

# Arnaud Magrez

## List of Publications by Year in descending order

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128  
papers

5,549  
citations

87723

38  
h-index

85405

71  
g-index

133  
all docs

133  
docs citations

133  
times ranked

9821  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cellular Toxicity of Carbon-Based Nanomaterials. Nano Letters, 2006, 6, 1121-1125.	4.5	1,011
2	Are Carbon Nanotube Effects on Green Algae Caused by Shading and Agglomeration?. Environmental Science & Technology, 2011, 45, 6136-6144.	4.6	273
3	Tunable Polaronic Conduction in Anatase $\text{TiO}_2$ . Physical Review Letters, 2013, 110, 196403.	2.9	237
4	In Vitro Investigation of the Cellular Toxicity of Boron Nitride Nanotubes. ACS Nano, 2011, 5, 3800-3810.	7.3	184
5	Growth of Single-Crystalline $\text{KNbO}_3$ Nanostructures. Journal of Physical Chemistry B, 2006, 110, 58-61.	1.2	157
6	Microengineered $\text{CH}_3\text{NH}_3\text{PbI}_3$ Nanowire/Graphene Phototransistor for Low-Intensity Light Detection at Room Temperature. Small, 2015, 11, 4824-4828.	5.2	151
7	Direct growth of carbon nanotubes on carbon fibers: Effect of the CVD parameters on the degradation of mechanical properties of carbon fibers. Diamond and Related Materials, 2015, 51, 39-48.	1.8	141
8	Catalytic CVD Synthesis of Carbon Nanotubes: Towards High Yield and Low Temperature Growth. Materials, 2010, 3, 4871-4891.	1.3	130
9	Polymorphism in Micro-, Submicro-, and Nanocrystalline $\text{NaNbO}_3$ . Journal of Physical Chemistry B, 2005, 109, 20122-20130.	1.2	113
10	Diuron Sorbed to Carbon Nanotubes Exhibits Enhanced Toxicity to <i>Chlorella vulgaris</i> . Environmental Science & Technology, 2013, 47, 7012-7019.	4.6	106
11	High-Efficiency Solid-State Dye-Sensitized Solar Cells: Fast Charge Extraction through Self-Assembled 3D Fibrous Network of Crystalline $\text{TiO}_2$ Nanowires. ACS Nano, 2010, 4, 7644-7650.	7.3	105
12	Evaluation of the toxicity of graphene derivatives on cells of the lung luminal surface. Carbon, 2013, 64, 45-60.	5.4	94
13	Cellular Toxicity of $\text{TiO}_2$ -Based Nanofilaments. ACS Nano, 2009, 3, 2274-2280.	7.3	89
14	Controlled Positioning of Carbon Nanotubes by Dielectrophoresis: Insights into the Solvent and Substrate Role. ACS Nano, 2010, 4, 279-284.	7.3	85
15	Temperature-induced Phase Transitions in Micro-, Submicro-, and Nanocrystalline $\text{NaNbO}_3$ . Journal of Physical Chemistry C, 2007, 111, 18493-18502.	1.5	82
16	Lithium niobate nanowires synthesis, optical properties, and manipulation. Applied Physics Letters, 2009, 95, 143105.	1.5	82
17	Management of nanomaterials safety in research environment. Particle and Fibre Toxicology, 2010, 7, 40.	2.8	77
18	Growth of Carbon Nanotubes with Alkaline Earth Carbonate as Support. Journal of Physical Chemistry B, 2005, 109, 10087-10091.	1.2	74

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19	Filming the formation and fluctuation of skyrmion domains by cryo-Lorentz transmission electron microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14212-14217.	3.3	68
20	Nanopore Integrated Nanogaps for DNA Detection. <i>Nano Letters</i> , 2014, 14, 244-249.	4.5	63
21	Melting of a skyrmion lattice to a skyrmion liquid via a hexatic phase. <i>Nature Nanotechnology</i> , 2020, 15, 761-767.	15.6	63
22	Evidence of an Equimolar C <sub>2</sub> H <sub>2</sub> â€“CO <sub>2</sub> Reaction in the Synthesis of Carbon Nanotubes. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 441-444.	7.2	61
23	Low-Temperature, Highly Efficient Growth of Carbon Nanotubes on Functional Materials by an Oxidative Dehydrogenation Reaction. <i>ACS Nano</i> , 2010, 4, 3702-3708.	7.3	59
24	Elevated transition temperature in Ge doped VO <sub>2</sub> thin films. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	59
25	Phase transformation of KNaNb <sub>2</sub> O <sub>6</sub> induced by size effect. <i>Chemical Physics Letters</i> , 2004, 391, 288-292.	1.2	57
26	Towards electron spin resonance of mechanically exfoliated graphene. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 2558-2561.	0.7	57
27	FeOx magnetization enhancing E. coli inactivation by orders of magnitude on Ag-TiO <sub>2</sub> nanotubes under sunlight. <i>Applied Catalysis B: Environmental</i> , 2017, 202, 438-445.	10.8	57
28	Particle size effect on the crystal structure symmetry of K <sub>0.5</sub> Na <sub>0.5</sub> NbO <sub>3</sub> . <i>Journal of the European Ceramic Society</i> , 2005, 25, 2075-2079.	2.8	54
29	Striking Influence of the Catalyst Support and Its Acidâ€“Base Properties: New Insight into the Growth Mechanism of Carbon Nanotubes. <i>ACS Nano</i> , 2011, 5, 3428-3437.	7.3	54
30	Room-Temperature Negative Differential Resistance in Graphene Field Effect Transistors: Experiments and Theory. <i>ACS Nano</i> , 2015, 9, 620-625.	7.3	54
31	Growth Kinetics of One-Dimensional KNbO <sub>3</sub> Nanostructures by Hydrothermal Processing Routes. <i>Journal of Physical Chemistry B</i> , 2005, 109, 14331-14334.	1.2	53
32	Influence of the initial state of carbon nanotubes on their colloidal stability under natural conditions. <i>Environmental Pollution</i> , 2011, 159, 1641-1648.	3.7	48
33	Microemulsion mediated synthesis of nanocrystalline (K <sub>x</sub> Na <sub>1-x</sub> )NbO <sub>3</sub> powders. <i>Journal of Crystal Growth</i> , 2005, 280, 191-200.	0.7	46
34	Morphology Engineering: A Route to Highly Reproducible and High Efficiency Perovskite Solar Cells. <i>ChemSusChem</i> , 2017, 10, 1624-1630.	3.6	46
35	The Role of Transport Agents in MoS <sub>2</sub> Single Crystals. <i>Journal of Physical Chemistry C</i> , 2015, 119, 3918-3922.	1.5	44
36	Diameter-Dependent Elastic Modulus Supports the Metastable-Catalyst Growth of Carbon Nanotubes. <i>Nano Letters</i> , 2007, 7, 1598-1602.	4.5	43

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37	In Situ Electric Field Skyrmion Creation in Magnetolectric Cu <sub>2</sub> OSeO <sub>3</sub> . Nano Letters, 2018, 18, 5167-5171.	4.5	43
38	Long-term colloidal stability of 10 carbon nanotube types in the absence/presence of humic acid and calcium. Environmental Pollution, 2012, 169, 64-73.	3.7	42
39	Electrical conductivity of multi-walled carbon nanotubes-SU8 epoxy composites. Applied Physics Letters, 2013, 102, .	1.5	39
40	Van der Waals MoS <sub>2</sub> /VO <sub>2</sub> heterostructure junction with tunable rectifier behavior and efficient photoresponse. Scientific Reports, 2017, 7, 14250.	1.6	37
41	Synthesis of Homogeneous Manganese-Doped Titanium Oxide Nanotubes from Titanate Precursors. Journal of Physical Chemistry C, 2013, 117, 697-702.	1.5	36
42	Size dependence of the magnetic response of graphite oxide and graphene flakes – an electron spin resonance study. Physica Status Solidi (B): Basic Research, 2010, 247, 2958-2961.	0.7	35
43	A Gibeon meteorite yields a high-performance water oxidation electrocatalyst. Energy and Environmental Science, 2016, 9, 3448-3455.	15.6	35
44	Capacitive nanoelectromechanical switch based on suspended carbon nanotube array. Applied Physics Letters, 2010, 97, .	1.5	32
45	Pressure-Induced Phase Transitions in Micro-, Submicro-, and Nanocrystalline NaNbO <sub>3</sub> . Journal of Physical Chemistry C, 2008, 112, 9610-9616.	1.5	31
46	Optical properties of BiTeBr and BiTeCl. Physical Review B, 2014, 90, .	1.1	31
47	Influence of TiO <sub>2</sub> phase composition on the photocatalytic activity of TiO <sub>2</sub> /MWCNT composites prepared by combined sol-gel/hydrothermal method. Journal of Molecular Catalysis A, 2016, 414, 140-147.	4.8	31
48	Uniformly dispersed deposition of colloidal nanoparticles and nanowires by boiling. Applied Physics Letters, 2007, 91, 173112.	1.5	30
49	Dye metachromasy on titanate nanowires: sensing humidity with reversible molecular dimerization. Journal of Materials Chemistry, 2012, 22, 8778.	6.7	30
50	Enhanced low-temperature thermoelectrical properties of BiTeCl grown by topotactic method. Scripta Materialia, 2014, 76, 69-72.	2.6	30
51	Carbon nanotubes-SU8 composite for flexible conductive inkjet printable applications. Journal of Materials Chemistry, 2012, 22, 14030.	6.7	29
52	Photocatalytic activity of TiO <sub>2</sub> /SWCNT and TiO <sub>2</sub> /MWCNT nanocomposites with different carbon nanotube content. Physica Status Solidi (B): Basic Research, 2011, 248, 2496-2499.	0.7	27
53	Probing titanate nanowire surface acidity through methylene blue adsorption in colloidal suspension and on thin films. Journal of Colloid and Interface Science, 2014, 416, 190-197.	5.0	27
54	Dirac nodal lines and flat-band surface state in the functional oxide $\text{RuO}_2$ . Physical Review B, 2018, 98, .		

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55	Growth of carbon nanotubes on carbon fibers without strength degradation. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2420-2423.	0.7	24
56	Role of the particle size polydispersity in the electrical conductivity of carbon nanotube-epoxy composites. <i>Scientific Reports</i> , 2017, 7, 12553.	1.6	24
57	Manufacturing and investigations of i-butane sensor made of SnO <sub>2</sub> /multiwall-carbon-nanotube nanocomposite. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 890-896.	4.0	23
58	Preparation and characterization of multiwalled carbon nanotube/In <sub>2</sub> O <sub>3</sub> composites. <i>Carbon</i> , 2013, 60, 266-272.	5.4	23
59	Photosynthetic reaction center protein in nanostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 2700-2703.	0.7	22
60	Reinforcement of CVD grown multi-walled carbon nanotubes by high temperature annealing. <i>AIP Advances</i> , 2013, 3, .	0.6	22
61	Efficient voltammetric discrimination of free bilirubin from uric acid and ascorbic acid by a CVD nanographite-based microelectrode. <i>Talanta</i> , 2014, 130, 423-426.	2.9	22
62	Structural and transport properties of a new class of oxide ion conductors: Nd <sub>4</sub> [Ga <sub>2</sub> (1-x)M <sub>2</sub> O <sub>7+x</sub> ]-1-x]O <sub>2</sub> (M=Ti, Ge). <i>Solid State Sciences</i> , 2002, 4, 1413-1418.	1.5	21
63	Spin-Resolved Electronic Response to the Phase Transition in $\text{MoTe}_2$ . <i>Physical Review Letters</i> , 2018, 121, 156401.	2.9	21
64	Influence of the catalyst drying process and catalyst support particle size on the carbon nanotubes produced by CCVD. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 1915-1918.	0.7	20
65	Synthesis, electrical resistivity, thermo-electric power and magnetization of cubic ZnMnO <sub>3</sub> . <i>Solid State Communications</i> , 2011, 151, 487-490.	0.9	20
66	Sub-terahertz spectroscopy of magnetic resonance in BiFeO <sub>3</sub> using a vector network analyzer. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	20
67	Consolidation, Microstructure and Crystallography of Dense NaNbO <sub>3</sub> Ceramics with Ultra-Fine Grain Size. <i>Journal of the Ceramic Society of Japan</i> , 2006, 114, 995-1000.	1.3	19
68	Sorption kinetics and equilibrium of the herbicide diuron to carbon nanotubes or soot in absence and presence of algae. <i>Environmental Pollution</i> , 2014, 192, 147-153.	3.7	18
69	High-Performance Multipanel Biosensors Based on a Selective Integration of Nanographite Petals. <i>Nano Letters</i> , 2014, 14, 3180-3184.	4.5	17
70	Probing the coupling between a doublon excitation and the charge-density wave in TaS <sub>2</sub> by ultrafast optical spectroscopy. <i>Physical Review B</i> , 2016, 94, .	1.1	17
71	Iron-Rich Natural Mineral Gibeon Meteorite Catalyzed N-Formylation of Amines using CO <sub>2</sub> as the C1 Source. <i>ChemistrySelect</i> , 2018, 3, 10271-10276.	0.7	17
72	Study of the mechanical response of carbon nanotubes/SiO <sub>2</sub> composites by nanoindentation. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 3072-3075.	0.7	16

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73	Reinforcing multiwall carbon nanotubes by electron beam irradiation. Journal of Applied Physics, 2010, 108, 084314.	1.1	16
74	Electrical conduction of photo-patternable SU8-graphene composites. Carbon, 2014, 80, 364-372.	5.4	16
75	Large magnetothermopower and anomalous Nernst effect in $\text{HfTe}_5$ . Physical Review B, 2019, 100, .	1.1	16
76	High-Pressure Study of Anatase TiO <sub>2</sub> . Materials, 2010, 3, 1509-1514.	1.3	15
77	Synthesis of Nanosized Mn-Doped ZnO by Low Temperature Decomposition of Hydrozincite Precursors. Crystal Growth and Design, 2010, 10, 4437-4441.	1.4	15
78	Dispersion Characteristics and Aggregation in Titanate Nanowire Colloids. ChemPlusChem, 2014, 79, 592-600.	1.3	15
79	Thermal diffusivity measurements of templated nanocomposite using infrared thermography. Materials Letters, 2014, 115, 106-108.	1.3	15
80	Graphene Negative Differential Resistance Circuit With Voltage-Tunable High Performance at Room Temperature. IEEE Electron Device Letters, 2015, 36, 865-867.	2.2	15
81	Sensing hydrogen peroxide by carbon nanotube/horseradish peroxidase bio-nanocomposite. Physica Status Solidi (B): Basic Research, 2013, 250, 2559-2563.	0.7	14
82	Photocatalytic and phototoxic properties of TiO <sub>2</sub> -based nanofilaments: ESR and AFM assays. Nanotoxicology, 2012, 6, 813-824.	1.6	13
83	Magnetism in nanoscale graphite flakes as seen via electron spin resonance. Physical Review B, 2012, 85, .	1.1	13
84	Tuning the length dispersion of multi-walled carbon nanotubes by ball milling. AIP Advances, 2013, 3, .	0.6	13
85	Preparation and characterization of SU8-graphene carbon nanotube composites. Physica Status Solidi (B): Basic Research, 2009, 246, 2461-2464.	0.7	11
86	Long term stabilization of reaction center protein photochemistry by carbon nanotubes. Physica Status Solidi (B): Basic Research, 2011, 248, 2454-2457.	0.7	11
87	Carbon nanotubes quench singlet oxygen generated by photosynthetic reaction centers. Physica Status Solidi (B): Basic Research, 2013, 250, 2539-2543.	0.7	11
88	Electrical property measurements of Cr-N codoped TiO <sub>2</sub> epitaxial thin films grown by pulsed laser deposition. Applied Physics Letters, 2013, 102, .	1.5	11
89	Chemical exchange at the ferroelectric phase transition of lead germanate revealed by solid state <sup>207</sup> Pb nuclear magnetic resonance. Physical Chemistry Chemical Physics, 2019, 21, 1100-1109.	1.3	11
90	Doping dependence of the G-band Raman spectra of an individual multiwall carbon nanotube. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 2466-2470.	1.3	10

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91	Direct growth of nanotubes and graphene nanoflowers on electrochemical platinum electrodes. <i>Nanoscale</i> , 2013, 5, 12448.	2.8	10
92	Cyan titania nanowires: Spectroscopic study of the origin of the self-doping enhanced photocatalytic activity. <i>Catalysis Today</i> , 2017, 284, 52-58.	2.2	10
93	Multiwalled Carbon Nanotubes Produced by a Continuous CVD Method and Their Use in Melt Mixed Composites with Polycarbonate. <i>Macromolecular Symposia</i> , 2007, 254, 392-399.	0.4	9
94	Preparation of titania covered multi-walled carbon nanotube thin films. <i>Materials and Design</i> , 2015, 86, 198-203.	3.3	9
95	Time-resolved ARPES at LACUS: Band Structure and Ultrafast Electron Dynamics of Solids. <i>Chimia</i> , 2017, 71, 273.	0.3	9
96	La@C <sub>82</sub> as a spin-active filling of SWCNTs: ESR study of magnetic and photophysical properties. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 2042-2046.	0.7	8
97	Crystal Structure, Transport, and Magnetic Properties of an Ir <sup>6+</sup> Compound Ba <sub>8</sub> Al <sub>2</sub> IrO <sub>14</sub> . <i>Inorganic Chemistry</i> , 2015, 54, 4371-4376.	1.9	8
98	Cell type dependence of carbon based nanomaterial toxicity. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 3059-3062.	0.7	7
99	Charge stabilization by reaction center protein immobilized to carbon nanotubes functionalized by amine groups and poly(3-thiophene acetic acid) conducting polymer. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2386-2389.	0.7	7
100	Functionalized graphene grown by oxidative dehydrogenation chemistry. <i>Carbon</i> , 2014, 71, 11-19.	5.4	7
101	Photochemical processes developed in composite based on highly separated metallic and semiconducting SWCNTs functionalized with polydiphenylamine. <i>Carbon</i> , 2015, 81, 426-438.	5.4	7
102	Single potassium niobate nano/microsized particles as local mechano-optical Brownian probes. <i>Nanoscale</i> , 2016, 8, 6810-6819.	2.8	7
103	Effects of composition and pressure on electronic states of iron in bridgmanite. <i>American Mineralogist</i> , 2020, 105, 1030-1039.	0.9	7
104	Chemical challenges during the synthesis of MWCNT-based inorganic nanocomposite materials. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 2360-2365.	0.7	6
105	Fabrication of homogeneous titania/MWNT composite materials. <i>Materials Research Bulletin</i> , 2011, 46, 1991-1996.	2.7	5
106	The effect of titania precursor on the morphology of prepared TiO <sub>2</sub> /MWCNT nanocomposite materials. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 2384-2388.	0.7	5
107	Anti-Stokes Raman spectroscopy as a method to identify metallic and mixed metallic/semiconducting configurations of multi-walled carbon nanotubes. <i>Analytical Methods</i> , 2015, 7, 6225-6230.	1.3	5
108	Singlet state formation and its impact on the magnetic structure in the tetramer system SeCuO <sub>3</sub> . <i>Physical Review B</i> , 2018, 98, .	1.1	5

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109	Electrical transport in onion-like carbon-PMMA nanocomposites. Applied Physics Letters, 2019, 114, .	1.5	5
110	Photosynthetic reaction centre/carbon nanotube bundle composites. Physica Status Solidi (B): Basic Research, 2014, 251, 2366-2371.	0.7	4
111	Materials and Devices for Nanoelectronic Systems Beyond Ultimately Scaled CMOS. , 2009, , 23-44.		4
112	Equilibrium concentration of singlet oxygen in photoreaction of reaction center/carbon nanotube bionanocomposites. Physica Status Solidi (B): Basic Research, 2015, 252, 2479-2484.	0.7	3
113	Magnetic dynamics across the in-field transition in $\text{CaCo}_2\text{O}_6$ . Physical Review B, 2020, 102, .	1.1	3
114	Toxicity Study of Nanofibers. , 2011, , 133-149.		3
115	New refinement of the crystal structure of $\text{Zn}(\text{NH}_3)_2\text{Cl}_2$ at 100 K. Acta Crystallographica Section E: Crystallographic Communications, 2019, 75, 1386-1388.	0.2	3
116	Diameter Dependence of the Elastic Modulus of CVD-Grown Carbon Nanotubes. AIP Conference Proceedings, 2005, , .	0.3	2
117	MnO nanoparticles as the cause of ferromagnetism in bulk dilute Mn-doped ZnO. Applied Physics Letters, 2016, 109, 252405.	1.5	2
118	Reflection amplifier based on graphene. , 2016, , .		1
119	Investigating Skyrmions Using Lorentz Transmission Electron Microscopy. Microscopy and Microanalysis, 2018, 24, 932-933.	0.2	1
120	Ferrimagnetic $\text{Fe}_2\text{O}_3$ magnetic structure in $\text{Cu}_2\text{O}$ . Physical Review B, 2020, 102, .	1.1	1
121	Direct Visualisation of Skyrmion Lattice Defect Alignment at Grain Boundaries. Nanoscale Research Letters, 2022, 17, 20.	3.1	1
122	Tuning Topological Spin Textures in Size-Tailored Chiral Magnet Insulator Particles. Journal of Physical Chemistry C, 2022, 126, 11855-11866.	1.5	1
123	Polymorphism in Micro-, Submicro-, and Nanocrystalline $\text{NaNbO}_3$ . ChemInform, 2006, 37, no.	0.1	0
124	Direct and selective synthesis of a wide range of carbon nanomaterials by CVD at CMOS compatible temperatures. , 2014, , .		0
125	Reflection amplifier based on graphene. , 2016, , .		0
126	$\text{Ba}_5(\text{IO}_6)_2$ : crystal structure evolution from room temperature to 80 K. Acta Crystallographica Section E: Crystallographic Communications, 2021, 77, 634-637.	0.2	0

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127	Optically Generated Electric Fields by Lithium Niobate Nanowires. , 2010, , .		0
128	Self-flux-grown Ba <sub>4</sub> Fe <sub>4</sub> ClO <sub>9.5</sub> crystals exhibiting structures with tunable modulation. CrystEngComm, 0, , .	1.3	0