Jean-Charles Arnault

List of Publications by Year
in descending order

44	1,878	236925 25	289244 40
papers	citations	h-index	g-index

46	46	46	2702
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photoluminescent Diamond Nanoparticles for Cell Labeling: Study of the Uptake Mechanism in Mammalian Cells. ACS Nano, 2009, 3, 3955-3962.	14.6	306
2	Surface properties of hydrogenated nanodiamonds: a chemical investigation. Physical Chemistry Chemical Physics, 2011, 13, 11517.	2.8	116
3	Early stages of surface graphitization on nanodiamond probed by x-ray photoelectron spectroscopy. Physical Review B, 2011, 84, .	3.2	116
4	Unusual Water Hydrogen Bond Network around Hydrogenated Nanodiamonds. Journal of Physical Chemistry C, 2017, 121, 5185-5194.	3.1	104
5	Electrostatic Grafting of Diamond Nanoparticles: A Versatile Route to Nanocrystalline Diamond Thin Films. ACS Applied Materials & Interfaces, 2009, 1, 2738-2746.	8.0	96
6	Large-area high-quality single crystal diamond. MRS Bulletin, 2014, 39, 504-510.	3.5	88
7	XPS study of ruthenium tris-bipyridine electrografted from diazonium salt derivative on microcrystalline boron doped diamond. Physical Chemistry Chemical Physics, 2009, 11, 11647.	2.8	85
8	Raman spectroscopy study of detonation nanodiamond. Diamond and Related Materials, 2018, 87, 248-260.	3.9	73
9	Surface chemical modifications and surface reactivity of nanodiamonds hydrogenated by CVD plasma. Physical Chemistry Chemical Physics, 2011, 13, 11481.	2.8	71
10	Surface transfer doping can mediate both colloidal stability and self-assembly of nanodiamonds. Nanoscale, 2013, 5, 8958.	5.6	65
11	Impairing the radioresistance of cancer cells by hydrogenated nanodiamonds. Biomaterials, 2015, 61, 290-298.	11.4	62
12	Oxygen hole doping of nanodiamond. Nanoscale, 2012, 4, 6792.	5.6	61
13	Etching mechanism of diamond by Ni nanoparticles for fabrication of nanopores. Carbon, 2013, 59, 448-456.	10.3	55
14	Plasma hydrogenated cationic detonation nanodiamonds efficiently deliver to human cells in culture functional siRNA targeting the Ewing sarcoma junction oncogene. Biomaterials, 2015, 45, 93-98.	11.4	49
15	Surface Modifications of Detonation Nanodiamonds Probed by Multiwavelength Raman Spectroscopy. Journal of Physical Chemistry C, 2014, 118, 23415-23425.	3.1	46
16	Nanoparticles Assume Electrical Potential According to Substrate, Size, and Surface Termination. Langmuir, 2013, 29, 1634-1641.	3.5	41
17	Surface Area of Carbon Nanoparticles: A Dose Metric for a More Realistic Ecotoxicological Assessment. Nano Letters, 2016, 16, 3514-3518.	9.1	39
18	Synchrotron Bragg diffraction imaging characterization of synthetic diamond crystals for optical and electronic power device applications. Journal of Applied Crystallography, 2017, 50, 561-569.	4.5	39

#	ARTICLE	IF	CITATIONS
19	Chemical Vapor Deposition Singleâ€Crystal Diamond: A Review. Physica Status Solidi - Rapid Research Letters, 2022, 16, 2100354.	2.4	36
20	Laser heating versus phonon confinement effect in the Raman spectra of diamond nanoparticles. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	30
21	Tritium labeling of detonation nanodiamonds. Chemical Communications, 2014, 50, 2916-2918.	4.1	29
22	HIGHLY ORIENTED DIAMOND FILMS ON HETEROSUBSTRATES: CURRENT STATE OF THE ART AND REMAINING CHALLENGES. Surface Review and Letters, 2003, 10, 127-146.	1.1	27
23	Electronic and physico-chemical properties of nanometric boron delta-doped diamond structures. Journal of Applied Physics, 2014, 116, 083702.	2.5	26
24	Epitaxy of iridium on SrTiO3/Si (001): A promising scalable substrate for diamond heteroepitaxy. Diamond and Related Materials, 2016, 66, 67-76.	3.9	26
25	Hydroxyl radical production induced by plasma hydrogenated nanodiamonds under X-ray irradiation. Chemical Communications, 2017, 53, 1237-1240.	4.1	25
26	Hydrogen plasma treated nanodiamonds lead to an overproduction of hydroxyl radicals and solvated electrons in solution under ionizing radiation. Carbon, 2020, 162, 510-518.	10.3	21
27	Delivery of siRNA to Ewing Sarcoma Tumor Xenografted on Mice, Using Hydrogenated Detonation Nanodiamonds: Treatment Efficacy and Tissue Distribution. Nanomaterials, 2020, 10, 553.	4.1	20
28	Surface Science Contribution to the BEN Control on Si(100) and 3Câ€SiC(100): Towards Ultrathin Nanocrystalline Diamond Films. Chemical Vapor Deposition, 2008, 14, 187-195.	1.3	17
29	Dislocation density reduction using overgrowth on hole arrays made in heteroepitaxial diamond substrates. Applied Physics Letters, 2021, 118, .	3.3	16
30	Combining nanostructuration with boron doping to alter sub band gap acceptor states in diamond materials. Journal of Materials Chemistry A, 2018, 6, 16645-16654.	10.3	14
31	Using hydrogen isotope incorporation as a tool to unravel the surfaces of hydrogen-treated nanodiamonds. Nanoscale, 2019, 11, 8027-8036.	5.6	12
32	Surface potential of diamond and gold nanoparticles can be locally switched by surrounding materials or applied voltage. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	10
33	Electrostatic Self-Assembly of Diamond Nanoparticles onto Al- and N-Polar Sputtered Aluminum Nitride Surfaces. Nanomaterials, 2016, 6, 217.	4.1	10
34	Surface graphitization of ozone-treated detonation nanodiamonds. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2739-2743.	1.8	9
35	Photoluminescence of nanodiamonds influenced by charge transfer from silicon and metal substrates. Diamond and Related Materials, 2016, 63, 91-96.	3.9	9
36	Encapsulated nanodiamonds in smart microgels toward self-assembled diamond nanoarrays. Diamond and Related Materials, 2013, 33, 32-37.	3.9	8

#	Article	IF	Citations
37	Fluorescence and Physico-Chemical Properties of Hydrogenated Detonation Nanodiamonds. Journal of Carbon Research, 2020, 6, 7.	2.7	8
38	Diamond electrodes for trace alpha pollutant sequestration via covalent grafting of nitrilotriacetic acid (NTA) ligand. Electrochimica Acta, 2014, 136, 430-434.	5.2	7
39	New Insights into the Reactivity of Detonation Nanodiamonds during the First Stages of Graphitization. Nanomaterials, 2021, 11, 2671.	4.1	5
40	Impact of Nitrogen, Boron and Phosphorus Impurities on the Electronic Structure of Diamond Probed by X-ray Spectroscopies. Journal of Carbon Research, 2021, 7, 28.	2.7	1
41	Switching polarity of oxidized detonation diamond nanoparticles on substrates. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2095-2099.	1.8	0
42	Visible Light Photodiodes and Photovoltages from Detonation Nanodiamonds. MRS Advances, 2016, 1, 971-975.	0.9	0
43	Nanodiamonds: From synthesis to applications. , 2021, , 209-246.		0
44	(Invited) Nanodiamonds and Bioapplications. ECS Meeting Abstracts, 2021, MA2021-01, 504-504.	0.0	0