Katia Guerin

List of Publications by Year
in descending order

122 papers	3,098 citations	126708 33 h-index	189595 50 g-index
124 all docs	124 docs citations	124 times ranked	2608 citing authors

#	Article	IF	Citations
1	Copper-iron ternary metal fluorides from multi-metallic template fluorination and their first use as cathode in solid state Li-batteries. Journal of Solid State Chemistry, 2022, 310, 123031.	1.4	4
2	Fluorinated (Nano)Carbons: CF_x Electrodes and CF_xâ€Based Batteries. Energy Technology, 2021, 9, 2000605.	1.8	31
3	Relationship between tin environment of SnO2 nanoparticles and their electrochemical behaviour in a lithium ion battery. Materials Chemistry and Physics, 2021, 257, 123461.	2.0	8
4	Micro-texturing by femtosecond laser ablation of a carbonaceous anode for production of fluorine by electrolysis. Journal of Fluorine Chemistry, 2021, 244, 109746.	0.9	1
5	Multi-Metallic Template Fluorination Mmtf for the Preparation of Ternary Metal Fluoride and Their First Use As Cathodes in Solid State Lithium Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 2070-2070.	0.0	0
6	Optimized Electrode/Electrolyte Interface of MWCNT/SnO₂ Composite through Gasâ€“Solid Fluorination. ACS Applied Materials & Interfaces, 2021, 13, 28150-28163.	4.0	2
7	Carbon in lithium-ion and post-lithium-ion batteries: Recent features. Synthetic Metals, 2021, 280, 116864.	2.1	15
8	Advances in tailoring the water content in porous carbon aerogels using RT-pulsed fluorination. Journal of Fluorine Chemistry, 2020, 238, 109633.	0.9	6
9	Atomic Layer Fluorination of 5â€…V Class Positive Electrode Material LiCoPO 4 for Enhanced Electrochemical Performance. Batteries and Supercaps, 2020, 3, 1051-1058.	2.4	1
10	Surface atomic layer fluorination of Li4Ti5O12: Investigation of the surface electrode reactivity and the outgassing behavior in LiBs. Applied Surface Science, 2020, 527, 146834.	3.1	7
11	Unravelling lithiation mechanisms of iron trifluoride by operando X-ray absorption spectroscopy and MCR-ALS chemometric tools. New Journal of Chemistry, 2020, 44, 10153-10164.	1.4	8
12	Influence upon cycling of oxygen amount in tin-based compound used as negative electrode in lithium-ion battery. Synthetic Metals, 2020, 267, 116477.	2.1	5
13	Synthesis of NiF₂ and NiF₂Â·4H₂O Nanoparticles by Microemulsion and Their Self-Assembly. Langmuir, 2020, 36, 8461-8475.	1.6	3
14	Atomic Layer Fluorination of the Li₄Ti₅O₁₂ Surface: A Multiprobing Survey. ACS Applied Energy Materials, 2019, 2, 6681-6692.	2.5	11
15	High energy primary lithium battery using oxidized sub-fluorinated graphite fluorides. Journal of Fluorine Chemistry, 2019, 227, 109369.	0.9	16
16	Activity and Durability of Platinum-Based Electrocatalysts with Tin Oxideâ€“Coated Carbon Aerogel Materials as Catalyst Supports. Electrocatalysis, 2019, 10, 156-172.	1.5	12
17	Surface Layer Fluorination of TiO₂ Electrodes for Electrode Protection LiBs: Fading the Reactivity of the Negative Electrode/Electrolyte Interface. Journal of the Electrochemical Society, 2019, 166, A1905-A1914.	1.3	5
18	Tin-based materials: the future of anode materials for lithium ion battery?. , 2019, , .		1

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19	Synthesis of Nb2 O5 Nanoplates and their Conversion into NbO2 F Nanoparticles by Controlled Fluorination with Molecular Fluorine. European Journal of Inorganic Chemistry, 2019, 2019, 230-236.	1.0	5
20	Tuning fluorine and oxygen distribution in graphite oxifluorides for enhanced performances in primary lithium battery. Carbon, 2019, 141, 6-15.	5.4	22
21	Effect of fluorination on the stability of carbon nanofibres in organic solvents. Comptes Rendus Chimie, 2018, 21, 791-799.	0.2	3
22	Understanding of the nanosize effect on the structure and electrochemistry of V2O5 obtained via fluorine chemistry. Materials Today: Proceedings, 2018, 5, 22850-22858.	0.9	2
23	Utilization of graphitized and fluorinated carbon as platinum nanoparticles supports for application in proton exchange membrane fuel cell cathodes. Journal of Power Sources, 2018, 404, 28-38.	4.0	16
24	Tin dioxide coated carbon materials as an alternative catalyst support for PEMFCs: Impacts of the intrinsic carbon properties and the synthesis parameters on the coating characteristics. Microporous and Mesoporous Materials, 2018, 271, 1-15.	2.2	13
25	Activity and Durability of Platinum-Based Electrocatalysts Supported on Bare or Fluorinated Nanostructured Carbon Substrates. Journal of the Electrochemical Society, 2018, 165, F3346-F3358.	1.3	27
26	Rhombohedral Iron Trifluoride with a Hierarchized Macroporous/Mesoporous Texture from Gaseous Fluorination of Iron Disilicide. E3S Web of Conferences, 2017, 16, 08001.	0.2	0
27	Advanced Carbon Fluorides For Primary Lithium Batteries. E3S Web of Conferences, 2017, 16, 17002.	0.2	0
28	High Performances of Oxyfluoride Electrode Used in Lithium Ion Battery. E3S Web of Conferences, 2017, 16, 17007.	0.2	2
29	Evidence for a nanosize effect on the structural and high performance electrochemical properties of V2O5 obtained via fluorine chemistry. Electrochimica Acta, 2017, 245, 350-360.	2.6	13
30	Fluorinated exfoliated graphite as cathode materials for enhanced performances in primary lithium battery. Electrochimica Acta, 2017, 227, 18-23.	2.6	19
31	Electrochemical kinetics of Li insertion in nanosized high performance V2O5 obtained via fluorine chemistry. Electrochimica Acta, 2017, 253, 472-478.	2.6	4
32	Proton Exchange Membrane Fuel Cell With Enhanced Durability Using Fluorinated Carbon As Electrocatalyst. E3S Web of Conferences, 2017, 16, 17001.	0.2	1
33	High energy density of primary lithium batteries working with sub-fluorinated few walled carbon nanotubes cathode. Journal of Alloys and Compounds, 2017, 726, 852-859.	2.8	38
34	Fluorinated Nanocarbons for Lubrication. , 2017, , 325-360.		3
35	Nature of Câ€“F Bonds inÂFluorinated Carbons. , 2017, , 215-243.		5
36	The Influence of Sacrificial Carbonaceous Supports on the Synthesis of Anhydrous NiF2Nanoparticles. ChemistrySelect, 2016, 1, 5172-5181.	0.7	1

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37	Fluorinated 0D, 1D, and 2D Nanocarbons. , 2016, , 237-266.		0
38	Fluorination-Induced Changes in Hydrophobicity of Silicon Carbide-Derived Nanoporous Carbon. Journal of Physical Chemistry C, 2016, 120, 18595-18606.	1.5	4
39	Effect of fluorine doping on structure and CO2 adsorption in silicon carbide-derived carbon. Carbon, 2016, 96, 565-577.	5.4	37
40	Rhombohedral iron trifluoride with a hierarchized macroporous/mesoporous texture from gaseous fluorination of iron disilicide. Materials Chemistry and Physics, 2016, 173, 355-363.	2.0	8
41	New Nano-Câ€“F Compounds for Nonrechargeable Lithium Batteries. , 2015, , 261-287.		3
42	Insights on the reactivity of ordered porous carbons exposed to different fluorinating agents and conditions. Carbon, 2015, 84, 567-583.	5.4	22
43	Pushing the theoretical limit of Liâ€“CFx batteries using fluorinated nanostructured carbon nanodiscs. Carbon, 2015, 94, 1061-1070.	5.4	57
44	First Insight into Fluorinated Pt/Carbon Aerogels as More Corrosion-Resistant Electrocatalysts for Proton Exchange Membrane Fuel Cell Cathodes. Electrocatalysis, 2015, 6, 521-533.	1.5	27
45	Dual C F bonding in fluorinated exfoliated graphite. Journal of Fluorine Chemistry, 2015, 174, 36-41.	0.9	10
46	Friction Properties of Fluorinated Graphitized Carbon Blacks. Tribology Letters, 2014, 56, 259-271.	1.2	6
47	Analytical Transmission Electron Microscopy Investigation of the Fluorination Process of Carbon Nanoparticles.. Microscopy and Microanalysis, 2014, 20, 1794-1795.	0.2	0
48	Functionalized Carbon Nanotubes-Based Gas Sensors for Pollutants Detection: Investigation on the Use of a Double Transduction Mode. Key Engineering Materials, 2014, 605, 75-78.	0.4	2
49	New Indigo/Nanocarbons Hybrid Material as Chemical Filter for the Enhancement of Gas Sensor Selectivity towards Nitrogen Dioxide. Key Engineering Materials, 2014, 605, 135-138.	0.4	0
50	Structure control at the nanoscale in fluorinated graphitized carbon blacks through the fluorination route. Journal of Fluorine Chemistry, 2014, 168, 163-172.	0.9	14
51	Fluorination of anatase TiO₂ towards titanium oxyfluoride TiOF₂: a novel synthesis approach and proof of the Li-insertion mechanism. Journal of Materials Chemistry A, 2014, 2, 15308-15315.	5.2	46
52	Thermal exfoliation of fluorinated graphite. Carbon, 2014, 77, 688-704.	5.4	46
53	Improved selectivity towards NO2 of phthalocyanine-based chemosensors by means of original indigo/nanocarbons hybrid material. Talanta, 2014, 127, 100-107.	2.9	7
54	FIB, TEM and AFM Quantitative Investigation of Nanostructure and Nanoscale Friction Properties of Single Partially Fluorinated Carbon Nanofibres. Microscopy and Microanalysis, 2014, 20, 1784-1785.	0.2	0

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55	One-shot versus stepwise gasâ€“solid synthesis of iron trifluoride: investigation of pure molecular F2 fluorination of chloride precursors. CrystEngComm, 2013, 15, 3664.	1.3	29
56	Noncovalent Functionalization of Single-Wall Carbon Nanotubes for the Elaboration of Gas Sensor Dedicated to BTX Type Gases: The Case of Toluene. Journal of Physical Chemistry C, 2013, 117, 20217-20228.	1.5	36
57	Synthesis of carbonâ€“silica coreâ€“shell nanofibers from a dispersion of fluorinated carbon nanofibers in solvated polysiloxane. Carbon, 2013, 55, 23-33.	5.4	5
58	Enhanced performances in primary lithium batteries of fluorinated carbon nanofibers through static fluorination. Electrochimica Acta, 2013, 114, 142-151.	2.6	50
59	A carbonaceous chemical filter for the selective detection of NO2 in the environment. Carbon, 2013, 52, 17-29.	5.4	8
60	Indigo molecules adsorbed on carbonaceous nanomaterials as chemical filter for the selective detection of NO2 in the environment. Journal of Colloid and Interface Science, 2013, 407, 39-46.	5.0	9
61	Enhanced concentration of dispersed carbon nanofibres in organic solvents through their functionalization by fluorination. Journal of Colloid and Interface Science, 2013, 400, 11-17.	5.0	4
62	NMR and NEXAFS Study of Various Graphite Fluorides. Journal of Physical Chemistry C, 2013, 117, 13564-13572.	1.5	40
63	An innovative gas sensor system designed from a sensitive organic semiconductor downstream a nanocarbonaceous chemical filter for the selective detection of NO2 in an environmental context. Sensors and Actuators B: Chemical, 2012, 173, 659-667.	4.0	17
64	Comparative Study of SWCNT Fluorination by Atomic and Molecular Fluorine. Chemistry of Materials, 2012, 24, 1744-1751.	3.2	56
65	Tribological properties of fluorinated nanocarbons with different shape factors. Journal of Fluorine Chemistry, 2012, 144, 10-16.	0.9	21
66	An innovative gas sensor system designed from a sensitive organic semiconductor downstream a nanocarbonaceous chemical filter for selective detection of NO2 in an environmental context. Part II: Interpretations of O3/nanocarbons and NO2/nanocarbons interactions. Sensors and Actuators B: Chemical, 2012, 173, 652-658.	4.0	11
67	The synthesis of multilayer graphene materials by the fluorination of carbon nanodiscs/nanocones. Carbon, 2012, 50, 3897-3908.	5.4	26
68	Tuning the discharge potential of fluorinated carbon used as electrode in primary lithium battery. Electrochimica Acta, 2012, 59, 485-491.	2.6	44
69	Applicative performances of fluorinated carbons through fluorination routes: A review. Journal of Fluorine Chemistry, 2012, 134, 11-17.	0.9	67
70	Solid State NMR study of nanodiamond surface chemistry. Solid State Nuclear Magnetic Resonance, 2011, 40, 144-154.	1.5	30
71	Physical and chemical characterizations of nanometric indigo layers as efficient ozone filter for gas sensor devices. Thin Solid Films, 2011, 520, 971-977.	0.8	12
72	Fluorination of single walled carbon nanotubes at low temperature: Towards the reversible fluorine storage into carbon nanotubes. Journal of Fluorine Chemistry, 2011, 132, 1072-1078.	0.9	25

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73	Friction Properties of Fluorinated Carbon Nanodiscs and Nanocones. Tribology Letters, 2011, 41, 353-362.	1.2	15
74	Modification of ultraâ€highâ€molecular weight polyethylene by various fluorinating routes. Journal of Polymer Science Part A, 2011, 49, 3559-3573.	2.5	47
75	The synthesis of microporous carbon by the fluorination of titanium carbide. Carbon, 2011, 49, 2998-3009.	5.4	22
76	The effect of nanostructure on the thermal properties of fluorinated carbon nanofibres. Carbon, 2011, 49, 4801-4811.	5.4	16
77	The Use of Nanocarbons as Chemical Filters for the Selective Detection of Nitrogen Dioxide and Ozone. Journal of Nanoscience and Nanotechnology, 2010, 10, 5653-5661.	0.9	6
78	Fluorinated nanocarbons using fluorinating agent: Strategies of fluorination and applications. European Physical Journal B, 2010, 75, 133-139.	0.6	15
79	Tribological Properties of Room Temperature Fluorinated Graphite Heat-Treated Under Fluorine Atmosphere. Tribology Letters, 2010, 37, 31-41.	1.2	14
80	New synthesis methods for fluorinated carbon nanofibres and applications. Journal of Fluorine Chemistry, 2010, 131, 676-683.	0.9	34
81	All-organic device with integrated chemical filter dedicated to the selective measurement of NO2 in air. Organic Electronics, 2010, 11, 1223-1229.	1.4	30
82	Fluorination of silicon carbide thin films using pure F2 gas or XeF2. Thin Solid Films, 2010, 518, 6746-6751.	0.8	25
83	Effect of curvature on Câ€“F bonding in fluorinated carbons: from fullerene and derivatives to graphite. Physical Chemistry Chemical Physics, 2010, 12, 1388-1398.	1.3	102
84	Direct Fluorination of Carbon Nanocones and Nanodiscs. Journal of Nanoscience and Nanotechnology, 2009, 9, 4496-4501.	0.9	11
85	Tribological Properties of Fluorinated Carbon Nanofibres. Tribology Letters, 2009, 34, 49-59.	1.2	27
86	Protection of nuclear graphite toward fluoride molten salt by glassy carbon deposit. Journal of Nuclear Materials, 2009, 384, 292-302.	1.3	48
87	Effect of graphitization on fluorination of carbon nanocones and nanodiscs. Carbon, 2009, 47, 2763-2775.	5.4	40
88	Solid-State NMR Study of Nanodiamonds Produced by the Detonation Technique. Journal of Physical Chemistry C, 2009, 113, 10371-10378.	1.5	70
89	Solid-state NMR and EPR study of fluorinated carbon nanofibers. Journal of Solid State Chemistry, 2008, 181, 1915-1924.	1.4	18
90	Carbon nanofibres fluorinated using TbF4 as fluorinating agent. Part II: Adsorption and electrochemical properties. Carbon, 2008, 46, 1017-1024.	5.4	26

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91	Carbon nanofibres fluorinated using TbF4 as fluorinating agent. Part I: Structural properties. Carbon, 2008, 46, 1010-1016.	5.4	41
92	Reactivity of Carbon Nanofibers with Fluorine Gas. Chemistry of Materials, 2007, 19, 161-172.	3.2	73
93	Solid-State NMR Study of the Post-Fluorination of (C_{2.5}F)_n Fluorineâ"GIC. Journal of Physical Chemistry B, 2007, 111, 14143-14151.	1.2	87
94	Heteronuclear dipolar recoupling using Hartmannâ€"Hahn cross polarization: A probe for 19Fâ€"13C distance determination of fluorinated carbon materials. Solid State Nuclear Magnetic Resonance, 2007, 31, 131-140.	1.5	15
95	Fluorinated carbon nanofibres for high energy and high power densities primary lithium batteries. Electrochemistry Communications, 2007, 9, 1850-1855.	2.3	133
96	Magnesium batteries: Towards a first use of graphite fluorides. Journal of Power Sources, 2007, 173, 592-598.	4.0	52
97	Direct fluorination of various poly(p-phenylene): Effects of the polymer synthesis and thermal post-treatment. Polymer, 2007, 48, 3961-3973.	1.8	9
98	Fluorination of poly(p-phenylene) using TbF4 as fluorinating agent. Journal of Fluorine Chemistry, 2007, 128, 1402-1409.	0.9	5
99	EPR and Solid-State NMR Studies of Poly(dicarbon monofluoride) (C2F)n. Journal of Physical Chemistry B, 2006, 110, 11800-11808.	1.2	83
100	Electrochemical performance of low temperature fluorinated graphites used as cathode in primary lithium batteries. Carbon, 2006, 44, 2543-2548.	5.4	49
101	Room temperature graphite fluorination process using chlorine as catalyst. Journal of Physics and Chemistry of Solids, 2006, 67, 1157-1161.	1.9	17
102	Comparative performances for primary lithium batteries of some covalent and semi-covalent graphite fluorides. Journal of Power Sources, 2006, 158, 1365-1372.	4.0	65
103	Solid state NMR studies of covalent graphite fluorides (CF)n and (C2F)n. Journal of Physics and Chemistry of Solids, 2006, 67, 1100-1105.	1.9	21
104	Electrochemical discharge mechanism of fluorinated graphite used as electrode in primary lithium batteries. Journal of Physics and Chemistry of Solids, 2006, 67, 1173-1177.	1.9	28
105	Tribological properties of low-temperature graphite fluorides. Influence of the structure on the lubricating performances. Journal of Physics and Chemistry of Solids, 2006, 67, 1095-1099.	1.9	35
106	Comparative Electrochemical Study of Low Temperature Fluorinated Graphites used as Cathode in Primary Lithium Batteries. ECS Transactions, 2006, 3, 153-163.	0.3	8
107	Direct fluorination of poly(p-phenylene). Polymer, 2005, 46, 6736-6745.	1.8	30
108	Highly fluorinated graphite prepared from graphite fluoride formed using BF3 catalyst. Journal of Fluorine Chemistry, 2005, 126, 1078-1087.	0.9	37

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109	Solid-state 19F and 13C NMR of room temperature fluorinated graphite and samples thermally treated under fluorine: Low-field and high-resolution studies. Journal of Solid State Chemistry, 2005, 178, 1262-1268.	1.4	40
110	Fluorine-intercalated graphite for lithium batteries. , 2005, , 369-395.		11
111	NMR and EPR studies of room temperature highly fluorinated graphite heat-treated under fluorine atmosphere. Carbon, 2004, 42, 1931-1940.	5.4	83
112	Synthesis and Characterization of Highly Fluorinated Graphite Containing sp2 and sp3 Carbon. Chemistry of Materials, 2004, 16, 1786-1792.	3.2	150
113	Hybrid-Type Graphite Fluoride as Cathode Material in Primary Lithium Batteries. Electrochemical and Solid-State Letters, 2004, 7, A159.	2.2	47
114	On the irreversible capacities of disordered carbons in lithium-ion rechargeable batteries. Electrochimica Acta, 2000, 45, 1607-1615.	2.6	62
115	A 7Li NMR study of a hard carbon for lithiumâ€“ion rechargeable batteries. Solid State Ionics, 2000, 127, 187-198.	1.3	76
116	Magnetic properties of mixed graphite containing both hexagonal and rhombohedral forms. European Physical Journal B, 2000, 13, 235-243.	0.6	18
117	A ⁷Li NMR Study of a Hard Carbon as a Function of Temperature and Lithiation State. Molecular Crystals and Liquid Crystals, 2000, 340, 467-472.	0.3	1
118	On the Choice of Carbon Materials at the Negative Electrode of Li-ion Batteries: Graphite vs. Hard Carbons. Molecular Crystals and Liquid Crystals, 2000, 340, 493-498.	0.3	9
119	Effect of Graphite Crystal Structure on Lithium Electrochemical Intercalation. Journal of the Electrochemical Society, 1999, 146, 3660-3665.	1.3	66
120	On the choice of graphite for lithium ion batteries. Journal of Power Sources, 1999, 81-82, 312-316.	4.0	62
121	Chemical and electrochemical intercalation of lithium into boronated carbons. Carbon, 1999, 37, 1961-1964.	5.4	19
122	On the Electrochemical Intercalation of Lithium into Graphitizable Carbons. Molecular Crystals and Liquid Crystals, 1998, 310, 389-396.	0.3	11