Marc Monthioux

List of Publications by Year in descending order

72 papers	7,065 citations	109321 35 h-index	82547 72 g-index
81 all docs	81 docs citations	81 times ranked	8087 citing authors

#	Article	IF	Citations
1	Encapsulated C60 in carbon nanotubes. Nature, 1998, 396, 323-324.	27.8	1,438
2	Solutions of Negatively Charged Graphene Sheets and Ribbons. Journal of the American Chemical Society, 2008, 130, 15802-15804.	13.7	444
3	Filling single-wall carbon nanotubes. Carbon, 2002, 40, 1809-1823.	10.3	439
4	Toxicology of carbon nanomaterials: Status, trends, and perspectives on the special issue. Carbon, 2006, 44, 1028-1033.	10.3	302
5	Carbon science in 2016: Status, challenges and perspectives. Carbon, 2016, 98, 708-732.	10.3	261
6	Carbon nanotube encapsulated fullerenes: a unique class of hybrid materials. Chemical Physics Letters, 1999, 315, 31-36.	2.6	252
7	Comparison between natural and artificial maturation series of humic coals from the Mahakam delta, Indonesia. Organic Geochemistry, 1985, 8, 275-292.	1.8	217
8	A Raman study to obtain crystallite size of carbon materials: A better alternative to the Tuinstraâ€“Koenig law. Carbon, 2014, 80, 629-639.	10.3	186
9	Abundance of encapsulated C60 in single-wall carbon nanotubes. Chemical Physics Letters, 1999, 310, 21-24.	2.6	172
10	Contact Angle Hysteresis at the Nanometer Scale. Physical Review Letters, 2011, 106, 136102.	7.8	95
11	Analyzing the Raman Spectra of Graphenic Carbon Materials from Kerogens to Nanotubes: What Type of Information Can Be Extracted from Defect Bands?. Journal of Carbon Research, 2019, 5, 69.	2.7	91
12	Comparison between extracts from natural and artificial maturation series of Mahakam delta coals. Organic Geochemistry, 1986, 10, 299-311.	1.8	88
13	Room temperature filling of single-wall carbon nanotubes with chromium oxide in open air. Chemical Physics Letters, 2001, 339, 311-318.	2.6	79
14	The Effect of Stress Transfer Within Doubleâ€Walled Carbon Nanotubes Upon Their Ability to Reinforce Composites. Advanced Materials, 2009, 21, 3591-3595.	21.0	71
15	New carbon cone nanotip for use in a highly coherent cold field emission electron microscope. Carbon, 2012, 50, 2037-2044.	10.3	66
16	Low temperature, pressureless sp2 to sp3 transformation of ultrathin, crystalline carbon films. Carbon, 2019, 145, 10-22.	10.3	64
17	Inhibition of microbial growth by carbon nanotube networks. Nanoscale, 2013, 5, 9023.	5.6	63
18	Chemical vapor deposition of pyrolytic carbon on carbon nanotubes. Part 2. Texture and structure. Carbon, 2005, 43, 1265-1278.	10.3	61

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19	Pyrolysis of organic matter in cold-seal pressure autoclaves. Experimental approach and applications. Journal of Analytical and Applied Pyrolysis, 1989, 16, 103-115.	5.5	56
20	Chemical vapour deposition of pyrolytic carbon on carbon nanotubes. Carbon, 2006, 44, 3183-3194.	10.3	51
21	Raman evidence for the successful synthesis of diamane. Carbon, 2020, 169, 129-133.	10.3	49
22	Chemical vapor deposition of pyrolytic carbon on carbon nanotubes. Carbon, 2003, 41, 2897-2912.	10.3	48
23	Spectroscopic analyses of aromatic hydrocarbons extracted from naturally and artificially matured coals. Energy & Fuels, 1992, 6, 166-172.	5.1	47
24	Importance of the oxidation/maturation pair in the evolution of humic coals. Organic Geochemistry, 1984, 7, 249-260.	1.8	45
25	Intense Raman D Band without Disorder in Flattened Carbon Nanotubes. ACS Nano, 2021, 15, 596-603.	14.6	44
26	High performance supercapacitor from chromium oxide-nanotubes based electrodes. Chemical Physics Letters, 2007, 434, 73-77.	2.6	43
27	Carbon beads with protruding cones. Nature, 1997, 385, 211-212.	27.8	41
28	Towards a better understanding of the structure of diamanoÃ¯ds and diamanoÃ¯d/graphene hybrids. Carbon, 2020, 156, 234-241.	10.3	40
29	New insight on carbonisation and graphitisation mechanisms as obtained from a bottom-up analytical approach of X-ray diffraction patterns. Carbon, 2019, 147, 602-611.	10.3	39
30	Behavior of Raman D band for pyrocarbons with crystallite size in the 2â€“5 nm range. Applied Physics A: Materials Science and Processing, 2014, 114, 759-763.	2.3	38
31	Why some carbons may or may not graphitize? The point of view of thermodynamics. Carbon, 2019, 149, 419-435.	10.3	38
32	Mechanical properties of C/SiC composites as explained from their interfacial features. Journal of the European Ceramic Society, 1995, 15, 209-224.	5.7	37
33	Orientation ofC70molecules in peapods as a function of the nanotube diameter. Physical Review B, 2007, 75, .	3.2	37
34	Electrical Detection of Individual Magnetic Nanoparticles Encapsulated in Carbon Nanotubes. ACS Nano, 2011, 5, 2348-2355.	14.6	37
35	Meta- and hybrid-CNTs: A clue for the future development of carbon nanotubes. Materials Science and Engineering C, 2007, 27, 1096-1101.	7.3	32
36	Natural and artificial maturations of a coal series: infrared spectrometry study. Energy & Fuels, 1988, 2, 794-801.	5.1	31

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37	A significant improvement of both yield and purity during SWCNT synthesis via the electric arc process. Carbon, 2007, 45, 1651-1661.	10.3	30
38	Nanoelectromechanical coupling in fullerene peapods probed by resonant electrical transport experiments. Nature Communications, 2010, 1, 37.	12.8	30
39	Formation mechanism of peapod-derived double-walled carbon nanotubes. Physical Review B, 2010, 82, .	3.2	29
40	Sub-Kelvin transport spectroscopy of fullerene peapod quantum dots. Applied Physics Letters, 2006, 89, 233118.	3.3	28
41	Introduction to Carbon Nanotubes. , 2010, , 47-118.		26
42	Spatial confinement model applied to phonons in disordered graphene-based carbons. Carbon, 2016, 105, 275-281.	10.3	26
43	Determining the work function of a carbon-cone cold-field emitter by in situ electron holography. Micron, 2014, 63, 2-8.	2.2	25
44	Introduction to Carbon Nanotubes. , 2007, , 43-112.		25
45	Charged iodide in chains behind the highly efficient iodine doping in carbon nanotubes. Physical Review Materials, 2017, 1, .	2.4	25
46	Transport via coupled states in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>C</mml:mtext><mml:mrow><mml:mn>60</mml:mn></mml:mrow></mml:msu quantum dot. Physical Review B, 2010, 81, .	3.2	22
47	Evidence for electro-chemical interactions between multi-walled carbon nanotubes and human macrophages. Carbon, 2009, 47, 2789-2804.	10.3	21
48	The graphitizability of fullerenes and related textures. Carbon, 1994, 32, 335-343.	10.3	19
49	200â€‰keV cold field emission source using carbon cone nanotip: Application to scanning transmission electron microscopy. Ultramicroscopy, 2017, 182, 303-307.	1.9	19
50	Evidence for the benefit of adding a carbon interphase in an all-carbon composite. Carbon, 2006, 44, 699-709.	10.3	18
51	Chirality dependent surface adhesion of single-walled carbon nanotubes on graphene surfaces. Carbon, 2010, 48, 3050-3056.	10.3	16
52	A new insight on the mechanisms of filling closed carbon nanotubes with molten metal iodides. Carbon, 2016, 110, 48-50.	10.3	16
53	Carbon-fibre-reinforced (YMAS) glass-ceramic matrix composites. I. Preparation, structure and fracture strength. Journal of the European Ceramic Society, 1997, 17, 1485-1500.	5.7	15
54	Progress on Diamane and Diamanoid Thin Film Pressureless Synthesis. Journal of Carbon Research, 2021, 7, 9.	2.7	11

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55	Determining the structure of graphene-based flakes from their morphotype. Carbon, 2017, 115, 128-133.	10.3	10
56	Ultraviolet photon absorption in single- and double-wall carbon nanotubes and peapods: Heating-induced phonon line broadening, wall coupling, and transformation. Physical Review B, 2007, 76, .	3.2	9
57	Resonant Laserâ€Induced Formation of Doubleâ€Walled Carbon Nanotubes from Peapods under Ambient Conditions. Small, 2012, 8, 2045-2052.	10.0	9
58	Electronic coupling in fullerene-doped semiconducting carbon nanotubes probed by Raman spectroscopy and electronic transport. Carbon, 2013, 57, 498-506.	10.3	8
59	The X-ray, Raman and TEM Signatures of Cellulose-Derived Carbons Explained. Journal of Carbon Research, 2022, 8, 4.	2.7	8
60	The Unexpected Complexity of Filling Double-Wall Carbon Nanotubes With Nickel (and Iodine) 1-D Nanocrystals. IEEE Nanotechnology Magazine, 2017, 16, 759-766.	2.0	7
61	Comments on: â€œStructure evolution mechanism of highly ordered graphite during carbonization of cellulose nanocrystalsâ€•by Eom etÂal. [Carbon 150 (2019) 142â€"152]. Carbon, 2020, 160, 405-406.	10.3	7
62	Superior carbon nanotube stability by molecular filling:a single-chirality study at extreme pressures. Carbon, 2021, 183, 884-892.	10.3	7
63	Texture, Nanotexture, and Structure of Carbon Nanotube-Supported Carbon Cones. ACS Nano, 2022, 16, 9287-9296.	14.6	7
64	Introduction to Carbon Nanotubes. , 2004, , 39-98.		6
65	Unveiling the existence and role of a liquid phase in a high temperature (1400 Â°C) pyrolytic carbon deposition process. Carbon Trends, 2021, 5, 100117.	3.0	5
66	Response to â€œComment on the Effect of Stress Transfer Within Doubleâ€Walled Carbon Nanotubes upon Their Ability to Reinforce Compositesâ€• Advanced Materials, 2010, 22, 1180-1181.	21.0	3
67	Burn Them Right! Determining the Optimal Temperature for the Purification of Carbon Materials by Combustion. Journal of Carbon Research, 2022, 8, 31.	2.7	3
68	Ultra-Thin Carbon Films: The Rise of sp3-C-Based 2D Materials?. Journal of Carbon Research, 2021, 7, 30.	2.7	2
69	Largeâ€scale oxidation of multiâ€walled carbon nanotubes in fluidized bed from ozoneâ€containing gas mixtures. Canadian Journal of Chemical Engineering, 2018, 96, 688-695.	1.7	1
70	Combining low and high electron energy diffractions as a powerful tool for studying 2D materials. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	1
71	Introduction to Carbon Nanotubes. , 2004, , 39-98.		1
72	Asymmetrical Cross-Sectional Buckling in Arc-Prepared Multiwall Carbon Nanotubes Revealed by Iodine Filling. Journal of Carbon Research, 2022, 8, 10.	2.7	0