-derived porous carbon materials as high performance electrode for supercapacitor applications. 2022 , 51, 104378	1
261	Nanoarchitectonics of polyaniline-derived porous carbons for efficient adsorptive denitrogenation of liquid fuel. 2022 , 320, 123970	0
260	Zinc-ion hybrid supercapacitors with ultrahigh areal and gravimetric energy densities and long cycling life. 2022 , 70, 480-491	0
259	MoS ₂ Anchored on Agar-Derived 3D Nitrogen-Doped Porous Carbon for Electrocatalytic Hydrogen Evolution Reaction and Lithium-Ion Batteries. 2022 , 6, 2100393	0
258	Borassus flabellifer Fruit Flesh Derived Hierarchical Porous Partly Graphitic Carbon as a Sustainable Electrode for Supercapacitors. 2022 , 36, 638-654	1
257	A Study on Electron Acceptor of Carbonaceous Materials for Highly Efficient Hydrogen Uptakes. 2021 , 11, 1524	0
256	Supramolecular-mediated ball-in-ball porous carbon nanospheres for ultrafast energy storage. 2022 , 4,	2
255	Porous carbon cubes decorated with cobalt nanoparticles for oxygen evolution catalysis in Zn-air batteries. 2022 , 46, 6755-6765	
254	Biomass-Derived Porous Carbon from Agar as an Anode Material for Lithium-Ion Batteries.. 2021 , 12,	1
253	Transforming Plastic Waste into Porous Carbon for Capturing Carbon Dioxide: A Review. 2021 , 14, 8421	2
252	Rice Hull-Derived Carbon for Supercapacitors: Towards Sustainable Silicon-Carbon Supercapacitors.. 2021 , 13,	1
251	Bismuth Nanoclusters/Porous Carbon Composite: A Facile Ratiometric Electrochemical Sensing Platform for Pb Detection with High Sensitivity and Selectivity.. 2022 , 7, 1132-1138	1

- 250 Investigations of conducting polymers, carbon materials, oxide and sulfide materials for supercapacitor applications: a review. 1 3
- 249 A novel highly dispersed tetra-metal nano heterogeneous ozone catalyst derived from microbial adsorption and in situ pyrolysis. **2021**, 32, 065701 1
- 248 Conversion of Plastic Waste to Carbon-Based Compounds and Application in Energy Storage Devices.. **2022**, 7, 13403-13435 5
- 247 Soybean root-derived heteroatoms co-doped porous carbon with ultra-high specific surface area for high performance supercapacitors. **2022**, 109044 0
- 246 In-situ synthesis of atomic Co-Nx sites in Holey Hollow Carbon nanospheres for efficiency Oxygen Reduction Reaction electrocatalyst. **2022**, 165022 0
- 245 Hard Carbons for Use as Electrodes in Li-S and Li-ion Batteries.. **2022**, 12, 2
- 244 Hierarchical porous carbon fabricated by NaCl-activated Artemisia argyi rod as electrode material for high-performance supercapacitor. 1 0
- 243 Adsorption of water pollutants using H3PO4-activated lignocellulosic agricultural waste: a mini review. 1-13 0
- 242 Table_1.DOCX. **2020**,
- 241 Data_Sheet_1.doc. **2018**,
- 240 [Research progress in application of metal-organic framework-derived materials to sample pretreatment]. **2021**, 39, 941-949
- 239 Processing-properties-performance triad relationship in a mesoporous carbon materials-based supercapacitor device.. **2022**, 12, 12631-12646
- 238 Rapeseed meal-derived N, S self-codoped porous carbon materials for supercapacitors.
- 237 Progress on organic potassium salts involved synthesis of porous carbon nanomaterials: microstructure engineering for advanced supercapacitors. 2
- 236 Nitrogen-Enriched Activated Carbons Via Dual N-Doping Processes: Electrode Material for High Gravimetric- and Volumetric-Performance Supercapacitor.
- 235 Status and perspectives of hierarchical porous carbon materials in terms of high-performance lithium-sulfur batteries. 6
- 234 PtRu Dimer Electrocatalyst with Electron Redistribution for Hydrogen Evolution Reaction. **2022**, 12, 5540-5548 3
- 233 Controlled synthesis of graphene oxide/silica hybrid nanocomposites for removal of aromatic pollutants in water.. **2022**, 12, 7060 0

232	High Graphitic Carbon Derived from Coconut Coir Waste by Promoting Potassium Hydroxide in the Catalytic Graphitization Process for Lithium-Ion Battery Anodes.	1
231	Hollow carbon sphere-supported Pt/CoO hybrid with excellent hydrogen evolution activity and stability in acidic environment. 2022 , 121503	3
230	Ball milling combined with activation preparation of honeycomb-like porous carbon derived from peony seed shell for high-performance supercapacitors. 1	1
229	Carbon Aerogels From Softwood Kraft Lignin for High Performance Supercapacitor Electrodes. 2022 , 9,	0
228	Activation-Induced Surface Modulation of Bio-Waste-Derived Hierarchical Porous Carbon for Supercapacitors.	1
227	Copper-doped activated carbon from amorphous cellulose for hydrogen, methane and carbon dioxide storage. 2022 ,	1
226	Study on adsorption of low-concentration methyl mercaptan by starch-based activated carbon.. 2022 , 302, 134901	3
225	Processing of aerogels and their applications toward CO adsorption and electrochemical reduction: a review.. 2022 , 1	0
224	ReviewRecent Advances in Development of Porous Carbon-Based Electrocatalysts for Water-Splitting Reaction.	
223	A spongy Rhizophora mucronata derived ultra-high surface area activated carbon for high charge density supercapacitor device. 2022 , 50, 104698	2
222	Fabrication of heteroatom-self-doped hierarchical porous carbon from soy protein isolate hydrogel for high-performance supercapacitors via a double-effect strategy of template-activation. 2022 , 338, 111912	0
221	Novel industrial waste-based shape-stabilized composite phase change materials with high heat storage performance from calcium carbide furnace dust. 2022 , 242, 111745	1
220	Carbon spheres synthesized from KHCO ₃ activation of glucose derived hydrochar with excellent CO ₂ capture capabilities at both low and high pressures. 2022 , 294, 121193	0
219	Carbon charge population and oxygen molecular transport regulated by program-doping for highly efficient 4e-ORR. 2022 , 444, 136560	0
218	Novel 2D/2D NiCo ₂ O ₄ /ZnCo ₂ O ₄ @rGO/CNTs self-supporting composite electrode with high hydroxyl ion adsorption capacity for asymmetric supercapacitor. 2022 , 127, 236-244	0
217	General overview of sodium, potassium, and zinc-ion capacitors. 2022 , 913, 165216	2
216	Nanostructured micro/mesoporous graphene: removal performance of volatile organic compounds. 2022 , 12, 14570-14577	
215	Adsorption of fulvic acid on mesopore-rich activated carbon with high surface area.. 2022 , 155918	0

214	Recent Progress in Synthesis and Application of Activated Carbon for CO ₂ Capture. 2022 , 8, 29	0
213	Constructing micropore-rich nitrogen-doped carbon for high-performance supercapacitor and adsorption of carbon dioxide.	0
212	Preparation of Carbon Aerogels from Polymer-Cross-Linked Xerogel Powders without Supercritical Fluid Drying and Their Application in Highly Selective CO ₂ Adsorption.	1
211	Adsorption Equilibrium, Thermodynamic, and Kinetic Study of O ₂ /N ₂ /CO ₂ on Functionalized Granular Activated Carbon.	1
210	Nanodefects assisted removal of reactive dyes using biomass derived reduced 3D-OGFs. 2022 , 132257	0
209	Three-dimensional high graphitic porous biomass carbon from dandelion flower activated by K ₂ FeO ₄ for supercapacitor electrode. 2022 , 52, 104889	1
208	Coal-based hierarchically porous carbon nanofibers as high-performance anode for sodium-ion batteries.	1
207	One-Pot Synthesis of Rubber Seed Shell-Derived N-Doped Ultramicroporous Carbons for Efficient CO ₂ Adsorption. 2022 , 12, 1889	
206	A Simple Hydrothermal Synthesis of Flower-like NiCo ₂ S ₄ @Biomass-graded Porous Carbon with Structural Synergy and Excellent Capacitive Performance. 2022 , 7,	
205	A Weed-Derived Hierarchical Porous Carbon with a Large Specific Surface Area for Efficient Dye and Antibiotic Removal. 2022 , 23, 6146	1
204	Shrimp Waste-derived Porous Carbon Adsorbent: Performance, Mechanism, and Application of Machine Learning. 2022 , 129266	1
203	Enhanced electrochemical performance of flexible asymmetric supercapacitor based on novel nanostructured activated fullerene anchored zinc cobaltite. 2022 , 165753	3
202	Closing the Biorefinery of the Hazelnut Shells Exploitation: Conversion of the Hydrochar Recovered after Levulinic Acid Production into Active Carbons and Their Use for CO ₂ and Methylene Blue Adsorption.	
201	Facile Synthesis of Templated Activated Carbon from Cellulose Nanofibers and MgO Nanoparticles via Integrated Carbonization-activation Method as an Eco-friendly Supercapacitor. 2022 ,	0
200	Adsorption properties of templated nanoporous carbons consisting of 1-2 graphene layers. 2022 ,	1
199	Free-standing and binder-free porous monolithic electrodes prepared via sol-gel processes.	
198	Porosity-induced improvement in KOH activation of chitin nanofiber-based porous carbon leading to ultrahigh specific capacitance.	2
197	Lokta paper-derived free-standing carbon as a binder-free electrode material for high-performance supercapacitors. 2022 , e00450	

- 196 Enhanced electrochemical performance of porous carbon from wheat straw as remolded by hydrothermal processing. **2022**, 156905 ○
- 195 Modification of biomass-derived biochar: A practical approach towards development of sustainable CO₂ adsorbent. ○
- 194 A Light-Permeable Solar Evaporator with Three-Dimensional Photocatalytic Sites to Boost Volatile-Organic-Compound Rejection for Water Purification. ○
- 193 Scale-up of Solvent-free, Mechanochemical Precursor Synthesis for Nanoporous Carbon Materials via Extrusion. ○
- 192 Nanoarchitectonics and electrochemical properties of chromium-doped supramolecular carbon material. **2022**, 128, ○
- 191 Effects of activation parameters on Zeolitic imidazolate framework JUC-160-derived, nitrogen-doped hierarchical nanoporous carbon and its volatile iodine capture properties. **2022**, 129478 ○
- 190 Biomass-derived nitrogen-rich porous carbon composite for supercapacitor application. **2022**, 33, 14793-14804 ○
- 189 Integrated gas expansion and activation strategy to prepare shaddock peel-derived nitrogen doped honeycomb carbon for high performance supercapacitor. ○
- 188 A multifunctional potassium peroxodisulfate activation strategy to construction of N, S co-doped carbon nanosheets for high-performance Zn-ion hybrid supercapacitors. ○
- 187 Spin engineering of single-site metal catalysts. **2022**, 3, 100268 2
- 186 Activated carbons from the Amazonian biomass andiroba shells applied as a CO₂ adsorbent and a cheap semiconductor material. **2022**, 62, 102071 ○
- 185 Efficiently treating waste nylon-tire to prepare sulfur and nitrogen doped porous carbon material via pyrolysis and activation. **2022**, 10, 108103 ○
- 184 Preparation of Quercus mongolica leaf-derived porous carbon with a large specific surface area for highly effective removal of dye and antibiotic from water. **2022**, 15, 104031 ○
- 183 Green preparation of N-doped hierarchical porous carbon composites from humic acid extraction residue of lignite as anodes for lithium/sodium-ion batteries. **2022**, 648, 129400 ○
- 182 Carbon-based monoliths with improved thermal and mechanical properties for methane storage. **2022**, 324, 124753 ○
- 181 Rational synthesis of microporous carbons for enhanced post-combustion CO₂ capture via non-hydroxide activation of air carbonised biomass. **2022**, 12, 20080-20087 1
- 180 Regenerated Cellulose Fibers as Defined Precursor Material for Activated Carbon. ○
- 179 Hydrothermal Synthesis of Boron- Doped Porous Carbon from Azadirachta Indica Wood for Supercapacitor Application. ○

- 178 The application of biomass-based carbon materials in flexible all-solid supercapacitors. **2022**, 33, 15422-15432 ○
- 177 Quasi-Solid, Bio-Renewable Supercapacitors Based on Cassava Peel and Cassava Starch and the Use of Carbon Dots as Performance Enhancers. ○
- 176 Laser Processing of Flexible In-Plane Micro-supercapacitors: Progresses in Advanced Manufacturing of Nanostructured Electrodes. 4
- 175 Sono-exfoliated graphene-like activated carbon from hazelnut shells for flexible supercapacitors. 2
- 174 Heteroatom-Doped Porous Carbons as Effective Adsorbers for Toxic Industrial Gasses.
- 173 Synergistic engineering of cobalt selenide and biomass-derived S, N, P co-doped hierarchical porous carbon for modulation of stable Li-S batteries. **2022**, 4
- 172 Revealing the super capacitive performance of N-doped hierarchical porous activated carbon in aqueous, ionic liquid, and redox additive electrolytes. **2022**, 53, 105189 1
- 171 Oaks-derived activated carbon by trace alkali-induced catalytic steam activation for electrochemical capacitor applications. **2022**, 53, 105090
- 170 Enhancement of the performance of a proton battery. **2022**, 543, 231808 1
- 169 Biomass blend derived porous carbon for aqueous supercapacitors with commercial-level mass loadings and enhanced energy density in redox-active electrolyte. **2022**, 601, 154202 1
- 168 Facile and low-cost fabrication of interconnected hierarchically porous carbon for high-performance supercapacitors. **2022**, 921, 166127 1
- 167 A Review on Electrode Materials of Fast-Charging Lithium-Ion batteries. ○
- 166 Boron-doped activated carbon from the stems of *Prosopis juliflora* as an effective electrode material in symmetric supercapacitors. ○
- 165 Hydrocarbons removal from synthetic bilge water by adsorption onto biochars of dead *Posidonia oceanica*. ○
- 164 Influence mechanism of trace K element on NO adsorption of coal-based carbon materials at low temperature. **2022**, 50, 884-895
- 163 Structural and Electrochemical Properties of KOH-Activated Carbon Soot Derived from *Sinapis alba* (Yellow Mustard Oil) for EDLC Application. ○
- 162 Perspectives of Engineered Biochar for Environmental Applications: A Review. **2022**, 36, 7940-7986 2
- 161 Porous Polyimide-Based Activated Carbon Fibers for CO₂ Capture and Supercapacitor. ○

- 160 Potential-Mediated Recycling of Copper From Brackish Water by an Electrochemical Copper Pump. 2203189 1
- 159 Magnetic Coconut Shell-Derived Activated Carbon Adorned with Cu₂O Nanoparticles: A Green and Efficient Porous Catalyst for N-Arylation of Hetero-Aromatics in Eutectic Medium. **2022**, 7, 0
- 158 Understanding Synthesis-Structure-Performance Correlations of Nanoarchitected Activated Carbons for Electrochemical Applications and Carbon Capture. 2204714 4
- 157 Biomass-Derived Advanced Carbon-Based Electrocatalysts for Oxygen Reduction Reaction. **2022**, 2, 155-177 1
- 156 Bio-Based Carbon Materials for High-Performance Supercapacitors. **2022**, 12, 2931 1
- 155 Atmospheric pressure plasma-jet treatment of polyacrylonitrile-nonwovens: Activation leading to high surface area carbon electrodes. 0
- 154 Sustainable polyurethane-derived heteroatom-doped electrode materials for advanced supercapacitors. 0
- 153 Nanotechnology Adds Value to Optical and Sensor Characteristics of the Composite Material. 908, 89-99 0
- 152 A Review with Updated Perspectives on Nutritional and Therapeutic Benefits of Apricot and the Industrial Application of Its Underutilized Parts. **2022**, 27, 5016 0
- 151 Facile Large-Scale Synthesis of Lightweight Hierarchical Porous Carbon with Satisfactory Electrochemical Performance for Supercapacitors. 0
- 150 3D printing CO₂-activated carbon nanotubes host to promote sulfur loading for high areal capacity lithium-sulfur batteries. 1
- 149 Modified Activated Carbon as an Effective Hydrogen Adsorbent. **2022**, 15, 6122 0
- 148 Low-temperature organic solvent-based synthesis of amorphous porous carbon nanoparticles with high specific surface area at ambient atmosphere. **2022**, 0
- 147 Pineapple leaf fibers (PALF) as the sustainable carbon anode material for lithium-ion batteries. **2022**, 33, 18961-18981 0
- 146 Potassium-Assisted Fabrication of Intrinsic Defects in Porous Carbons for Electrocatalytic CO₂ Reduction. 2205933 4
- 145 Bimetallic salts template-assisted strategy towards the preparation of hierarchical porous polyimide-derived carbon electrode for supercapacitor. **2022**, 128, 109283 0
- 144 Pore creation nanoarchitectonics from non-porous metal-organic framework to porous carbon for adsorptive elimination of sulfanilamide and chloroxylenol from aqueous solution. **2022**, 439, 129659 0
- 143 Synthesis of carbon molecular sieves from agricultural residues: Status, challenges and prospects. **2022**, 214, 114022 0

142	Highly scalable and environment-friendly conversion of low-grade coal to activated carbon for use as electrode material in symmetric supercapacitor. 2022 , 329, 125385	2
141	Recent advances in biodiesel production using functional carbon materials as acid/base catalysts. 2022 , 237, 107421	2
140	Removal of car battery heavy metals from wastewater by activated carbons: a brief review.	0
139	Utilization of waste sludge: Activation/modification methods and adsorption applications of sludge-based activated carbon. 2022 , 49, 103111	0
138	Understanding effects of potassium activator on the porous structure and adsorption performance of bluecoke-based porous powder during microwave heating. 2022 , 366, 120249	1
137	Biomass-derived graphene-like carbon nanoflakes for advanced supercapacitor and hydrogen evolution reaction. 2022 , 928, 167176	0
136	Recognizing the potential of K-salts, apart from KOH, for generating porous carbons using chemical activation. 2023 , 451, 139045	0
135	Synthesis, properties, and application of biomass-derived graphene-like material. 2022 , 189-208	0
134	Nanostructured materials for electrochemical capacitors. 2022 ,	0
133	Natural nori-based porous carbon composite for sustainable lithium-sulfur batteries.	0
132	The Effect of Activation on the Structure of Biochars Prepared from Wood and from Posidonia Oceanica: A Spectroscopic Study. 2022 , 2, 286-304	0
131	Porous carbon nanofibers derived from low-softening-point coal pitch towards all-carbon potassium ion hybrid capacitors. 2022 , 41, 3706-3716	1
130	Value-Added Products from Catalytic Pyrolysis of Lignocellulosic Biomass and Waste Plastics over Biochar-Based Catalyst: A State-of-the-Art Review. 2022 , 12, 1067	0
129	Micro-meso porous biocarbons derived from a typical biopolymer with superior adsorption capacity for methylene blue dye and high-performance supercapacitors. 2022 , 116877	0
128	Binder-Free Wood Converted Carbon for Enhanced Water Desalination Performance. 2208040	0
127	Laser-derived porous carbon as a metal-free electrocatalyst for oxygen evolution reaction. 2022 , 100221	0
126	Symmetric supercapacitors with cellulose-derived carbons and Na ₂ SO ₄ electrolytes operating in a wide temperature range. 2022 , 55, 105725	1
125	Nanoarchitectonics with beetroot peel waste derived activated carbon for improved electrochemical performances in supercapacitors using redox additive electrolyte. 2022 , 924, 116857	0

- 124 Na₄Co₃P₄O₁₅ in situ transformation to Co(OH)₂/CoO(OH) nanoforms for aqueous supercapacitor using redox additive electrolyte. **2022**, 286, 116051 0
- 123 Recent advancements in engineered biopolymeric-nanohybrids: A greener approach for adsorptive-remediation of noxious metals from aqueous matrices. **2022**, 215, 114398 0
- 122 Supermolecule-mediated defect engineering of porous carbons for zinc-ion hybrid capacitors. **2022**, 103, 107827 0
- 121 Active Pharmaceutical Ingredients Sequestered from Water Using Novel Mesoporous Activated Carbon Optimally Prepared from Cassava Peels. **2022**, 14, 3371 1
- 120 Bio-Based Porous Aerogel with Bionic Structure and Hydrophobic Polymer Coating for Efficient Absorption of Oil/Organic Liquids. **2022**, 14, 4579 1
- 119 Reusing Waste Coffee Grounds as Electrode Materials: Recent Advances and Future Opportunities. 2200093 0
- 118 Microwave Preparation of Porous Graphene from Wasted Tires and Its Pyrolysis Behavior. 0
- 117 Advances in Micro-/Mesopore Regulation Methods for Plant-Derived Carbon Materials. **2022**, 14, 4261 0
- 116 Enhanced Carbon Capture Behavior of Carbon Fibers via Ionic Liquid Modification. 0
- 115 K₂FeO₄-Assisted Preparation of Discarded Badminton Shuttlecock Feather-Derived Hierarchical Porous Carbon for High-Performance Supercapacitors. 0
- 114 Recent progress on freestanding carbon electrodes for flexible supercapacitors. **2022**, 37, 875-897 2
- 113 New insights into the effective removal of Basic Red 46 onto activated carbon produced from pomegranate peels. 0
- 112 Bio-Inspired Synthesis of Carbon-Based Nanomaterials and Their Potential Environmental Applications: A State-of-the-Art Review. **2022**, 10, 169 1
- 111 Fractional distillation of biocrude from hydrothermal liquefaction of microalgae: Upgrading of fuel properties. **2022**, 102888 1
- 110 Production of biochar from Keppaphycus alvarezii (macroalgae) for the removal of eosin yellow: desorption, kinetic, and isotherm studies. 0
- 109 Comprehensive study of used cigarette filters-derived porous activated carbon for Supercapacitors: From biomass waste to sustainable energy source. **2022**, 925, 116915 1
- 108 Templated Nitrogen-, Iron-, and Cobalt-Doped Mesoporous Nanocarbon Derived from an Alkylresorcinol Mixture for Anion-Exchange Membrane Fuel Cell Application. 14050-14061 3
- 107 High-performance moisture-diffusion energy harvester using catalytic activated carbon derived from biomass. **2022**, 379, 134679 0

- 106 Controllable adjustment strategies for activated carbon and application in supercapacitors with both ultra-high capacitance and rate performance. **2022**, 130, 109466 1
- 105 Ternary-doped hierarchical porous carbons derived from durian kernel as electrode materials for efficient energy storage devices. **2022**, 130, 109451 1
- 104 Nitrogen-doped hierarchically constructed interconnected porous carbon nanofibers derived from polyaniline (PANI) for highly selective CO₂ capture and effective methanol adsorption. **2022**, 10, 108847 0
- 103 Valorizing high-fraction bio-oil to prepare 3D interconnected porous carbon with efficient pore utilization for supercapacitor applications. **2023**, 239, 107538 0
- 102 Sustainable chicken manure-derived carbon as a metal-free bifunctional electrocatalyst in Zn-air battery. **2022**, 0
- 101 Advances of Carbon Materials for Dual-Carbon Lithium-Ion Capacitors: A Review. **2022**, 12, 3954 0
- 100 Hierarchically Porous Graphene Aerogels with Abundant Oxygenated Groups for High-Energy-Density Supercapacitors. 1
- 99 Mechanical grinding of FeNC nanomaterial with Fe₃O₄ to construct magnetic adsorbents for desulfurization. **2022**, 122574 0
- 98 Bottom-up Hydrothermal Carbonization for the Precise Engineering of Carbon Materials. **2022**, 101048 1
- 97 Recent Progress in Synthesis and Application of Biomass-Based Hybrid Electrodes for Rechargeable Batteries. 2208349 0
- 96 A route towards graphene from lignocellulosic biomass: Technicality, challenges, and their prospective applications. **2022**, 380, 135090 0
- 95 Value-added functional carbon for potential electrodes and its validation. **2022**, 56, 106116 0
- 94 Porous Carbon Derived From Biomass for Fuel Cells. **2022**, 229-252 0
- 93 Recent Advances of Biomass-Derived Porous Carbon Materials in Catalytic Conversion of Organic Compounds. **2022**, 293-315 0
- 92 Synthesis of hierarchical porous carbon using cellulose nanocrystals as templates for supercapacitor application. **2023**, 191, 115952 0
- 91 Preparation of high-performance supercapacitors from waste polyurethane-based hierarchical porous carbon. **2022**, 46, 23328-23337 0
- 90 Reaction-induced macropore formation enabling commodity polymer derived carbons for CO₂ capture. 0
- 89 Selenium Heteroatom-doped Mesoporous Carbon as Efficient Air-breathing Electrode for Rechargeable Lithium-Oxygen Battery. 0

- 88 Refilling nitrogen into carbon sponge for enhanced performance of compressible supercapacitor. **2023**, 131, 109586 ○
- 87 Ultra-fast electro-reduction and activation of graphene for high energy density wearable supercapacitor asymmetrically designed with MXene. **2023**, 203, 191-201 ○
- 86 Activating nitrogen-doped carbon nanosheets by KOH treatment to promote the Fischer-Tropsch synthesis performance. **2023**, 455, 140810 ○
- 85 From wood to supercapacitor electrode material via fast pyrolysis. **2023**, 57, 106179 ○
- 84 Biomass-based activated carbon by flash heating as a novel preparation route and its application in high efficiency adsorption of metronidazole. **2023**, 131, 109603 1
- 83 The novel SiO₂-decorated highly robust waste-derived activated carbon with homogeneous fluidity for the CO₂ capture process. **2023**, 306, 122625 2
- 82 Nitrogen and sulfur co-doped microporous carbon prepared by a couple of activating and functionalized reagents for efficient CO₂ capture and selective CO₂/CH₄ separation. **2023**, 658, 130732 1
- 81 Research and development progress of porous foam-based electrodes in advanced electrochemical energy storage devices: A critical review. **2023**, 173, 113111 ○
- 80 Investigation on carbon derived from casuarina bark using microwave activation for high performance supercapacitors. **2023**, 337, 127078 ○
- 79 The development of activated carbon from corncob for CO₂ capture. **2022**, 12, 33069-33078 ○
- 78 Controllable Synthesis of Hierarchical Porous Carbon with Ultra-high Specific Surface Area from Milkvetch Root Residue for Supercapacitor Application. **2022**, ○
- 77 Recent progress of transition metal-based biomass-derived carbon composites for supercapacitor. ○
- 76 Review of Carbon Capture and Methane Production from Carbon Dioxide. **2022**, 13, 1958 ○
- 75 Efficient Removal of Phosphate from Wastewater by a Novel Phyto-Graphene Composite Derived from Palm Byproducts. **2022**, 7, 45386-45402 ○
- 74 Nitrogen-enriched activated carbons via dual N-doping processes: Electrode material for high gravimetric- and volumetric-performance supercapacitor. **2022**, 56, 106040 ○
- 73 Development of Low-Cost Porous Carbons through Alkali Activation of Crop Waste for CO₂ Capture. **2022**, 7, 46992-47001 ○
- 72 Biomass Hierarchical Porous Carbonized Typha angustifolia Prepared by Green Pore-Making Technology for Energy Storage. ○
- 71 Critical Evaluation of Hybrid and Organic Electrolytes for Supercapacitors with Optimized Porous Carbon. **2022**, 141778 ○

- 70 Nitrogen and Oxygen Dual-doped Porous Carbon from Nature Macromolecular Chitosan for Fast and Stable Zinc-ion Hybrid Supercapacitors. ○
- 69 Study of the Functionalities of a Biochar Electrode Combined with a Photoelectrochemical Cell. **2023**, 16, 43 ○
- 68 Salt-activated phenolic resin/PAN-derived core-sheath nanostructured carbon nanofiber composites for capacitive energy storage. ○
- 67 KOH-Enabled Axial-Oxygen Coordinated Ni Single-Atom Catalyst for Efficient Electrocatalytic CO₂ Reduction. 2201311 ○
- 66 Nitrogen-doped porous carbon derived from graphite of solid waste for activating peroxymonosulfate to degradation tetracycline. **2023**, 130984 ○
- 65 Biomass Nanoarchitectonics for Supercapacitor Applications. **2023**, 72, 11-32 ○
- 64 Bio-based resins with tannin and hydroxymethylfurfural derived high-yield carbon for Zn-ion hybrid supercapacitors. **2023**, 136067 ○
- 63 A 3D multifunctional host anode from commercial carbon cloth for lithium metal batteries. ○
- 62 A trifunctional N-doped activated carbon@ceria shell, derived from covalent porphyrin polymers for promoting Pt activity in fuel cell cathode performance. ○
- 61 Metal-free spent disposable papercup-derived porous carbon as air-breathing electrode for rechargeable lithium-air battery. ○
- 60 Flexible Solid-State Aqueous Sodium-Ion Capacitor Using Mesoporous Self-Heteroatom-Doped Carbon Electrodes. ○
- 59 Rechargeable lithium-ion dual carbon batteries utilising a quasi-solid-state anion co-intercalation electrolyte and palm kernel shell-derived hard carbon. **2023**, 132, 109680 ○
- 58 Carboxymethyl chitosan-derived carbon foam with hierarchical pores tuned by potassium tetraborate and potassium carbonate for supercapacitors. **2023**, 60, 106671 ○
- 57 Yerba mate: From waste to activated carbon for supercapacitors. **2023**, 330, 117158 ○
- 56 Electrochemical charge storage performance of in-situ etched carbonized ZIF-8 aerogels. **2023**, 336, 133847 ○
- 55 H₃PO₄/KOH Activation Agent for High Performance Rice Husk Activated Carbon Electrode in Acidic Media Supercapacitors. **2023**, 28, 296 1
- 54 Multistage Activation of Anthracite Coal-Based Activated Carbon for High-Performance Supercapacitor Applications. **2023**, 37, 1327-1343 ○
- 53 Advances in nanocomposite material for Fused Filament Fabrication. **2022**, 61, 1617-1661 ○

- 52 Carbon Materials for Organophosphate Pesticide Sensing. **2023**, 11, 93 ○
- 51 Porous carbon derived from Terminalia catappa leaves for energy storage application. ○
- 50 Self-Heteroatom-Doped Garlic-Derived Porous Activated Carbon for a High-Energy-Density Supercapacitor. **2023**, 52, 1717-1729 ○
- 49 A High Yield and Cost-Effective Pathway for the Production of Iron Doped Porous Carbon Derived from Squid Pen as Supercapacitor Electrode Material. ○
- 48 A bottom-up fabrication for Sulphur (S), Nitrogen (N) co-Doped two-dimensional Microporous Carbon Nano-sheets for high-performance Supercapacitor and H₂, CO₂ storage. ○
- 47 Preparation of activated carbon monolith from waste biomass using solvated polystyrene-based binder. 1-13 ○
- 46 On the use of plastic precursors for preparation of activated carbons and their evaluation in CO₂ capture for biogas upgrading: a review. **2023**, 161, 116-141 ○
- 45 Structural Energy Storage System Using Electrospun Carbon Nanofibers with Carbon Nanotubes. ○
- 44 The capacitance characteristics of polybenzidine-based donor-acceptor conductive conjugated polymer electrodes enhanced by structural modification and carbon cloth loading. **2023**, 190, 111994 ○
- 43 Zinc-iodine battery-capacitor hybrid device with excellent electrochemical performance enabled by a robust iodine host. **2023**, 62, 106857 ○
- 42 Role of biochar-based catalysts in microwave-induced biomass pyrolysis: Structural properties and modification with Fe-series metals. **2023**, 341, 127769 ○
- 41 A systematic study on Equisetum ramosissimum Desf. derived honeycomb porous carbon for supercapacitors: Insight into the preparation-structure-performance relationship. **2023**, 623, 157010 ○
- 40 Hierarchical porous carbon nanoarchitectonics with honeycomb-like and N, P co-doped features for flexible symmetric supercapacitors and high-efficiency dye removal. **2023**, 65, 107272 ○
- 39 Molten salt assisted self-activated carbon with controllable architecture for aqueous supercapacitor. **2023**, 156, 107-117 ○
- 38 Urea-doped hierarchical porous carbons derived from sucrose precursor for highly efficient CO₂ adsorption and separation. **2023**, 37, 102668 ○
- 37 Porous and graphitic structure optimization of biomass-based carbon materials from 0D to 3D for supercapacitors: A review. **2023**, 460, 141607 ○
- 36 State and future implementation perspectives of porous carbon-based hybridized matrices for lithium sulfur battery. **2023**, 481, 215055 ○
- 35 Synthesis of biochar/clay mineral nanocomposites using oil shale semi-coke waste for removal of organic pollutants. **2023**, 5, ○

- 34 Preparation of hierarchical porous carbon through one-step KOH activation of coconut shell biomass for high-performance supercapacitor. **2023**, 34, ○
- 33 Hierarchically Porous and Nitrogen-Rich Carbon Materials Derived from Polyimide Waste for High-Performance Supercapacitor Applications. **2023**, 37, 4038-4047 ○
- 32 Pores on Pores: A novel approach to fabricate super adsorbents from used face masks for large CO₂ capture and dye removal. **2023**, 206, 422-433 ○
- 31 Preparation and characterization study of Fe₂O₃/carbon composite nanofibers: electrospinning of composite fibers using PVP and iron nitrate as precursors. **2023**, 25, 8684-8691 ○
- 30 Fabrication of hierarchical porous biomass-based carbon aerogels from liquefied wood for supercapacitor applications. ○
- 29 Review of Advances in the Utilization of Biochar-Derived Catalysts for Biodiesel Production. **2023**, 8, 8190-8200 ○
- 28 One-dimensional nanostructured electrode materials based on electrospinning technology for supercapacitors. **2023**, 134, 109803 ○
- 27 Application of biochar and carbon-based adsorbent for CO₂ capture. **2023**, 239-269 ○
- 26 Adopting abundant seawater as green chemical activators for preparing high surface area biochar. **2023**, 21, 101386 ○
- 25 Lignin-Derived Carbonaceous Materials for Supercapacitor Applications. **2023**, 65-115 ○
- 24 Design of experiments as a tool to guide the preparation of tailor-made activated carbons. **2023**, 13, ○
- 23 Rice husk pyrolysis polygeneration of levoglucosan-rich bio-oil and functional bio-char: roles of hydrothermal pretreatment and acidic hydrothermal pretreatment on products. ○
- 22 Recent advances in the application of carbon-based electrode materials for high-performance zinc ion capacitors: a mini review. **2023**, 6, ○
- 21 Facile Synthesis of Two-Dimensional (2D) Boron Carbonitride and 2D Porous Boron Carbonitride for Excellent Energy Storage and Gas Adsorption Applications. **2023**, 37, 5540-5555 ○
- 20 A systematic review on machining of nanocomposite: Present scenario and Future Prospects. ○
- 19 Research progress on the preparation process of biochar-based catalyst support for dry reforming of methane. **2023**, 51, 273-293 ○
- 18 Lignin-derived carbon material for electrochemical energy storage applications: Insight into the process-structure-properties-performance correlations. 11, ○
- 17 Adsorption of methylene blue on activated carbons prepared from penicillin mycelial residues via torrefaction and hydrothermal pretreatment. ○

- 16 Heteroatom-Enhanced Porous Carbon Materials Based on Polybenzoxazine for Supercapacitor Electrodes and CO₂ Capture. **2023**, 15, 1564
- 15 Prospects of low-temperature solid sorbents in industrial CO₂ capture: A focus on biomass residues as precursor material. **2023**, 13, 245-284
- 14 A review on the recent progress of the plant-based porous carbon materials as electrodes for high-performance supercapacitors. **2023**, 58, 6516-6555
- 13 Nanotechnology based delivery of nutraceuticals. **2023**, 1-34
- 12 Production of biomass derived highly porous activated carbon: A solution towards in-situ burning of crop residues in India. **2023**, 22, 101425
- 11 Production of activated carbon from the waste paper by chemical activation method.
- 10 3D GRAPHENE SPONGE BIOMASS-DERIVED WITH HIGH SURFACE AREA APPLIED AS ADSORBENT FOR NITROPHENOLS. **2023**, 109924
- 9 Alkaline Carbonization of Polyacrylonitrile for the Preparation of Microporous Carbon Materials. **2023**, 97, 177-185
- 8 Grave-to-cradle upcycling of harmful algal biomass into atomically dispersed iron catalyst for efficient ammonia electrosynthesis from nitrate. **2023**, 332, 122778
- 7 Orange peel derived activated carbon for supercapacitor electrode material. **2023**, 34,
- 6 One-step synthesis of nitrogen and sulfur co-doped hierarchical porous carbon derived from acesulfame potassium as a dual-function agent for supercapacitors and lithium-sulfur batteries. **2023**, 66, 107214
- 5 Biomass-derived carbon for supercapacitors electrodes A review of recent advances. **2023**, 153, 110768
- 4 Preparation and hydrogen storage performance of poplar sawdust biochar with high specific surface area. **2023**, 200, 116788
- 3 Rational design of dense microporous carbon derived from coal tar pitch towards high mass loading supercapacitors. **2023**, 646, 228-237
- 2 Physical and morphological alteration of Sargassum-derived ultraporous superactivated hydrochar with remarkable cationic dye adsorption.
- 1 Synthesis of activated carbon monolith from lignocellulosic material: Evaluation of product quality.