Maria Antonia herrero

List of Publications by Year
in descending order

98 papers	8,214 citations	50276 46 h-index	45317 90 g-index
106 all docs	106 docs citations	106 times ranked	11771 citing authors

#	Article	IF	Citations
1	Nanocomposite Hydrogels: 3D Polymerâ€“Nanoparticle Synergies for On-Demand Drug Delivery. ACS Nano, 2015, 9, 4686-4697.	14.6	624
2	Nonthermal Microwave Effects Revisited:â€‰ On the Importance of Internal Temperature Monitoring and Agitation in Microwave Chemistry. Journal of Organic Chemistry, 2008, 73, 36-47.	3.2	482
3	Classification Framework for Grapheneâ€Based Materials. Angewandte Chemie - International Edition, 2014, 53, 7714-7718.	13.8	369
4	Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.	4.4	333
5	Few-layer graphenes from ball-milling of graphite with melamine. Chemical Communications, 2011, 47, 10936.	4.1	299
6	Carbon Nanotubes and Microwaves: Interactions, Responses, and Applications. ACS Nano, 2009, 3, 3819-3824.	14.6	270
7	Exfoliation of Graphite with Triazine Derivatives under Ball-Milling Conditions: Preparation of Few-Layer Graphene via Selective Noncovalent Interactions. ACS Nano, 2014, 8, 563-571.	14.6	241
8	Organic Functionalization of Graphene in Dispersions. Accounts of Chemical Research, 2013, 46, 138-148.	15.6	229
9	Translocation mechanisms of chemically functionalised carbon nanotubes across plasma membranes. Biomaterials, 2012, 33, 3334-3343.	11.4	224
10	Functional motor recovery from brain ischemic insult by carbon nanotube-mediated siRNA silencing. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10952-10957.	7.1	217
11	Dispersibilityâ€Dependent Biodegradation of Graphene Oxide by Myeloperoxidase. Small, 2015, 11, 3985-3994.	10.0	215
12	Purification of HiPCO Carbon Nanotubes via Organic Functionalization. Journal of the American Chemical Society, 2002, 124, 14318-14319.	13.7	210
13	Graphene-Based Interfaces Do Not Alter Target Nerve Cells. ACS Nano, 2016, 10, 615-623.	14.6	208
14	Dynamic Imaging of Functionalized Multiâ€Walled Carbon Nanotube Systemic Circulation and Urinary Excretion. Advanced Materials, 2008, 20, 225-230.	21.0	196
15	Single-Wall Carbon Nanotubeâ€“Ferrocene Nanohybrids: Observing Intramolecular Electron Transfer in Functionalized SWNTs. Angewandte Chemie - International Edition, 2003, 42, 4206-4209.	13.8	188
16	Carbonâ€Nanotube Shape and Individualization Critical for Renal Excretion. Small, 2008, 4, 1130-1132.	10.0	172
17	Synthesis and Characterization of a Carbon Nanotubeâ^'Dendron Series for Efficient siRNA Delivery. Journal of the American Chemical Society, 2009, 131, 9843-9848.	13.7	168
18	Microwave-Induced Multiple Functionalization of Carbon Nanotubes. Journal of the American Chemical Society, 2008, 130, 8094-8100.	13.7	157

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19	Antitumor Activity and Prolonged Survival by Carbonâ€Nanotubeâ€Mediated Therapeutic siRNA Silencing in a Human Lung Xenograft Model. Small, 2009, 5, 1176-1185.	10.0	153
20	Asbestosâ€like Pathogenicity of Long Carbon Nanotubes Alleviated by Chemical Functionalization. Angewandte Chemie - International Edition, 2013, 52, 2274-2278.	13.8	153
21	Tissue histology and physiology following intravenous administration of different types of functionalized multiwalled carbon nanotubes. Nanomedicine, 2008, 3, 149-161.	3.3	149
22	Differential cytotoxic effects of graphene and graphene oxide on skin keratinocytes. Scientific Reports, 2017, 7, 40572.	3.3	141
23	Novel Versatile Fullerene Synthons. Journal of Organic Chemistry, 2001, 66, 4915-4920.	3.2	136
24	Graphene Oxide Nanosheets Reshape Synaptic Function in Cultured Brain Networks. ACS Nano, 2016, 10, 4459-4471.	14.6	133
25	Reversible Microwave-Assisted Cycloaddition of Aziridines to Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 14580-14581.	13.7	115
26	Degree of Chemical Functionalization of Carbon Nanotubes Determines Tissue Distribution and Excretion Profile. Angewandte Chemie - International Edition, 2012, 51, 6389-6393.	13.8	109
27	In vivo degradation of functionalized carbon nanotubes after stereotactic administration in the brain cortex. Nanomedicine, 2012, 7, 1485-1494.	3.3	104
28	Graphene and graphene oxide induce ROS production in human HaCaT skin keratinocytes: the role of xanthine oxidase and NADH dehydrogenase. Nanoscale, 2018, 10, 11820-11830.	5.6	90
29	Graphene Improves the Biocompatibility of Polyacrylamide Hydrogels: 3D Polymeric Scaffolds for Neuronal Growth. Scientific Reports, 2017, 7, 10942.	3.3	87
30	Hybrid materials based on Pd nanoparticles on carbon nanostructures for environmentally benign Câ€“C coupling chemistry. Nanoscale, 2010, 2, 1390.	5.6	86
31	Solvent-Free Thermal and Microwave-Assisted [3 + 2] Cycloadditions between Stabilized Azomethine Ylides and Nitrostyrenes. An Experimental and Theoretical Study. Journal of Organic Chemistry, 2007, 72, 4313-4322.	3.2	85
32	Detection of Endotoxin Contamination of Graphene Based Materials Using the TNF-Î± Expression Test and Guidelines for Endotoxin-Free Graphene Oxide Production. PLoS ONE, 2016, 11, e0166816.	2.5	84
33	Non-conventional methods and media for the activation and manipulation of carbon nanoforms. Chemical Society Reviews, 2014, 43, 58-69.	38.1	76
34	Selective suspension of single layer graphene mechanochemically exfoliated from carbon nanofibres. Nano Research, 2014, 7, 963-972.	10.4	73
35	Enhanced cellular internalization and gene silencing with a series of cationic dendronâ€multiwalled carbon nanotube:siRNA complexes. FASEB Journal, 2010, 24, 4354-4365.	0.5	71
36	Green and chemoselective oxidation of sulfides with sodium perborate and sodium percarbonate: nucleophilic and electrophilic character of the oxidation system. Green Chemistry, 2007, 9, 331-336.	9.0	70

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37	Production of ready-to-use few-layer graphene in aqueous suspensions. Nature Protocols, 2018, 13, 495-506.	12.0	62
38	Ballâ€Milling Modification of Singleâ€Walled Carbon Nanotubes: Purification, Cutting, and Functionalization. Small, 2011, 7, 665-674.	10.0	60
39	Microwave-assisted purification of HIPCO carbon nanotubes. Chemical Communications, 2002, , 2308-2309.	4.1	59
40	Gold Dendrimer Encapsulated Nanoparticles as Labeling Agents for Multiwalled Carbon Nanotubes. ACS Nano, 2010, 4, 905-912.	14.6	59
41	Fewâ€Layer Graphene Kills Selectively Tumor Cells from Myelomonocytic Leukemia Patients. Angewandte Chemie - International Edition, 2017, 56, 3014-3019.	13.8	59
42	Carbon nanohorns functionalized with polyamidoamine dendrimers as efficient biocarrier materials for gene therapy. Carbon, 2012, 50, 2832-2844.	10.3	58
43	Sweet graphene: exfoliation of graphite and preparation of glucose-graphene cocrystals through mechanochemical treatments. Green Chemistry, 2018, 20, 3581-3592.	9.0	56
44	Smart Hybrid Graphene Hydrogels: A Study of the Different Responses to Mechanical Stretching Stimulus. ACS Applied Materials & Interfaces, 2018, 10, 1987-1995.	8.0	53
45	Graphene Quantum Dotâ€“Aerogel: From Nanoscopic to Macroscopic Fluorescent Materials. Sensing Polyaromatic Compounds in Water. ACS Applied Materials & Interfaces, 2018, 10, 18192-18201.	8.0	48
46	Microwave-Assisted Reactions in Heterocyclic Compounds with Applications in Medicinal and Supramolecular Chemistry. Combinatorial Chemistry and High Throughput Screening, 2007, 10, 877-902.	1.1	47
47	Efficient functionalization of carbon nanohorns via microwave irradiation. Journal of Materials Chemistry, 2009, 19, 4407.	6.7	46
48	Carbon Nanohorns as Integrative Materials for Efficient Dyeâ€Sensitized Solar Cells. Advanced Materials, 2013, 25, 6513-6518.	21.0	46
49	Enhanced docetaxel-mediated cytotoxicity in human prostate cancer cells through knockdown of cofilin-1 by carbon nanohorn delivered siRNA. Biomaterials, 2012, 33, 8152-8159.	11.4	45
50	Skin irritation potential of graphene-based materials using a non-animal test. Nanoscale, 2020, 12, 610-622.	5.6	42
51	Concentration Gradientâ€Based Soft Robotics: Hydrogels Out of Water. Advanced Functional Materials, 2020, 30, 2004417.	14.9	35
52	An Atomâ€Economical Approach to Functionalized Singleâ€Walled Carbon Nanotubes: Reaction with Disulfides. Angewandte Chemie - International Edition, 2013, 52, 6480-6483.	13.8	33
53	Conjugation with carbon nanotubes improves the performance of mesoporous silicon as Li-ion battery anode. Scientific Reports, 2020, 10, 5589.	3.3	31
54	Graphene, other carbon nanomaterials and the immune system: toward nanoimmunity-by-design. JPhys Materials, 2020, 3, 034009.	4.2	29

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55	Charge Transfer Events in Semiconducting Single-Wall Carbon Nanotubes. Journal of the American Chemical Society, 2011, 133, 18696-18706.	13.7	28
56	Versatile microwave-induced reactions for the multiple functionalization of carbon nanotubes. Organic and Biomolecular Chemistry, 2010, 8, 1936.	2.8	26
57	Graphene hybrid materials? The role of graphene materials in the final structure of hydrogels. Nanoscale, 2019, 11, 4822-4830.	5.6	26
58	Autonomous self-healing hydrogel with anti-drying properties and applications in soft robotics. Applied Materials Today, 2020, 21, 100806.	4.3	23
59	Physically Cross-Linked Hydrogel Based on Phenyl-1,3,5-triazine: Soft Scaffold with Aggregation-Induced Emission. ACS Macro Letters, 2019, 8, 1391-1395.	4.8	22
60	Recent Advances in the Covalent Functionalization of Carbon Nanotubes. Molecular Crystals and Liquid Crystals, 2008, 483, 21-32.	0.9	21
61	Targeted killing of prostate cancer cells using antibodyâ€“drug conjugated carbon nanohorns. Journal of Materials Chemistry B, 2017, 5, 8821-8832.	5.8	20
62	Reproducibility and Scalability of Solvent-Free Microwave-Assisted Reactions:From Domestic Ovens to Controllable Parallel Applications. Combinatorial Chemistry and High Throughput Screening, 2007, 10, 163-169.	1.1	19
63	Carbon nanohorns as alternative gene delivery vectors. RSC Advances, 2014, 4, 27315.	3.6	19
64	Functionalization of carbon nanotubes for applications in materials science and nanomedicine. Pure and Applied Chemistry, 2010, 82, 853-861.	1.9	18
65	Stability of melamine-exfoliated graphene in aqueous media: quantum-mechanical insights at the nanoscale. Physical Chemistry Chemical Physics, 2016, 18, 22203-22209.	2.8	16
66	Highly Conductive Redox Proteinâ€“Carbon Nanotube Complex for Biosensing Applications. Advanced Functional Materials, 2011, 21, 153-157.	14.9	15
67	Sublethal exposure of small few-layer graphene promotes metabolic alterations in human skin cells. Scientific Reports, 2020, 10, 18407.	3.3	15
68	Functionalised carbon nanotubes: high biocompatibility with lack of toxicity. International Journal of Nanotechnology, 2011, 8, 885.	0.2	14
69	Advantageous Microwave-Assisted Suzuki Polycondensation for the Synthesis of Aniline-Fluorene Alternate Copolymers as Molecular Model with Solvent Sensing Properties. Polymers, 2018, 10, 215.	4.5	14
70	Beyond graphene oxide acidity: Novel insights into graphene related materials effects on the sexual reproduction of seed plants. Journal of Hazardous Materials, 2020, 393, 122380.	12.4	14
71	Synthesis of dendrimerâ€“carbon nanotube conjugates. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1402-1407.	1.8	12
72	Influence of Polarity on the Scalability and Reproducibility of Solvent-Free Microwave-Assisted Reactions. Combinatorial Chemistry and High Throughput Screening, 2011, 14, 109-116.	1.1	12

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73	Graphene-based materials do not impair physiology, gene expression and growth dynamics of the aeroterrestrial microalga Trebouxia gelatinosa. Nanotoxicology, 2019, 13, 492-509.	3.0	12
74	Enhancing stereochemical diversity by means of microwave irradiation in the absence of solvent: Synthesis of highly substituted nitroproline esters via 1,3-dipolar reactions. Molecular Diversity, 2003, 7, 175-180.	3.9	11
75	Stimuli-responsive graphene-based hydrogel driven by disruption of triazine hydrophobic interactions. Nanoscale, 2020, 12, 7072-7081.	5.6	11
76	The lipid composition of few layers graphene and graphene oxide biomolecular corona. Carbon, 2021, 185, 591-598.	10.3	11
77	Microwave-Enhanced Reactivity of Non-Activated Dienophiles Towards Pyrazineo-Quinodimethanes. Synlett, 2002, 2002, 2037-2038.	1.8	10
78	Carbon Nanotubes: Synthesis, Structure, Functionalization, and Characterization. Topics in Current Chemistry, 2013, 350, 65-109.	4.0	10
79	Fewâ€Layer Graphene Kills Selectively Tumor Cells from Myelomonocytic Leukemia Patients. Angewandte Chemie, 2017, 129, 3060-3065.	2.0	9
80	Microwave Irradiation as an Efficient Tool for the Generation of N-Heterocyclico-Quinodimethanes: Synthesis of Polyheterocyclic Compounds by Diels-Alder Reactions. Synlett, 2006, 2006, 0579-0582.	1.8	8
81	Synthesis and Characterization of Highly Water-Soluble Dendrofulleropyrrolidine Bisadducts with DNA Binding Activity. Organic Letters, 2012, 14, 4450-4453.	4.6	8
82	Green synthesis of luminescent blue emitters based on bistriazines with naphthalene as a Ï€-conjugated spacer. Dyes and Pigments, 2016, 124, 203-209.	3.7	7
83	Direct Microwave Synthesis ofN,Nâ€²-Diacylhydrazines and Boc-Protected Hydrazides by in situ Carbonylations under Air. Synlett, 2004, 2004, 2335-2338.	1.8	5
84	An Atomâ€Economical Approach to Functionalized Singleâ€Walled Carbon Nanotubes: Reaction with Disulfides. Angewandte Chemie, 2013, 125, 6608-6611.	2.0	5
85	Modulation of waveguide behaviour of an ICT 2H-Benzo[d][1,2,3]Triazole derivative with graphene. Organic Electronics, 2019, 68, 1-8.	2.6	5
86	Effects of Few-Layer Graphene on the Sexual Reproduction of Seed Plants: An In Vivo Study with Cucurbita pepo L.. Nanomaterials, 2020, 10, 1877.	4.1	5
87	Is airborne graphene oxide a possible hazard for the sexual reproduction of wind-pollinated plants?. Science of the Total Environment, 2022, 830, 154625.	8.0	5
88	Design of Assembled Systems Based on Conjugated Polyphenylene Derivatives and Carbon Nanohorns. Chemistry - A European Journal, 2016, 22, 11643-11651.	3.3	4
89	Carbon Nanohorns Modified with Conjugated Terthienyl/Terthiophene Structures: Additives to Enhance the Performance of Dye-Sensitized Solar Cells. Nanomaterials, 2017, 7, 294.	4.1	4
90	Autonomous self-healing pneumatic McKibben muscle based on a new hydrogel material. , 2020, , .		4

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91	Molecular adsorption of iminotriazine derivatives on graphene. JPhys Materials, 2020, 3, 034011.	4.2	4
92	A new soft fingertip based on electroactive hydrogels. , 2019, , .		3
93	Triazineâ€Carbon Nanotubes: New Platforms for the Design of Flavin Receptors. Chemistry - A European Journal, 2016, 22, 8879-8888.	3.3	2
94	Gold nanoparticles as analytical tools for the quantification of small quantities of triazine derivatives anchored on graphene in water dispersions. RSC Advances, 2017, 7, 21982-21987.	3.6	2
95	Microwave-assisted functionalization of carbon nanohorns with oligothiophene units with SERS activity. Chemical Communications, 2020, 56, 8948-8951.	4.1	2
96	Quasi-Static FEA Model for a Multi-Material Soft Pneumatic Actuator in SOFA. IEEE Robotics and Automation Letters, 2022, 7, 7391-7398.	5.1	2
97	Hydrogel-based soft pneumatic bending actuator with self-healing and proprioception capabilities. , 2022, , .		1
98	A novel hydrogel-based connection mechanism for soft modular robots. , 2022, , .		0