

# Jean-Nol Rouzaud

## List of Publications by Citations

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105  
papers

8,211  
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50  
h-index

90  
g-index

105  
ext. papers

9,038  
ext. citations

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avg, IF

5.68  
L-index

#	Paper	IF	Citations
105	Raman spectra of carbonaceous material in metasediments: a new geothermometer. <i>Journal of Metamorphic Geology</i> , <b>2002</b> , 20, 859-871	4.4	741
104	On the characterization of disordered and heterogeneous carbonaceous materials by Raman spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2003</b> , 59, 2267-76	4.4	582
103	Comparison of quantification methods to measure fire-derived (black/elemental) carbon in soils and sediments using reference materials from soil, water, sediment and the atmosphere. <i>Global Biogeochemical Cycles</i> , <b>2007</b> , 21, n/a-n/a	5.9	413
102	Carbon aerogels, cryogels and xerogels: Influence of the drying method on the textural properties of porous carbon materials. <i>Carbon</i> , <b>2005</b> , 43, 2481-2494	10.4	349
101	Evaluation of a protocol for the quantification of black carbon in sediments. <i>Global Biogeochemical Cycles</i> , <b>2001</b> , 15, 881-890	5.9	306
100	Raman microspectroscopy characterization of carbon blacks: Spectral analysis and structural information. <i>Carbon</i> , <b>2015</b> , 84, 479-490	10.4	257
99	Graphitization in a high-pressure, low-temperature metamorphic gradient: a Raman microspectroscopy and HRTEM study. <i>Contributions To Mineralogy and Petrology</i> , <b>2002</b> , 143, 19-31	3.5	230
98	Structure, microtexture, and optical properties of anthracene and saccharose-based carbons. <i>Carbon</i> , <b>1989</b> , 27, 517-529	10.4	192
97	Carbon films: Structure and microtexture (optical and electron microscopy, Raman spectroscopy). <i>Thin Solid Films</i> , <b>1983</b> , 105, 75-96	2.2	192
96	Structural Modeling of Porous Carbons: Constrained Reverse Monte Carlo Method. <i>Langmuir</i> , <b>2003</b> , 19, 8565-8582	4	191
95	Surface functionality and porosity of activated carbons obtained from chemical activation of wood. <i>Carbon</i> , <b>2000</b> , 38, 669-674	10.4	170
94	Comparative XRD, Raman, and TEM Study on Graphitization of PBO-Derived Carbon Fibers. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 257-268	3.8	150
93	Maturation grade of coals as revealed by Raman spectroscopy: progress and problems. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2005</b> , 61, 2368-77	4.4	144
92	Extreme deuterium excesses in ultracarbonaceous micrometeorites from central Antarctic snow. <i>Science</i> , <b>2010</b> , 328, 742-5	33.3	142
91	Mechanisms of graphite formation from kerogen: experimental evidence. <i>International Journal of Coal Geology</i> , <b>1995</b> , 28, 1-36	5.5	134
90	New experimental constraints on the composition and structure of tholins. <i>Icarus</i> , <b>2008</b> , 198, 218-231	3.8	133
89	Evolution of Barnett Shale organic carbon structure and nanostructure with increasing maturation. <i>Organic Geochemistry</i> , <b>2014</b> , 71, 7-16	3.1	126

88	Early Neanderthal constructions deep in Bruniquel Cave in southwestern France. <i>Nature</i> , <b>2016</b> , 534, 111-114	10.4	121
87	Characterizing various types of defects in nuclear graphite using Raman scattering: Heat treatment, ion irradiation and polishing. <i>Carbon</i> , <b>2015</b> , 95, 364-373	10.4	115
86	Carbon nanoparticles from laser pyrolysis. <i>Carbon</i> , <b>2002</b> , 40, 2775-2789	10.4	115
85	Chemical structure and sources of the macromolecular, resistant, organic fraction isolated from a forest soil (LacadB, south-west France). <i>Organic Geochemistry</i> , <b>2000</b> , 31, 813-827	3.1	115
84	Influence of the atmosphere in the chemical activation of wood by phosphoric acid. <i>Carbon</i> , <b>1998</b> , 36, 306-309	10.4	106
83	Transmission electron microscopy studies on carbon materials prepared by mechanical milling. <i>Carbon</i> , <b>1999</b> , 37, 1941-1959	10.4	104
82	Precursor and metamorphic condition effects on Raman spectra of poorly ordered carbonaceous matter in chondrites and coals. <i>Earth and Planetary Science Letters</i> , <b>2009</b> , 287, 185-193	5.3	102
81	Correlation of the irreversible lithium capacity with the active surface area of modified carbons. <i>Carbon</i> , <b>2005</b> , 43, 2160-2167	10.4	101
80	Natural graphitization of anthracite: Experimental considerations. <i>Carbon</i> , <b>1995</b> , 33, 679-691	10.4	100
79	The first in situ <sup>7</sup> Li nuclear magnetic resonance study of lithium insertion in hard-carbon anode materials for Li-ion batteries. <i>Journal of Chemical Physics</i> , <b>2003</b> , 118, 6038-6045	3.9	99
78	Experimental study of the microtextural and structural transformations of carbonaceous materials under pressure and temperature. <i>European Journal of Mineralogy</i> , <b>2004</b> , 15, 937-951	2.2	91
77	High temperature iron-based catalysts for hydrogen and nanostructured carbon production by methane decomposition. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7832-7843	6.7	89
76	Quantitative high-resolution transmission electron microscopy: a promising tool for carbon materials characterization. <i>Fuel Processing Technology</i> , <b>2002</b> , 77-78, 229-235	7.2	89
75	The effect of temperature on soot properties in premixed methane flames. <i>Combustion and Flame</i> , <b>2010</b> , 157, 1959-1965	5.3	79
74	In Situ <sup>7</sup> Li-Nuclear Magnetic Resonance Observation of Reversible Lithium Insertion into Disordered Carbons. <i>Electrochemical and Solid-State Letters</i> , <b>2003</b> , 6, A225		77
73	Atom transfer radical polymerization (ATRP) initiated by aryl diazonium salts: a new route for surface modification of multiwalled carbon nanotubes by tethered polymer chains. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2006</b> , 287, 217-221	5.1	74
72	Nanodiamond nucleation below 2273K at 15GPa from carbons with different structural organizations. <i>Carbon</i> , <b>2007</b> , 45, 636-648	10.4	72
71	Probing structures of soot formed in premixed flames of methane, ethylene and benzene. <i>Proceedings of the Combustion Institute</i> , <b>2013</b> , 34, 1885-1892	5.9	70

70	Implications of in situ calcification for photosynthesis in a ~ 3.3 Ga-old microbial biofilm from the Barberton greenstone belt, South Africa. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 310, 468-479	5.3	64
69	Carbon nanotubes produced by aerosol pyrolysis: growth mechanisms and post-annealing effects. <i>Diamond and Related Materials</i> , <b>2004</b> , 13, 1266-1269	3.5	63
68	How to obtain a reliable structural characterization of polished graphitized carbons by Raman microspectroscopy. <i>Journal of Raman Spectroscopy</i> , <b>2012</b> , 43, 207-211	2.3	62
67	Transmission Electron Microscopy of CONCORDIA UltraCarbonaceous Antarctic MicroMeteorites (UCAMMs): Mineralogical properties. <i>Geochimica Et Cosmochimica Acta</i> , <b>2012</b> , 76, 68-82	5.5	61
66	Structural and electrochemical characterisation of nitrogen enriched carbons produced by the co-pyrolysis of coal-tar pitch with polyacrylonitrile. <i>Electrochimica Acta</i> , <b>2004</b> , 49, 423-432	6.7	61
65	Origin of insoluble organic matter in type 1 and 2 chondrites: New clues, new questions. <i>Geochimica Et Cosmochimica Acta</i> , <b>2014</b> , 136, 80-99	5.5	60
64	Molecular evidence for life in the 3.5 billion year old Warrawoona chert. <i>Earth and Planetary Science Letters</i> , <b>2008</b> , 272, 476-480	5.3	60
63	Graphitization of carbons synthesized in a confined geometry. <i>Carbon</i> , <b>2006</b> , 44, 3348-3352	10.4	59
62	The first in situ <sup>7</sup> Li NMR study of the reversible lithium insertion mechanism in disorganised carbons. <i>Journal of Physics and Chemistry of Solids</i> , <b>2004</b> , 65, 245-251	3.9	57
61	A new approach to characterize the nanostructure of activated carbons from mathematical morphology applied to high resolution transmission electron microscopy images. <i>Carbon</i> , <b>2013</b> , 52, 239-258 <sup>†</sup>	10.4	54
60	On the optically biaxial character and heterogeneity of anthracites. <i>International Journal of Coal Geology</i> , <b>2000</b> , 44, 227-250	5.5	54
59	Graphitization at low temperatures (600±200 °C) in the presence of iron implications in planetology. <i>Carbon</i> , <b>2014</b> , 66, 178-190	10.4	52
58	Volcaniclastic habitats for early life on Earth and Mars: A case study from ~3.5 Ga-old rocks from the Pilbara, Australia. <i>Planetary and Space Science</i> , <b>2011</b> , 59, 1093-1106	2	52
57	A Raman HRTEM study of the carbonization of wood: A new Raman-based paleothermometer dedicated to archaeometry. <i>Carbon</i> , <b>2016</b> , 102, 319-329	10.4	52
56	Graphitization of Korean anthracites as studied by transmission electron microscopy and X-ray diffraction. <i>International Journal of Coal Geology</i> , <b>1987</b> , 8, 375-393	5.5	50
55	Abundance and composition of the refractory organic fraction of an ancient, tropical soil (Pointe Noire, Congo). <i>Organic Geochemistry</i> , <b>2002</b> , 33, 383-391	3.1	47
54	Nanostructure characterization of carbide-derived carbons by morphological analysis of transmission electron microscopy images combined with physisorption and Raman spectroscopy. <i>Carbon</i> , <b>2016</b> , 105, 314-322	10.4	46
53	A better understanding of the irreversible lithium insertion mechanisms in disordered carbons. <i>Journal of Physics and Chemistry of Solids</i> , <b>2004</b> , 65, 211-217	3.9	45

52	Influence of surface fibre properties and textural organization of a pyrocarbon interphase on the interfacial shear stress of SiC/SiC minicomposites reinforced with Hi-Nicalon S and Tyranno SA3 fibres. <i>Journal of the European Ceramic Society</i> , <b>2014</b> , 34, 179-188	6	44
51	High resolution TEM of chondritic carbonaceous matter: Metamorphic evolution and heterogeneity. <i>Meteoritics and Planetary Science</i> , <b>2012</b> , 47, 345-362	2.8	38
50	Structures, origin and evolution of various carbon phases in the ureilite Northwest Africa 4742 compared with laboratory-shocked graphite. <i>Geochimica Et Cosmochimica Acta</i> , <b>2010</b> , 74, 4167-4185	5.5	38
49	Contribution of transmission electron microscopy to the study of the coal carbonization processes. <i>Fuel Processing Technology</i> , <b>1990</b> , 24, 55-69	7.2	38
48	Dynamic weakening and amorphization in serpentinite during laboratory earthquakes. <i>Geology</i> , <b>2016</b> , 44, 607-610	5	37
47	Wet chemical method for making graphene-like films from carbon black. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 4491-8	9.5	33
46	Size discontinuity between interstellar and chondritic aromatic structures: A high-resolution transmission electron microscopy study. <i>Geochimica Et Cosmochimica Acta</i> , <b>2005</b> , 69, 3911-3917	5.5	33
45	HRTEM study of activated carbons prepared by alkali hydroxide activation of anthracite. <i>Carbon</i> , <b>2004</b> , 42, 1305-1310	10.4	33
44	Application of Fourier self-deconvolution to the FT-i.r. characterization of coals and their N-methyl 2-pyrrolidinone extraction products. <i>Fuel</i> , <b>1995</b> , 74, 217-225	7.1	33
43	Different mechanisms of coke microtexture formation during coking coal carbonization. <i>Fuel</i> , <b>1994</b> , 73, 795-809	7.1	32
42	Characterization of graphite implanted with chlorine ions using combined Raman microspectrometry and transmission electron microscopy on thin sections prepared by focused ion beam. <i>Carbon</i> , <b>2010</b> , 48, 1244-1251	10.4	31
41	Raman microspectrometry of accumulated non-graphitized solid bitumens. <i>Journal of Raman Spectroscopy</i> , <b>1997</b> , 28, 717-724	2.3	31
40	The Raman-Derived Carbonization Continuum: A Tool to Select the Best Preserved Molecular Structures in Archean Kerogens. <i>Astrobiology</i> , <b>2016</b> , 16, 407-17	3.7	30
39	Graphitization of highly porous carbons derived from poly(p-phenylene benzobisoxazole). <i>Carbon</i> , <b>2012</b> , 50, 2929-2940	10.4	29
38	Calculation of reflectance values for two models of texture of carbon materials. <i>International Journal of Coal Geology</i> , <b>1999</b> , 38, 333-348	5.5	29
37	Graphitization of high rank coals: The role of shear strain: experimental considerations. <i>Organic Geochemistry</i> , <b>1991</b> , 17, 585-596	3.1	28
36	Structure, composition, and location of organic matter in the enstatite chondrite Sahara 97096 (EH3). <i>Meteoritics and Planetary Science</i> , <b>2012</b> , 47, 8-29	2.8	27
35	Improved Molecular Models for Porous Carbons. <i>Studies in Surface Science and Catalysis</i> , <b>2001</b> , 132, 647-652	2.7	27

34	Coke properties and their microtexture Part I: Microtextural analysis: A guide for cokemaking. <i>Fuel Processing Technology</i> , <b>1988</b> , 20, 143-154	7.2	27
33	Carbons at the heart of questions on energy and environment: A nanostructural approach. <i>Comptes Rendus - Geoscience</i> , <b>2015</b> , 347, 124-133	1.4	25
32	Influence of the Pyrolysis Conditions on the Nature of Lithium Inserted in Hard Carbons. <i>Journal of Physical Chemistry A</i> , <b>2001</b> , 105, 5794-5800	2.8	25
31	Influence of anthracite pretreatment in the preparation of activated carbons. <i>Fuel</i> , <b>1998</b> , 77, 495-502	7.1	24
30	A small angle X-ray scattering study on the porosity of anthracites. <i>Carbon</i> , <b>2000</b> , 38, 1391-1400	10.4	24
29	Multiple generations of carbonaceous material deposited in Apex chert by basin-scale pervasive hydrothermal fluid flow. <i>Gondwana Research</i> , <b>2014</b> , 25, 284-289	5.1	23
28	Nanostructured coatings of metal containing diamond-like carbon films deposited by femtosecond pulsed laser ablation. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 6272-6278	4.4	23
27	Optical properties of synthetic carbon nanoparticles as model of cosmic dust. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2001</b> , 57, 797-814	4.4	23
26	Organic geochemistry of precambrian shales and schists (Bohemian massif, Central Europe). <i>Organic Geochemistry</i> , <b>1990</b> , 16, 865-872	3.1	23
25	Molecular study of insoluble organic matter in Kainsaz CO3 carbonaceous chondrite: Comparison with CI and CM IOM. <i>Meteoritics and Planetary Science</i> , <b>2008</b> , 43, 1099-1111	2.8	21
24	Multiscale organisation of organic matter associated with gold and uranium minerals in the Witwatersrand basin, South Africa. <i>International Journal of Coal Geology</i> , <b>2009</b> , 78, 77-88	5.5	20
23	Black carbon yields and types in forest and cultivated sandy soils (Landes de Gascogne, France) as determined with different methods: Influence of change in land use. <i>Organic Geochemistry</i> , <b>2006</b> , 37, 1185-1189	3.1	20
22	Influence of the inherent metal species on the graphitization of methane-based carbon nanofibers. <i>Carbon</i> , <b>2012</b> , 50, 5387-5394	10.4	18
21	Coke properties and their microtexture. Part III: First results about relationship between microtexture and reactivity of some cokes. <i>Fuel Processing Technology</i> , <b>1988</b> , 20, 163-175	7.2	18
20	Effect of boron incorporation on the structure and electrical properties of diamond-like carbon films deposited by femtosecond and nanosecond pulsed laser ablation. <i>Thin Solid Films</i> , <b>2009</b> , 518, 1470-1474	2.2	17
19	Complementary X-ray scattering and high resolution imaging of nanostructure development in thermally treated PBO fibers. <i>Carbon</i> , <b>2011</b> , 49, 2960-2970	10.4	17
18	High-Resolution Transmission Electron Microscopy Studies of Graphite Materials Prepared by High-Temperature Treatment of Unburned Carbon Concentrates from Combustion Fly Ashes. <i>Energy &amp; Fuels</i> , <b>2009</b> , 23, 942-950	4.1	15
17	Coking properties of perhydrous low-rank vitrains. Influence of pyrolysis conditions. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2003</b> , 67, 263-276	6	14

16	Structural and adsorption properties of carbons synthesized within taeniolite matrices. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1995</b> , 91, 493-497		10
15	Toward an experimental synthesis of the chondritic insoluble organic matter. <i>Meteoritics and Planetary Science</i> , <b>2015</b> , 50, 1408-1422	2.8	8
14	Temperatures reached by the roof structure of Notre-Dame de Paris in the fire of April 15th 2019 determined by Raman paleothermometry <b>2020</b> , 352, 7-18		8
13	Ultrasonic treatment of glassy carbon for nanoparticle preparation. <i>Ultrasonics Sonochemistry</i> , <b>2017</b> , 35, 615-622	8.9	7
12	Evaluation of Raman spectroscopy to detect fullerenes in geological materials. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , <b>2005</b> , 61, 2364-7	4.4	7
11	Influence of the oxidation of coals of different rank on coke microtexture and other relevant properties. <i>Fuel</i> , <b>1994</b> , 73, 810-815	7.1	6
10	Silica encapsulation of luminescent silicon nanoparticles: stable and biocompatible nanohybrids. <i>Journal of Nanoparticle Research</i> , <b>2012</b> , 14, 1	2.3	5
9	Nanostructure evolution in heat-treated porous carbons derived from PBO polymer. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 536, S464-S468	5.7	5
8	Microtextural study of cokes from hydrolysis of coals. <i>Fuel</i> , <b>1995</b> , 74, 201-207	7.1	5
7	Mechanism of Lithium Insertion in Different Kinds of Carbons. <i>Molecular Crystals and Liquid Crystals</i> , <b>1998</b> , 310, 359-364		4
6	Influence of Pyrolysis Conditions on the Performance of Hard Carbons as Anodes for Lithium Batteries. <i>Molecular Crystals and Liquid Crystals</i> , <b>2000</b> , 340, 431-436		4
5	Search for early traces of fire in the Caune de l'Arago at Tautavel (Eastern Pyrenees, France), combining magnetic susceptibility measurements, microscopic observations, and Raman analysis. <i>Comptes Rendus - Geoscience</i> , <b>2021</b> , 353, 247-264	1.4	2
4	The color of refractory organic carbon. <i>Bulletin - Societe Geologique De France</i> , <b>2018</b> , 189, 9	2.3	1
3	HIGH RESOLUTION TRANSMISSION ELECTRON MICROSCOPY IMAGE ANALYSIS OF DISORDERED CARBONS USED FOR ELECTROCHEMICAL STORAGE OF ENERGY <b>2006</b> , 411-424		1
2	A Comparative Study of Silicate-Oxide Nanocomposites. <i>Molecular Crystals and Liquid Crystals</i> , <b>1998</b> , 311, 295-301		
1	Traces of fire in a 560,000-year-old occupation soil at Caune de l'Arago: response to the article by Professor Henry de Lumley. <i>Comptes Rendus - Geoscience</i> , <b>2022</b> , 354, 47-50	1.4	