Ricardo Santamaria

List of Publications by Year
in descending order

139 papers	6,359 citations	76326 40 h-index	76900 74 g-index
139 all docs	139 docs citations	139 times ranked	7096 citing authors

#	Article	IF	Citations
1	Towards a Further Generation of Highâ€Energy Carbonâ€Based Capacitors by Using Redoxâ€Active Electrolytes. Angewandte Chemie - International Edition, 2011, 50, 1699-1701.	13.8	389
2	Graphene materials with different structures prepared from the same graphite by the Hummers and Brodie methods. Carbon, 2013, 65, 156-164.	10.3	345
3	Mechanisms of Energy Storage in Carbon-Based Supercapacitors Modified with a Quinoid Redox-Active Electrolyte. Journal of Physical Chemistry C, 2011, 115, 17606-17611.	3.1	263
4	Critical temperatures in the synthesis of graphene-like materials by thermal exfoliationâ€“reduction of graphite oxide. Carbon, 2013, 52, 476-485.	10.3	236
5	Surface Area Measurement of Graphene Oxide in Aqueous Solutions. Langmuir, 2013, 29, 13443-13448.	3.5	195
6	The effect of the parent graphite on the structure of graphene oxide. Carbon, 2012, 50, 275-282.	10.3	188
7	An approach to classification and capacitance expressions in electrochemical capacitors technology. Physical Chemistry Chemical Physics, 2015, 17, 1084-1092.	2.8	181
8	Effects of thermal treatment of activated carbon on the electrochemical behaviour in supercapacitors. Electrochimica Acta, 2007, 52, 4969-4973.	5.2	172
9	Enhanced performance of a Bi-modified graphite felt as the positive electrode of a vanadium redox flow battery. Electrochemistry Communications, 2011, 13, 1379-1382.	4.7	164
10	Redox-active electrolyte for carbon nanotube-based electric double layer capacitors. Electrochimica Acta, 2011, 56, 3401-3405.	5.2	159
11	An activated carbon monolith as an electrode material for supercapacitors. Carbon, 2009, 47, 195-200.	10.3	158
12	Supercapacitor modified with methylene blue as redox active electrolyte. Electrochimica Acta, 2012, 83, 241-246.	5.2	148
13	Correct use of the Langmuirâ€“Hinshelwood equation for proving the absence of a synergy effect in the photocatalytic degradation of phenol on a suspended mixture of titania and activated carbon. Carbon, 2013, 55, 62-69.	10.3	146
14	Thermally reduced graphite oxide as positive electrode in Vanadium Redox Flow Batteries. Carbon, 2012, 50, 828-834.	10.3	129
15	Graphite Felt Modified with Bismuth Nanoparticles as Negative Electrode in a Vanadium Redox Flow Battery. ChemSusChem, 2014, 7, 914-918.	6.8	113
16	Outstanding electrochemical performance of a graphene-modified graphite felt for vanadium redox flow battery application. Journal of Power Sources, 2017, 338, 155-162.	7.8	105
17	Long-term cycling of carbon-based supercapacitors in aqueous media. Electrochimica Acta, 2009, 54, 4481-4486.	5.2	95
18	Capacitive Deionization of NaCl Solutions with Modified Activated Carbon Electrodes. Energy & Fuels, 2010, 24, 3329-3333.	5.1	93

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19	Activated carbon produced from Sasol-Lurgi gasifier pitch and its application as electrodes in supercapacitors. Carbon, 2006, 44, 441-446.	10.3	91
20	A thermoanalytical study of the co-pyrolysis of coal-tar pitch and petroleum pitch. Fuel, 2004, 83, 1257-1265.	6.4	80
21	Carbon nanowalls thin films as nanostructured electrode materials in vanadium redox flow batteries. Nano Energy, 2012, 1, 833-839.	16.0	79
22	Optimization of the size and yield of graphene oxide sheets in the exfoliation step. Carbon, 2013, 63, 576-578.	10.3	77
23	A comparative study of air-blown and thermally treated coal-tar pitches. Carbon, 2000, 38, 517-523.	10.3	73
24	A study of pitch-based precursors for general purpose carbon fibres. Carbon, 2002, 40, 2719-2725.	10.3	70
25	CO2 adsorption capacity and kinetics in nitrogen-enriched activated carbon fibers prepared by different methods. Chemical Engineering Journal, 2015, 281, 704-712.	12.7	63
26	A highly adhesive PIL/IL gel polymer electrolyte for use in flexible solid state supercapacitors. Electrochimica Acta, 2019, 299, 789-799.	5.2	63
27	Mesophase development in petroleum and coal-tar pitches and their blends. Journal of Analytical and Applied Pyrolysis, 2003, 68-69, 409-424.	5.5	60
28	High performance activated carbon for benzene/toluene adsorption from industrial wastewater. Journal of Hazardous Materials, 2011, 192, 1525-1532.	12.4	58
29	On the chemistry of the oxidative stabilization and carbonization of carbonaceous mesophase. Fuel, 2002, 81, 2061-2070.	6.4	57
30	Electrochemical, textural and microstructural effects of mechanical grinding on graphitized petroleum coke for lithium and sodium batteries. Carbon, 2003, 41, 3003-3013.	10.3	57
31	Comparison between Electrochemical Capacitors Based on NaOH- and KOH-Activated Carbons. Energy & Fuels, 2010, 24, 3422-3428.	5.1	57
32	Graphite oxide-based graphene materials as positive electrodes in vanadium redox flow batteries. Journal of Power Sources, 2013, 241, 349-354.	7.8	57
33	High value activated carbons from waste polystyrene foams. Microporous and Mesoporous Materials, 2018, 267, 181-184.	4.4	57
34	Enhanced life-cycle supercapacitors by thermal treatment of mesophase-derived activated carbons. Electrochimica Acta, 2008, 54, 305-310.	5.2	54
35	Pyrolysis of petroleum residues: I. Yields and product analyses. Carbon, 1999, 37, 1567-1582.	10.3	46
36	Chemical activation of carbon mesophase pitches. Journal of Colloid and Interface Science, 2006, 298, 341-347.	9.4	46

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37	Optimisation of the melt-spinning of anthracene oil-based pitch for isotropic carbon fibre preparation. Fuel Processing Technology, 2012, 93, 99-104.	7.2	45
38	Influence of electrode preparation on the electrochemical behaviour of carbon-based supercapacitors. Journal of Applied Electrochemistry, 2007, 37, 717-721.	2.9	43
39	Graphene anchored palladium complex as efficient and recyclable catalyst in the Heck cross-coupling reaction. Journal of Molecular Catalysis A, 2016, 416, 140-146.	4.8	43
40	A novel method to obtain a petroleum-derived mesophase pitch suitable as carbon fibre precursor. Carbon, 2003, 41, 445-452.	10.3	42
41	C4F8 plasma treatment as an effective route for improving rate performance of natural/synthetic graphite anodes in lithium ion batteries. Carbon, 2016, 103, 28-35.	10.3	40
42	A novel approach for the production of chemically activated carbon fibers. Chemical Engineering Journal, 2015, 260, 463-468.	12.7	39
43	Influence of the carbonization temperature on the mechanical properties of thermoplastic polymer derived C/C-SiC composites. Journal of the European Ceramic Society, 2017, 37, 523-529.	5.7	39
44	Enhanced energy density of carbon-based supercapacitors using Cerium (III) sulphate as inorganic redox electrolyte. Electrochimica Acta, 2015, 168, 277-284.	5.2	38
45	Thermally reduced graphite and graphene oxides in VRFBs. Nano Energy, 2013, 2, 1322-1328.	16.0	37
46	New alternatives to graphite for producing graphene materials. Carbon, 2015, 93, 812-818.	10.3	37
47	Carbon materials as electrodes for electrosorption of NaCl inÂaqueous solutions. Adsorption, 2011, 17, 467-471.	3.0	34
48	Voltage dependence of carbon-based supercapacitors for pseudocapacitance quantification. Electrochimica Acta, 2013, 95, 225-229.	5.2	34
49	An insight into the polymerization of anthracene oil to produce pitch using nuclear magnetic resonance. Fuel, 2013, 105, 471-476.	6.4	34
50	Insights on the Behavior of Imidazolium Ionic Liquids as Electrolytes in Carbon-Based Supercapacitors: An Applied Electrochemical Approach. Journal of Physical Chemistry C, 2020, 124, 15818-15830.	3.1	34
51	Pyrolysis behaviour of petroleum pitches prepared at different conditions. Journal of Analytical and Applied Pyrolysis, 2002, 63, 223-239.	5.5	33
52	Cokes of different origin as precursors of graphene oxide. Fuel, 2016, 166, 400-403.	6.4	33
53	Unusual flexibility of mesophase pitch-derived carbon materials: An approach to the synthesis of graphene. Carbon, 2017, 115, 539-545.	10.3	31
54	Preparation of Low Toxicity Pitches by Thermal Oxidative Condensation of Anthracene Oil. Environmental Science & Technology, 2009, 43, 8126-8132.	10.0	30

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55	Characterisation and feasibility as carbon fibre precursors of isotropic pitches derived from anthracene oil. Fuel, 2012, 101, 9-15.	6.4	30
56	LiFePO₄/Mesoporous Carbon Hybrid Supercapacitor Based on LiTFSI/Imidazolium Ionic Liquid Electrolyte. Journal of Physical Chemistry C, 2018, 122, 1456-1465.	3.1	30
57	Preparation of pitch-based carbonâ€“copper composites for electrical applications. Fuel, 2004, 83, 1625-1634.	6.4	29
58	Tinâ€“carbon composites as anodic material in Li-ion batteries obtained by copyrolysis of petroleum vacuum residue and SnO2. Carbon, 2007, 45, 1396-1409.	10.3	29
59	Enhancing energy density of carbon-based supercapacitors using Prussian Blue modified positive electrodes. Electrochimica Acta, 2016, 212, 848-855.	5.2	29
60	Pyrolysis behaviour of stabilized self-sintering mesophase. Carbon, 2003, 41, 413-422.	10.3	28
61	Carbon molecular sieves as model active electrode materials in supercapacitors. Microporous and Mesoporous Materials, 2008, 110, 431-435.	4.4	28
62	Waste-polystyrene foams-derived magnetic carbon material for adsorption and redox supercapacitor applications. Journal of Cleaner Production, 2021, 313, 127903.	9.3	28
63	Pitch-based carbon composites with granular reinforcements for frictional applications. Carbon, 2000, 38, 1043-1051.	10.3	27
64	Thermal degradation of lignocellulosic materials treated with several acids. Journal of Analytical and Applied Pyrolysis, 2005, 74, 337-343.	5.5	27
65	Activated carbon fibers prepared directly from stabilized fibers for use as electrodes in supercapacitors. Materials Letters, 2014, 136, 214-217.	2.6	27
66	Influence of pressure variations on the formation and development of mesophase in a petroleum residue. Carbon, 1999, 37, 445-455.	10.3	26
67	Discussion on Operational Voltage and Efficiencies of Ionic-Liquid-Based Electrochemical Capacitors. Journal of Physical Chemistry C, 2019, 123, 8541-8549.	3.1	25
68	Effects of Air-Blowing on the Molecular Size and Structure of Coal-Tar Pitch Components. Energy & Fuels, 2002, 16, 1540-1549.	5.1	24
69	A novel method for mesophase separation. Carbon, 1997, 35, 1191-1193.	10.3	23
70	Separation and characterization of the isotropic phase and co-existing mesophase in thermally treated coal-tar pitches. Carbon, 2000, 38, 1169-1176.	10.3	23
71	The effect of the substrate on pitch wetting behaviour. Fuel Processing Technology, 2010, 91, 1373-1377.	7.2	23
72	N-enriched ACF from coal-based pitch blended with urea-based resin for CO2 capture. Microporous and Mesoporous Materials, 2015, 201, 10-16.	4.4	23

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73	Improvement of the thermal stability of lignocellulosic materials by treatment with sulphuric acid and potassium hydroxide. Journal of Analytical and Applied Pyrolysis, 2004, 72, 131-139.	5.5	22
74	Influence of oxidative stabilization on the electrochemical behaviour of coal tar pitch derived carbons in lithium batteries. Electrochimica Acta, 2005, 50, 1225-1232.	5.2	22
75	Influence of mesophase activation conditions on the specific capacitance of the resulting carbons. Journal of Power Sources, 2006, 156, 719-724.	7.8	22
76	Mesophase from Anthracene Oil-Based Pitches. Energy & Fuels, 2008, 22, 4146-4150.	5.1	22
77	On the Chemical Composition of Thermally Treated Coal-Tar Pitches. Energy & Fuels, 2001, 15, 214-223.	5.1	21
78	Assessment of the oxidative stabilisation of carbonaceous mesophase by thermal analysis techniques. Journal of Analytical and Applied Pyrolysis, 2001, 58-59, 911-926.	5.5	21
79	Pyrolysis behaviour of mesophase and isotropic phases isolated from the same pitch. Journal of Analytical and Applied Pyrolysis, 2002, 63, 251-265.	5.5	21
80	Effect of the thermal treatment of carbon-based electrodes on the electrochemical performance of supercapacitors. Journal of Electroanalytical Chemistry, 2008, 618, 17-23.	3.8	21
81	Tuning graphene properties by a multi-step thermal reduction process. Carbon, 2015, 90, 160-163.	10.3	21
82	Ironâ€“carbon composites as electrode materials in lithium batteries. Carbon, 2006, 44, 1762-1772.	10.3	20
83	Role of quinoline insoluble particles during the processing of coal tars to produce graphene materials. Fuel, 2017, 206, 99-106.	6.4	20
84	Monitoring coal-tar pitch composition changes during air-blowing by gas chromatography. Journal of Chromatography A, 2004, 1026, 231-238.	3.7	19
85	Influence of granular carbons on pitch propertiesâ˜†. Fuel, 2003, 82, 1241-1250.	6.4	18
86	An insight into pitch/substrate wetting behaviour. The effect of the substrate processing temperature on pitch wetting capacity. Fuel, 2007, 86, 1046-1052.	6.4	18
87	Improvement of thermal conductivity in 2D carbonâ€“carbon composites by doping with TiC nanoparticles. Materials Chemistry and Physics, 2010, 122, 102-107.	4.0	18
88	Dielectric behavior of ceramicâ€“graphene composites around the percolation threshold. Nanoscale Research Letters, 2015, 10, 216.	5.7	18
89	Spark plasma sintered BaTiO 3 /graphene composites for thermoelectric applications. Journal of the European Ceramic Society, 2017, 37, 3741-3746.	5.7	18
90	Mechanism and Stability of a Redox Supercapacitor Based on Methylene Blue: Effects of Degradation of the Redox Shuttle. ACS Applied Energy Materials, 2018, 1, 2306-2316.	5.1	18

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91	Pyrolysis behaviour of pitches modified with different additives. Journal of Analytical and Applied Pyrolysis, 2005, 73, 276-283.	5.5	17
92	Contribution of the isotropic phase to the rheology of partially anisotropic coal-tar pitches. Carbon, 1999, 37, 1059-1064.	10.3	16
93	The influence of processing temperature on the structure and properties of mesophase-based polygranular graphites. Journal of Materials Science, 2004, 39, 1213-1220.	3.7	16
94	Peculiarities of the production of graphene oxides with controlled properties from industrial coal liquids. Fuel, 2017, 203, 253-260.	6.4	16
95	Biliquid Supercapacitors: a Simple and New Strategy to Enhance Energy Density in Asymmetric/Hybrid Devices. Electrochimica Acta, 2017, 254, 384-392.	5.2	16
96	Preventing mesophase growth in petroleum pitches by the addition of coal-tar pitch. Carbon, 2003, 41, 1854-1857.	10.3	15
97	Relationship between chemical composition and pyrolysis behaviour of a medium temperature pitch (or Lurgi-gasifier pitch). Fuel Processing Technology, 2003, 84, 63-77.	7.2	15
98	Capacitance Evolution of Electrochemical Capacitors with Tailored Nanoporous Electrodes in Pure and Dissolved Ionic Liquids. Fuel Cells, 2010, 10, 834-839.	2.4	15
99	Influence of the electrophoretic deposition parameters on the formation of suspended graphene-based films. Materials and Design, 2018, 160, 58-64.	7.0	15
100	Lignocellulose/pitch based composites. Composites Part A: Applied Science and Manufacturing, 2005, 36, 649-657.	7.6	14
101	A unified process for preparing mesophase and isotropic material from anthracene oil-based pitch. Fuel Processing Technology, 2011, 92, 421-427.	7.2	14
102	A multi-step exfoliation approach to maintain the lateral size of graphene oxide sheets. Carbon, 2014, 80, 830-832.	10.3	14
103	Synthesis of activated carbons by chemical activation of new anthracene oil-based pitches and their optimization by response surface methodology. Fuel Processing Technology, 2011, 92, 1987-1992.	7.2	13
104	Influence of granular carbons on the pyrolysis behaviour of coal-tar pitches. Journal of Analytical and Applied Pyrolysis, 2001, 58-59, 825-840.	5.5	12
105	Co-pyrolysis of an aromatic petroleum residue with triphenylsilane. Carbon, 2001, 39, 1001-1011.	10.3	12
106	Composite electrode materials for lithium-ion batteries obtained by metal oxide addition to petroleum vacuum residua. Carbon, 2005, 43, 923-936.	10.3	12
107	Further studies on the use of Raman spectroscopy and X-ray diffraction for the characterisation of TiC-containing carbonâ€“carbon composites. Carbon, 2012, 50, 3240-3246.	10.3	12
108	Microstructure and properties of pitch-based carbon composites. Journal of Microscopy, 1999, 196, 213-224.	1.8	11

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109	Evaluating capacitive deionization for water desalination by direct determination of chloride ions. Desalination, 2014, 344, 396-401.	8.2	11
110	Novel coal-based precursors for cokes with highly oriented microstructures. Fuel, 2012, 95, 400-406.	6.4	10
111	Unraveling the relevance of carbon felts surface modification during electrophoretic deposition of nanocarbons on their performance as electrodes for the VO2+/VO2+ redox couple. Applied Surface Science, 2021, 569, 151095.	6.1	10
112	Pitch/coke wetting behaviour. Fuel, 2005, , .	6.4	9
113	Oxidation behaviour of magnesiaâ€“carbon materials prepared with petroleum pitch as binder. Journal of Analytical and Applied Pyrolysis, 2010, 88, 207-212.	5.5	9
114	Morphological changes in graphene materials caused by solvents. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 558, 73-79.	4.7	9
115	Optimization of the preparation conditions of polygranular carbons from mesophase. Journal of Materials Science, 2003, 38, 427-435.	3.7	8
116	Influence of the oxidative stabilisation treatment time on the electrochemical performance of anthracene oils cokes as electrode materials for lithium batteries. Journal of Power Sources, 2006, 161, 1324-1334.	7.8	8
117	Structural Characterization of High-Softening-Point Pitches By Oxidation with RuO4. Energy & Fuels, 2001, 15, 128-134.	5.1	7
118	The effect of the reinforcing carbon on the microstructure of pitch-based granular composites. Journal of Microscopy, 2003, 209, 81-93.	1.8	7
119	Electrochemical improvement of low-temperature petroleum cokes by chemical oxidation with H2O2 for their use as anodes in lithium ion batteries. Electrochimica Acta, 2006, 52, 1281-1289.	5.2	7
120	Development of titanium-doped carbonâ€“carbon composites. Journal of Materials Science, 2009, 44, 2525-2532.	3.7	7
121	Thermal curing of mesophase pitch: An alternative to oxidative stabilisation for the development of carbonâ€“carbon composites. Journal of Analytical and Applied Pyrolysis, 2009, 86, 28-32.	5.5	7
122	Optimization of a carbon-based hybrid energy storage device with cerium (III) sulfate as redox electrolyte. Journal of Power Sources, 2016, 309, 50-55.	7.8	6
123	No genome-wide DNA methylation changes found associated with medium-term reduced graphene oxide exposure in human lung epithelial cells. Epigenetics, 2020, 15, 283-293.	2.7	6
124	Preparation and characterisation of pitch-based granular composites to be used in tribological applications. Wear, 2005, 258, 1706-1716.	3.1	5
125	Effect of oxidative stabilization on the electrochemical performance of carbon mesophases as electrode materials for lithium batteries. Journal of Solid State Electrochemistry, 2005, 9, 627-633.	2.5	5
126	A study of Faradaic phenomena in activated carbon by means of macroelectrodes and single particle electrodes. Journal of Electroanalytical Chemistry, 2008, 618, 33-38.	3.8	5

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127	The effect of graphite addition on the mechanical and tribological properties of pitch-based granular carbon composites. Journal of Materials Science, 2008, 43, 4541-4549.	3.7	5
128	119Sn MÃ¶ssbauer spectroscopy analysis of Snâ€“Coâ€“C composites prepared from a Fuel Oil Pyrolysis precursor as anodes for Li-ion batteries. Materials Chemistry and Physics, 2013, 138, 747-754.	4.0	5
129	An insight into Faradaic phenomena in activated carbon investigated by means of the microelectrode technique. Electrochemistry Communications, 2007, 9, 2320-2324.	4.7	4
130	Structural changes during pitch-based carbon granular composites carbonisation. Journal of Materials Science, 2008, 43, 906-921.	3.7	4
131	Behaviour of Ti-doped CFCs under thermal fatigue tests. Fusion Engineering and Design, 2011, 86, 121-125.	1.9	4
132	Influence of Granular Carbons on the Thermal Reactivity of Pitches. Energy & Fuels, 2004, 18, 22-29.	5.1	3
133	Behaviour of Ti-doped 3D carbon fibre composites under intense thermal shock tests. Physica Scripta, 2009, T138, 014055.	2.5	3
134	Experimental and Statistical Optimization of the Tensile Strength of Carbon Fibers from Pitches with Different Composition. Industrial & Engineering Chemistry Research, 2017, 56, 3243-3250.	3.7	3
135	A new parameter relating the properties of semicokes and the resulting sintered carbons. Carbon, 1995, 33, 1182-1184.	10.3	2
136	Effect of oxidation on the performance of low-temperature petroleum cokes as anodes in lithium ion batteries. Journal of Applied Electrochemistry, 2009, 39, 899-906.	2.9	2
137	Influence of titanium carbide on the interlaminar shear strength of carbon fibre laminate composites. Composites Science and Technology, 2011, 71, 101-106.	7.8	2
138	Enhancement of the rate performance of plasma-treated platelet carbon nanofiber anodes in lithium-ion batteries. RSC Advances, 2016, 6, 4810-4817.	3.6	2
139	Evaluation of novel Ti-doped 3D carbonâ€“carbon composites under transient thermal loads. Fusion Engineering and Design, 2010, 85, 813-818.	1.9	0