

Christophe Laurent

List of Publications by Year in descending order

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103
papers

8,594
citations

87723

38
h-index

42291

92
g-index

104
all docs

104
docs citations

104
times ranked

9046
citing authors

#	ARTICLE	IF	CITATIONS
1	Specific surface area of carbon nanotubes and bundles of carbon nanotubes. Carbon, 2001, 39, 507-514.	5.4	1,782
2	DC and AC Conductivity of Carbon Nanotubes~Polyepoxy Composites. Macromolecules, 2003, 36, 5187-5194.	2.2	557
3	Carbon nanotube~metal~oxide nanocomposites: microstructure, electrical conductivity and mechanical properties. Acta Materialia, 2000, 48, 3803-3812.	3.8	438
4	Large-scale synthesis of single-wall carbon nanotubes by catalytic chemical vapor deposition (CCVD) method. Chemical Physics Letters, 2000, 317, 83-89.	1.2	427
5	Carbon nanotubes in novel ceramic matrix nanocomposites. Ceramics International, 2000, 26, 677-683.	2.3	370
6	Gram-scale CCVD synthesis of double-walled carbon nanotubes. Chemical Communications, 2003, , 1442.	2.2	350
7	The weight and density of carbon nanotubes versus the number of walls and diameter. Carbon, 2010, 48, 2994-2996.	5.4	242
8	Synthesis of single-walled carbon nanotube~Co~MgO composite powders and extraction of the nanotubes. Journal of Materials Chemistry, 2000, 10, 249-252.	6.7	237
9	Synthesis of single-walled carbon nanotubes using binary (Fe, Co, Ni) alloy nanoparticles prepared in situ by the reduction of oxide solid solutions. Chemical Physics Letters, 1999, 300, 236-242.	1.2	236
10	Percolation of single-walled carbon nanotubes in ceramic matrix nanocomposites. Acta Materialia, 2004, 52, 1061-1067.	3.8	198
11	High specific surface area carbon nanotubes from catalytic chemical vapor deposition process. Chemical Physics Letters, 2000, 323, 566-571.	1.2	186
12	Carbon nanotubes~Fe~Alumina nanocomposites. Part II: microstructure and mechanical properties of the hot-Pressed composites. Journal of the European Ceramic Society, 1998, 18, 2005-2013.	2.8	184
13	Effect of Palmitic Acid on the Electrical Conductivity of Carbon Nanotubes~Epoxy Resin Composites. Macromolecules, 2003, 36, 9678-9680.	2.2	176
14	Spark plasma sintering of alumina: Study of parameters, formal sintering analysis and hypotheses on the mechanism(s) involved in densification and grain growth. Acta Materialia, 2011, 59, 1400-1408.	3.8	171
15	Carbon nanotubes grown <i>in situ</i> by a novel catalytic method. Journal of Materials Research, 1997, 12, 613-615.	1.2	168
16	Aligned carbon nanotubes in ceramic-matrix nanocomposites prepared by high-temperature extrusion. Chemical Physics Letters, 2002, 352, 20-25.	1.2	159
17	Catalytic CVD synthesis of double and triple-walled carbon nanotubes by the control of the catalyst preparation. Carbon, 2005, 43, 375-383.	5.4	134
18	A Study of the Formation of Single- and Double-Walled Carbon Nanotubes by a CVD Method. Journal of Physical Chemistry B, 2001, 105, 9699-9710.	1.2	117

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19	Metal nanoparticles for the catalytic synthesis of carbon nanotubes. <i>New Journal of Chemistry</i> , 1998, 22, 1229-1237.	1.4	107
20	The preparation of carbon nanotube (CNT)/copper composites and the effect of the number of CNT walls on their hardness, friction and wear properties. <i>Carbon</i> , 2013, 58, 185-197.	5.4	105
21	Carbon nanotubes-Fe-alumina nanocomposites. Part I: influence of the Fe content on the synthesis of powders. <i>Journal of the European Ceramic Society</i> , 1998, 18, 1995-2004.	2.8	102
22	Double walled carbon nanotube/polymer composites via in-situ nitroxide mediated polymerisation of amphiphilic block copolymers. <i>Carbon</i> , 2005, 43, 873-876.	5.4	100
23	The preparation of double-walled carbon nanotube/Cu composites by spark plasma sintering, and their hardness and friction properties. <i>Carbon</i> , 2011, 49, 4535-4543.	5.4	99
24	Crystal and magnetic structure of piezoelectric, ferrimagnetic and magnetoelectric aluminium iron oxide FeAlO ₃ from neutron powder diffraction. <i>Acta Crystallographica Section B: Structural Science</i> , 1996, 52, 217-222.	1.8	75
25	CCVD synthesis of carbon nanotubes from (Mg,Co,Mo)O catalysts: influence of the proportions of cobalt and molybdenum. <i>Journal of Materials Chemistry</i> , 2004, 14, 646.	6.7	75
26	An investigation of carbon nanotubes obtained from the decomposition of methane over reduced Mg _{1-x} M _x Al ₂ O ₄ spinel catalysts. <i>Journal of Materials Research</i> , 1999, 14, 2567-2576.	1.2	72
27	Toughening and hardening in double-walled carbon nanotube/nanostructured magnesia composites. <i>Carbon</i> , 2010, 48, 1952-1960.	5.4	70
28	Hydrogen Storage in High Surface Area Carbon Nanotubes Produced by Catalytic Chemical Vapor Deposition. <i>Journal of Physical Chemistry B</i> , 2004, 108, 12718-12723.	1.2	69
29	High strength & High conductivity double-walled carbon nanotube Copper composite wires. <i>Carbon</i> , 2016, 96, 212-215.	5.4	65
30	Exchange bias effects in Fe nanoparticles embedded in an antiferromagnetic Cr ₂ O ₃ matrix. <i>Nanotechnology</i> , 2004, 15, S211-S214.	1.3	62
31	Carbon nanotubes and silver flakes filled epoxy resin for new hybrid conductive adhesives. <i>Microelectronics Reliability</i> , 2011, 51, 1230-1234.	0.9	60
32	Synthesis of carbon nanotube-Fe-Al ₂ O ₃ nanocomposite powders by selective reduction of different Al _{1.8} Fe _{0.2} O ₃ solid solutions. <i>Journal of Materials Chemistry</i> , 1998, 8, 1263-1272.	6.7	58
33	Microstructure, microhardness and thermal expansion of CNT/Al composites prepared by flake powder metallurgy. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 105, 126-137.	3.8	56
34	Preparation-microstructure-property relationships in double-walled carbon nanotubes/alumina composites. <i>Carbon</i> , 2013, 53, 62-72.	5.4	45
35	Carbon Nanotubes by a CVD Method. Part II: Formation of Nanotubes from (Mg, Fe)O Catalysts. <i>Journal of Physical Chemistry B</i> , 2002, 106, 13199-13210.	1.2	42
36	Chemical synthesis of metal nanoparticles dispersed in alumina. <i>Scripta Materialia</i> , 1993, 2, 339-346.	0.5	40

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37	Fast and easy preparation of few-layered-graphene/magnesia powders for strong, hard and electrically conducting composites. Carbon, 2018, 136, 270-279.	5.4	39
38	Elaboration, microstructure and reactivity of Cr ₃ C ₂ powders of different morphology. Materials Research Bulletin, 1995, 30, 1535-1546.	2.7	38
39	Influence of the composition of a H ₂ -CH ₄ gas mixture on the catalytic synthesis of carbon nanotubes-Fe/Fe ₃ C-Al ₂ O ₃ nanocomposite powders. Journal of Materials Chemistry, 1999, 9, 1167-1177.	6.7	36
40	Mössbauer spectroscopy study of MgAl ₂ O ₄ -matrix nanocomposite powders containing carbon nanotubes and iron-based nanoparticles. Acta Materialia, 2000, 48, 3015-3023.	3.8	36
41	Carbon nanotubes prepared in situ in a cellular ceramic by the gelcasting-foam method. Journal of the European Ceramic Society, 2003, 23, 1233-1241.	2.8	36
42	Densification during hot-pressing of carbon nanotube-metal-magnesium aluminate spinel nanocomposites. Journal of the European Ceramic Society, 2007, 27, 2183-2193.	2.8	34
43	Carbon Nanotubes by a CVD Method. Part I: Synthesis and Characterization of the (Mg, Fe)O Catalysts. Journal of Physical Chemistry B, 2002, 106, 13186-13198.	1.2	32
44	Fe-Cr/Al ₂ O ₃ metal-ceramic composites: Nature and size of the metal particles formed during hydrogen reduction. Journal of Materials Research, 1994, 9, 229-235.	1.2	31
45	Double-walled carbon nanotube/zirconia composites: Preparation by spark plasma sintering, electrical conductivity and mechanical properties. Ceramics International, 2015, 41, 13731-13738.	2.3	30
46	Fe/Co Alloys for the Catalytic Chemical Vapor Deposition Synthesis of Single- and Double-Walled Carbon Nanotubes (CNTs). 1. The CNT-Fe/Co-MgO System. Journal of Physical Chemistry B, 2005, 109, 17813-17824.	1.2	29
47	Synthesis of the metastable γ -Al _{1.8} Fe _{0.2} O ₃ solid solution from precursors prepared by combustion. Journal of the European Ceramic Society, 2006, 26, 3099-3111.	2.8	27
48	Dog-bone copper specimens prepared by one-step spark plasma sintering. Journal of Materials Science, 2015, 50, 7364-7373.	1.7	27
49	Pressure-induced radial collapse in few-wall carbon nanotubes: A combined theoretical and experimental study. Carbon, 2017, 125, 429-436.	5.4	27
50	Spectroscopic detection of carbon nanotube interaction with amphiphilic molecules in epoxy resin composites. Journal of Applied Physics, 2005, 97, 034303.	1.1	26
51	Introduction to Carbon Nanotubes. , 2010, , 47-118.		26
52	A metastable chromium carbide powder obtained by carburization of a metastable chromium oxide. Journal of Alloys and Compounds, 1996, 243, 59-66.	2.8	25
53	Synthesis of carbon nanotubes-Fe-Al ₂ O ₃ powders.. Materials Research Bulletin, 2000, 35, 661-673.	2.7	25
54	Introduction to Carbon Nanotubes. , 2007, , 43-112.		25

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55	Fe/Co Alloys for the Catalytic Chemical Vapor Deposition Synthesis of Single- and Double-Walled Carbon Nanotubes (CNTs). 2. The CNT ⁺ Fe/Co ⁺ MgAl ₂ O ₄ System. <i>Journal of Physical Chemistry B</i> , 2005, 109, 17825-17830.	1.2	24
56	Synthesis and characterization of Fe/Co/Ni alloys-MgO nanocomposite powders. <i>Journal of Materials Chemistry</i> , 1999, 9, 1003-1009.	6.7	23
57	In situ CCVD synthesis of carbon nanotubes within a commercial ceramic foam. <i>Journal of Materials Chemistry</i> , 2005, 15, 4041.	6.7	23
58	Catalytic chemical vapor deposition synthesis of single- and double-walled carbon nanotubes from γ -Al ₂ O ₃ powders and self-supported foams. <i>Carbon</i> , 2009, 47, 482-492.	5.4	23
59	Synthesis, microstructure and oxidation of Co-MgAl ₂ O ₄ and Ni-MgAl ₂ O ₄ nanocomposite powders. <i>Scripta Materialia</i> , 1996, 7, 497-507.	0.5	22
60	Iron-alumina interface in ceramic matrix nanocomposites. <i>Journal of Alloys and Compounds</i> , 1992, 188, 179-181.	2.8	21
61	Elaboration, microstructure and oxidation behavior of metal-alumina and metal-chromia nanocomposite powders. <i>Scripta Materialia</i> , 1995, 6, 317-320.	0.5	20
62	Synthesis, characterization and thermal behaviour of Fe _{0.65} Co _{0.35} -MgAl ₂ O ₄ and Fe _{0.65} Ni _{0.35} -MgAl ₂ O ₄ nanocomposite powders. <i>Journal of Materials Chemistry</i> , 1997, 7, 2457-2467.	6.7	20
63	Carbon nanotube/alumina and graphite/alumina composite coatings on stainless steel for tribological applications. <i>Materials Today Communications</i> , 2016, 8, 118-126.	0.9	20
64	Reduction behaviour of Fe ³⁺ /Al ₂ O ₃ obtained from the mixed oxalate precursor and the formation of the Fe ⁰ -Al ₂ O ₃ metal-ceramic composite. <i>Journal of Materials Chemistry</i> , 1993, 3, 513-518.	6.7	19
65	Influence of pulse current during Spark Plasma Sintering evidenced on reactive alumina-hematite powders. <i>Journal of the European Ceramic Society</i> , 2011, 31, 2247-2254.	2.8	19
66	High strength-high conductivity nanostructured copper wires prepared by spark plasma sintering and room-temperature severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 649, 209-213.	2.6	19
67	Zirconia-spinel composites. Part II: mechanical properties. <i>Materials Research Bulletin</i> , 2000, 35, 1979-1987.	2.7	18
68	Spark plasma sintering of double-walled carbon nanotubes. <i>Carbon</i> , 2008, 46, 1812-1816.	5.4	18
69	High strength-high conductivity carbon nanotube-copper wires with bimodal grain size distribution by spark plasma sintering and wire-drawing. <i>Scripta Materialia</i> , 2017, 137, 78-82.	2.6	18
70	Probing the electronic properties of individual carbon nanotube in 35 T pulsed magnetic field. <i>Chemical Physics Letters</i> , 2003, 372, 733-738.	1.2	17
71	Surface Composition of Carbon Nanotubes-Fe-Alumina Nanocomposite Powders: An Integral Low-Energy Electron Mossbauer Spectroscopic Study. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5756-5761.	1.5	17
72	Microstructure and Mechanical Properties of AA7075 Aluminum Alloy Fabricated by Spark Plasma Sintering (SPS). <i>Materials</i> , 2021, 14, 430.	1.3	17

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73	Synthesis of Fe-ZrO ₂ nanocomposite powders by reduction in H ₂ of a nanocrystalline (Zr, Fe)O ₂ solid solution. <i>Journal of Alloys and Compounds</i> , 2009, 471, 204-210.	2.8	15
74	Nanostructured 1% silver-copper composite wires with a high tensile strength and a high electrical conductivity. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 761, 138048.	2.6	15
75	Light scattering of double wall carbon nanotubes under hydrostatic pressure: pressure effects on the internal and external tubes. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 3360-3366.	0.7	14
76	One-step synthesis of few-layered-graphene/alumina powders for strong and tough composites with high electrical conductivity. <i>Journal of the European Ceramic Society</i> , 2020, 40, 5779-5789.	2.8	14
77	(Mg,Co)O Solid Solution Precursors for the Large Scale Synthesis of Carbon Nanotubes by Catalytic Chemical Vapor Deposition. <i>Journal of the American Ceramic Society</i> , 2002, 85, 2666-2669.	1.9	13
78	Electrical conductive double-walled carbon nanotubes SiO ₂ glass nanocomposites prepared by the sol-gel process and spark plasma sintering. <i>Scripta Materialia</i> , 2009, 61, 988-991.	2.6	13
79	Iron-stabilized nanocrystalline ZrO ₂ solid solutions: Synthesis by combustion and thermal stability. <i>Materials Research Bulletin</i> , 2009, 44, 1301-1311.	2.7	13
80	In situ high-temperature Mössbauer spectroscopic study of carbon nanotube Fe/Al ₂ O ₃ nanocomposite powder. <i>Thermochimica Acta</i> , 2009, 494, 86-93.	1.2	13
81	Microcontact printing process for the patterned growth of individual CNTs. <i>Microelectronic Engineering</i> , 2004, 73-74, 564-569.	1.1	12
82	Large-Diameter Single-Wall Carbon Nanotubes Formed Alongside Small-Diameter Double-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1524-1535.	1.5	11
83	Dispersion of graphite flakes into boehmite sols for the preparation of bi-layer-graphene / alumina coatings on stainless steel for tribological applications. <i>Journal of the European Ceramic Society</i> , 2019, 39, 1304-1315.	2.8	11
84	Toughened carbon nanotube/iron/mullite composites prepared by spark plasma sintering. <i>Ceramics International</i> , 2013, 39, 5513-5519.	2.3	10
85	A new fast method for ceramic foam impregnation: Application to the CCVD synthesis of carbon nanotubes. <i>Applied Catalysis A: General</i> , 2007, 319, 7-13.	2.2	9
86	Tetragonal-(Zr,Co)O ₂ solid solution: Combustion synthesis, thermal stability in air and reduction in H ₂ , H ₂ + CH ₄ and H ₂ + C ₂ H ₄ atmospheres. <i>Materials Research Bulletin</i> , 2008, 43, 3088-3099.	2.7	9
87	Two new metal-organic framework structures derived from terephthalate and linear trimetallic zinc building units. <i>Inorganica Chimica Acta</i> , 2015, 426, 15-19.	1.2	9
88	CCVD Synthesis of Single- And Double-Walled Carbon Nanotubes: Influence of the Addition of Molybdenum to Fe ₂ O ₃ Self-Supported Foams. <i>Journal of Physical Chemistry C</i> , 2008, 112, 18825-18831.	1.5	8
89	Presence of Metallic Fe Nanoclusters in Fe-(Al,Fe) ₂ O ₃ Solid Solutions. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16256-16263.	1.5	8
90	Hardness and friction behavior of bulk CoAl ₂ O ₄ and Co/Al ₂ O ₃ composite layers formed during Spark Plasma Sintering of CoAl ₂ O ₄ powders. <i>Ceramics International</i> , 2012, 38, 5209-5217.	2.3	7

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91	Introduction to Carbon Nanotubes. , 2004, , 39-98.		6
92	Synthesis of $\text{Fe}^{3+}(\text{Al}_{1-x}\text{Fe}_x)_2\text{O}_3$ solid solutions from oxinate precursors and formation of carbon nanotubes from the solid solutions using methane or ethylene as carbon source. Journal of Materials Research, 2008, 23, 3096-3111.	1.2	6
93	Catalytic Chemical Vapor Deposition Synthesis of Double-Walled and Few-Walled Carbon Nanotubes by Using a MoO_3 -Supported Conditioning Catalyst to Control the Formation of Iron Catalytic Particles within an $\text{Al}_{1.8}\text{Fe}_0.2\text{O}_3$ Self-Supported Foam. Journal of Physical Chemistry C, 2010, 114, 19188-19193.	1.5	5
94	Influence of alloying on the tensile strength and electrical resistivity of silver nanowire: copper composites macroscopic wires. Journal of Materials Science, 2021, 56, 4884-4895.	1.7	5
95	Fe-Substituted Mullite Powders for the In Situ Synthesis of Carbon Nanotubes by Catalytic Chemical Vapor Deposition. Journal of Physical Chemistry C, 2009, 113, 11239-11245.	1.5	4
96	Few-layered-graphene/zirconia composites: Single-step powder synthesis, spark plasma sintering, microstructure and properties. Journal of the European Ceramic Society, 2022, 42, 2349-2361.	2.8	4
97	An Unusual 3D Zinc-Organic Framework Constructed from Paddle-Wheel-Based Carboxylate Sheets Bridged by Acetate Ions. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2016, 642, 709-713.	0.6	3
98	High Strength-High Conductivity Silver Nanowire-Copper Composite Wires by Spark Plasma Sintering and Wire-Drawing for Non-Destructive Pulsed Fields. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-4.	1.1	1
99	Introduction to Carbon Nanotubes. , 2004, , 39-98.		1
100	Carbon Nanotubes from Oxide Solid Solution: A Way to Composite Powders, Composite Materials and Isolated Nanotubes. , 2002, , 151-168.		0
101	Integral low-energy electron Mössbauer spectroscopic studies of the surfaces of carbon nanotube-nanocomposite powders. Hyperfine Interactions, 2009, 189, 125-130.	0.2	0
102	Integral low-energy electron Mössbauer spectroscopic studies of the surfaces of carbon nanotube-nanocomposite powders. , 2009, , 125-130.		0
103	Al matrix composites reinforced by in situ synthesized graphene-Cu hybrid layers: interface control by spark plasma sintering conditions. Journal of Materials Science, 2022, 57, 6266-6281.	1.7	0