Ester VÃ¡zquez

List of Publications by Year
in descending order

119 papers	7,974 citations	61945 43 h-index	49868 87 g-index
127 all docs	127 docs citations	127 times ranked	11373 citing authors

#	Article	IF	Citations
1	Nanocomposite Hydrogels: 3D Polymerâ€"Nanoparticle Synergies for On-Demand Drug Delivery. ACS Nano, 2015, 9, 4686-4697.	7.3	624
2	Promises, facts and challenges for graphene in biomedical applications. Chemical Society Reviews, 2017, 46, 4400-4416.	18.7	564
3	Safety Assessment of Graphene-Based Materials: Focus on Human Health and the Environment. ACS Nano, 2018, 12, 10582-10620.	7.3	438
4	Classification Framework for Grapheneâ€Based Materials. Angewandte Chemie - International Edition, 2014, 53, 7714-7718.	7.2	369
5	Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.	2.0	333
6	Few-layer graphenes from ball-milling of graphite with melamine. Chemical Communications, 2011, 47, 10936.	2.2	299
7	Carbon Nanotubes and Microwaves: Interactions, Responses, and Applications. ACS Nano, 2009, 3, 3819-3824.	7.3	270
8	Exfoliation of Graphite with Triazine Derivatives under Ball-Milling Conditions: Preparation of Few-Layer Graphene <i>via</i> Selective Noncovalent Interactions. ACS Nano, 2014, 8, 563-571.	7.3	241
9	Organic Functionalization of Graphene in Dispersions. Accounts of Chemical Research, 2013, 46, 138-148.	7.6	229
10	Dispersibilityâ€Dependent Biodegradation of Graphene Oxide by Myeloperoxidase. Small, 2015, 11, 3985-3994.	5.2	215
11	Purification of HiPCO Carbon Nanotubes via Organic Functionalization. Journal of the American Chemical Society, 2002, 124, 14318-14319.	6.6	210
12	Graphene-Based Interfaces Do Not Alter Target Nerve Cells. ACS Nano, 2016, 10, 615-623.	7.3	208
13	Single-Wall Carbon Nanotubeâ€"Ferrocene Nanohybrids: Observing Intramolecular Electron Transfer in Functionalized SWNTs. Angewandte Chemie - International Edition, 2003, 42, 4206-4209.	7.2	188
14	Microwave-Induced Multiple Functionalization of Carbon Nanotubes. Journal of the American Chemical Society, 2008, 130, 8094-8100.	6.6	157
15	Differential cytotoxic effects of graphene and graphene oxide on skin keratinocytes. Scientific Reports, 2017, 7, 40572.	1.6	141
16	Novel Versatile Fullerene Synthons. Journal of Organic Chemistry, 2001, 66, 4915-4920.	1.7	136
17	Degradation of Singleâ€Layer and Fewâ€Layer Graphene by Neutrophil Myeloperoxidase. Angewandte Chemie - International Edition, 2018, 57, 11722-11727.	7.2	135
18	Grapheneâ€Based Electroresponsive Scaffolds as Polymeric Implants for Onâ€Demand Drug Delivery. Advanced Healthcare Materials, 2014, 3, 1334-1343.	3.9	134

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19	Graphene Oxide Nanosheets Reshape Synaptic Function in Cultured Brain Networks. ACS Nano, 2016, 10, 4459-4471.	7.3	133
20	Graphene Oxide Nanosheets Disrupt Lipid Composition, Ca²⁺ Homeostasis, and Synaptic Transmission in Primary Cortical Neurons. ACS Nano, 2016, 10, 7154-7171.	7.3	124
21	Reversible Microwave-Assisted Cycloaddition of Aziridines to Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 14580-14581.	6.6	115
22	Liquid-crystalline fullereneâ€“ferrocene dyads. Journal of Materials Chemistry, 2004, 14, 1266-1272.	6.7	90
23	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.	2.8	90
24	Functionalised single wall carbon nanotubes/polypyrrole composites for the preparation of amperometric glucose biosensors. Journal of Materials Chemistry, 2004, 14, 807-810.	6.7	89
25	Graphene Improves the Biocompatibility of Polyacrylamide Hydrogels: 3D Polymeric Scaffolds for Neuronal Growth. Scientific Reports, 2017, 7, 10942.	1.6	87
26	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.	1.1	84
27	Non-conventional methods and media for the activation and manipulation of carbon nanoforms. Chemical Society Reviews, 2014, 43, 58-69.	18.7	76
28	Selective suspension of single layer graphene mechanochemically exfoliated from carbon nanofibres. Nano Research, 2014, 7, 963-972.	5.8	73
29	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.	4.6	70
30	Use of Microwave Irradiation and Solid Acid Catalysts in an Enhanced and Environmentally Friendly Synthesis of Coumarin Derivatives. Synlett, 1999, 1999, 608-610.	1.0	68
31	Production of ready-to-use few-layer graphene in aqueous suspensions. Nature Protocols, 2018, 13, 495-506.	5.5	62
32	Ballâ€Milling Modification of Singleâ€Walled Carbon Nanotubes: Purification, Cutting, and Functionalization. Small, 2011, 7, 665-674.	5.2	60
33	Microwave-assisted purification of HIPCO carbon nanotubes. Chemical Communications, 2002, , 2308-2309.	2.2	59
34	Fewâ€Layer Graphene Kills Selectively Tumor Cells from Myelomonocytic Leukemia Patients. Angewandte Chemie - International Edition, 2017, 56, 3014-3019.	7.2	59
35	Carbon nanohorns functionalized with polyamidoamine dendrimers as efficient biocarrier materials for gene therapy. Carbon, 2012, 50, 2832-2844.	5.4	58
36	Sweet graphene: exfoliation of graphite and preparation of glucose-graphene cocrystals through mechanochemical treatments. Green Chemistry, 2018, 20, 3581-3592.	4.6	56

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37	Smart Hybrid Graphene Hydrogels: A Study of the Different Responses to Mechanical Stretching Stimulus. ACS Applied Materials & Interfaces, 2018, 10, 1987-1995.	4.0	53
38	Graphene Quantum Dotâ€"Aerogel: From Nanoscopic to Macroscopic Fluorescent Materials. Sensing Polyaromatic Compounds in Water. ACS Applied Materials & Interfaces, 2018, 10, 18192-18201.	4.0	48
39	Microwave-Assisted Reactions in Heterocyclic Compounds with Applications in Medicinal and Supramolecular Chemistry. Combinatorial Chemistry and High Throughput Screening, 2007, 10, 877-902.	0.6	47
40	Graphene Oxide Upregulates the Homeostatic Functions of Primary Astrocytes and Modulates Astrocyte-to-Neuron Communication. Nano Letters, 2018, 18, 5827-5838.	4.5	47
41	Efficient functionalization of carbon nanohorns via microwave irradiation. Journal of Materials Chemistry, 2009, 19, 4407.	6.7	46
42	Carbon Nanohorns as Integrative Materials for Efficient Dyeâ€Sensitized Solar Cells. Advanced Materials, 2013, 25, 6513-6518.	11.1	46
43	Production and stability of mechanochemically exfoliated graphene in water and culture media. Nanoscale, 2016, 8, 14548-14555.	2.8	46
44	Enhanced docetaxel-mediated cytotoxicity in human prostate cancer cells through knockdown of cofilin-1 by carbon nanohorn delivered siRNA. Biomaterials, 2012, 33, 8152-8159.	5.7	45
45	Three-Dimensional Conductive Scaffolds as Neural Prostheses Based on Carbon Nanotubes and Polypyrrole. ACS Applied Materials & Interfaces, 2018, 10, 43904-43914.	4.0	45
46	Differential effects of graphene materials on the metabolism and function of human skin cells. Nanoscale, 2018, 10, 11604-11615.	2.8	44
47	Biotransformation and Biological Interaction of Graphene and Graphene Oxide during Simulated Oral Ingestion. Small, 2018, 14, e1800227.	5.2	42
48	Skin irritation potential of graphene-based materials using a non-animal test. Nanoscale, 2020, 12, 610-622.	2.8	42
49	Heck Reactions under Microwave Irradiation in Solvent-Free Conditions. Synlett, 1997, 1997, 269-270.	1.0	41
50	Surface Area of Carbon Nanoparticles: A Dose Metric for a More Realistic Ecotoxicological Assessment. Nano Letters, 2016, 16, 3514-3518.	4.5	39
51	Interaction of graphene-related materials with human intestinal cells: an in vitro approach. Nanoscale, 2016, 8, 8749-8760.	2.8	37
52	An Increase in Membrane Cholesterol by Graphene Oxide Disrupts Calcium Homeostasis in Primary Astrocytes. Small, 2019, 15, e1900147.	5.2	37
53	Preparation of Î±- and Î²-substituted alanine derivatives by Î±-amidoalkylation or Michael addition reactions under heterogeneous catalysis assisted by microwave irradiation. Tetrahedron, 2001, 57, 5421-5428.	1.0	36
54	Anion recognition by functionalized single wall carbon nanotubes. Chemical Communications, 2003, , 2576-2577.	2.2	35

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55	Concentration Gradientâ€Based Soft Robotics: Hydrogels Out of Water. Advanced Functional Materials, 2020, 30, 2004417.	7.8	35
56	Liquid-Crystalline Bisadducts of [60]Fullerene. Journal of Organic Chemistry, 2006, 71, 7603-7610.	1.7	33
57	An Atomâ€Economical Approach to Functionalized Singleâ€Walled Carbon Nanotubes: Reaction with Disulfides. Angewandte Chemie - International Edition, 2013, 52, 6480-6483.	7.2	33
58	Tandem Dielsâˆ'Alder Aromatization Reactions of Furans under Unconventional Reaction Conditions âˆ' Experimental and Theoretical Studies. European Journal of Organic Chemistry, 2001, 2001, 2891.	1.2	32
59	Photophysical, electrochemical, and mesomorphic properties of a liquid-crystalline [60]fullereneâ€"peralkylated ferrocene dyad. Journal of Materials Chemistry, 2008, 18, 1504.	6.7	32
60	Tailored Methodology Based on Vapor Phase Polymerization to Manufacture PEDOT/CNT Scaffolds for Tissue Engineering. ACS Biomaterials Science and Engineering, 2020, 6, 1269-1278.	2.6	31
61	Conjugation with carbon nanotubes improves the performance of mesoporous silicon as Li-ion battery anode. Scientific Reports, 2020, 10, 5589.	1.6	31
62	Graphene, other carbon nanomaterials and the immune system: toward nanoimmunity-by-design. JPhys Materials, 2020, 3, 034009.	1.8	29
63	Synthesis and Molecular Modeling Studies of Fullereneâˆ'5,6,7-Trimethoxyindoleâˆ'Oligonucleotide Conjugates as Possible Probes for Study of Photochemical Reactions in DNA Triple Helices. European Journal of Organic Chemistry, 2002, 2002, 405-413.	1.2	26
64	Versatile microwave-induced reactions for the multiple functionalization of carbon nanotubes. Organic and Biomolecular Chemistry, 2010, 8, 1936.	1.5	26
65	Graphene hybrid materials? The role of graphene materials in the final structure of hydrogels. Nanoscale, 2019, 11, 4822-4830.	2.8	26
66	Autonomous self-healing hydrogel with anti-drying properties and applications in soft robotics. Applied Materials Today, 2020, 21, 100806.	2.3	23
67	Physically Cross-Linked Hydrogel Based on Phenyl-1,3,5-triazine: Soft Scaffold with Aggregation-Induced Emission. ACS Macro Letters, 2019, 8, 1391-1395.	2.3	22
68	Repeated exposure to aerosolized graphene oxide mediates autophagy inhibition and inflammation in a three-dimensional human airway model. Materials Today Bio, 2020, 6, 100050.	2.6	22
69	Mechanochemical preparation of piezoelectric nanomaterials: BN, MoS₂ and WS₂ 2D materials and their glycine-cocrystals. Nanoscale Horizons, 2020, 5, 331-335.	4.1	21
70	Targeted killing of prostate cancer cells using antibodyâ€"drug conjugated carbon nanohorns. Journal of Materials Chemistry B, 2017, 5, 8821-8832.	2.9	20
71	Carbon nanohorns as alternative gene delivery vectors. RSC Advances, 2014, 4, 27315.	1.7	19
72	Synergy between Heterogeneous Catalysis and Microwave Irradiation in an Efficient One-Pot Synthesis of Benzene Derivatives via Ring-Opening of Diels-Alder Cycloadducts of Substituted Furans. Synlett, 2001, 2001, 0753-0756.	1.0	18

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73	An Efficient One-Pot Synthesis of Phenol Derivatives by Ring Opening and Rearrangement of Diels-Alder Cycloadducts of Substituted Furans Using Heterogeneous Catalysis and Microwave Irradiation. Synlett, 2004, 2004, 1259-1263.	1.0	18
74	Functionalization of carbon nanotubes for applications in materials science and nanomedicine. Pure and Applied Chemistry, 2010, 82, 853-861.	0.9	18
75	A dendritic fullereneâ€“porphyrin dyad. Photochemical and Photobiological Sciences, 2006, 5, 1137-1141.	1.6	17
76	Graphene environmental biodegradation: Wood degrading and saprotrophic fungi oxidize few-layer graphene. Journal of Hazardous Materials, 2021, 414, 125553.	6.5	17
77	Stability of melamine-exfoliated graphene in aqueous media: quantum-mechanical insights at the nanoscale. Physical Chemistry Chemical Physics, 2016, 18, 22203-22209.	1.3	16
78	Keratinocytes are capable of selectively sensing low amounts of graphene-based materials: Implications for cutaneous applications. Carbon, 2020, 159, 598-610.	5.4	16
79	Sublethal exposure of small few-layer graphene promotes metabolic alterations in human skin cells. Scientific Reports, 2020, 10, 18407.	1.6	15
80	Few Layer Graphene Does Not Affect Cellular Homeostasis of Mouse Macrophages. Nanomaterials, 2020, 10, 228.	1.9	15
81	Advantageous Microwave-Assisted Suzuki Polycondensation for the Synthesis of Aniline-Fluorene Alternate Copolymers as Molecular Model with Solvent Sensing Properties. Polymers, 2018, 10, 215.	2.0	14
82	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.	6.5	14
83	Impact of graphene oxide on human placental trophoblast viability, functionality and barrier integrity. 2D Materials, 2018, 5, 035014.	2.0	12
84	Graphene-based materials do not impair physiology, gene expression and growth dynamics of the aeroterrestrial microalga <i>Trebouxia gelatinosa</i>. Nanotoxicology, 2019, 13, 492-509.	1.6	12
85	Tuning Neuronal Circuit Formation in 3D Polymeric Scaffolds by Introducing Graphene at the Bio/Material Interface. Advanced Biology, 2020, 4, 1900233.	3.0	12
86	Stimuli-responsive graphene-based hydrogel driven by disruption of triazine hydrophobic interactions. Nanoscale, 2020, 12, 7072-7081.	2.8	11
87	The lipid composition of few layers graphene and graphene oxide biomolecular corona. Carbon, 2021, 185, 591-598.	5.4	11
88	Rapid and efficient testing of the toxicity of graphene-related materials in primary human lung cells. Scientific Reports, 2022, 12, 7664.	1.6	11
89	Design, synthesis and biological properties of fulleropyrrolidine derivatives as potential DNA photo-probes. Journal of Supramolecular Chemistry, 2002, 2, 327-334.	0.4	10
90	Carbon Nanotubes: Synthesis, Structure, Functionalization, and Characterization. Topics in Current Chemistry, 2013, 350, 65-109.	4.0	10

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91	Onâ€Demand Hydrophobic Drug Release Based on Microwaveâ€Responsive Graphene Hydrogel Scaffolds. Chemistry - A European Journal, 2020, 26, 17069-17080.	1.7	10
92	Fewâ€Layer Graphene Kills Selectively Tumor Cells from Myelomonocytic Leukemia Patients. Angewandte Chemie, 2017, 129, 3060-3065.	1.6	9
93	Degradation of Singleâ€Layer and Fewâ€Layer Graphene by Neutrophil Myeloperoxidase. Angewandte Chemie, 2018, 130, 11896-11901.	1.6	9
94	Experimental, Numerical, and Analytical Study on The Effect of Graphene Oxide in The Mechanical Properties of a Solvent-Free Reinforced Epoxy Resin. Polymers, 2019, 11, 2115.	2.0	9
95	Synthesis and Characterization of Highly Water-Soluble Dendrofulleropyrrolidine Bisadducts with DNA Binding Activity. Organic Letters, 2012, 14, 4450-4453.	2.4	8
96	Few layer graphene does not affect the function and the autophagic activity of primary lymphocytes. Nanoscale, 2019, 11, 10493-10503.	2.8	8
97	Partial Reversibility of the Cytotoxic Effect Induced by Graphene-Based Materials in Skin Keratinocytes. Nanomaterials, 2020, 10, 1602.	1.9	8
98	Eco-friendly mechanochemical synthesis of titania-graphene nanocomposites for pesticide photodegradation. Separation and Purification Technology, 2022, 289, 120638.	3.9	8
99	An Atomâ€Economical Approach to Functionalized Singleâ€Walled Carbon Nanotubes: Reaction with Disulfides. Angewandte Chemie, 2013, 125, 6608-6611.	1.6	5
100	Modulation of waveguide behaviour of an ICT 2H-Benzo[d][1,2,3]Triazole derivative with graphene. Organic Electronics, 2019, 68, 1-8.	1.4	5
101	Effects of Few-Layer Graphene on the Sexual Reproduction of Seed Plants: An In Vivo Study with Cucurbita pepo L.. Nanomaterials, 2020, 10, 1877.	1.9	5
102	Is airborne graphene oxide a possible hazard for the sexual reproduction of wind-pollinated plants?. Science of the Total Environment, 2022, 830, 154625.	3.9	5
103	Design of Assembled Systems Based on Conjugated Polyphenylene Derivatives and Carbon Nanohorns. Chemistry - A European Journal, 2016, 22, 11643-11651.	1.7	4
104	Carbon Nanohorns Modified with Conjugated Terthienyl/Terthiophene Structures: Additives to Enhance the Performance of Dye-Sensitized Solar Cells. Nanomaterials, 2017, 7, 294.	1.9	4
105	Molecular adsorption of iminotriazine derivatives on graphene. JPhys Materials, 2020, 3, 034011.	1.8	4
106	Signal conditioning circuit for gel strain sensors. Smart Materials and Structures, 2022, 31, 015020.	1.8	4
107	Synthesis and Spectroscopic Properties of Porphyrin Derivatives of C60. Molecular Crystals and Liquid Crystals, 2010, 521, 253-264.	0.4	3
108	A new soft fingertip based on electroactive hydrogels. , 2019, , .		3

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109	Subchronic Graphene Exposure Reshapes Skin Cell Metabolism. Journal of Proteome Research, 2022, 21, 1675-1685.	1.8	3
110	SERS-Based Methodology for the Quantification of Ultratrace Graphene Oxide in Water Samples. Environmental Science & Technology, 2022, 56, 9527-9535.	4.6	3
111	Triazineâ€Carbon Nanotubes: New Platforms for the Design of Flavin Receptors. Chemistry - A European Journal, 2016, 22, 8879-8888.	1.7	2
112	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.	1.7	2
113	Microwave-assisted functionalization of carbon nanohorns with oligothiophene units with SERS activity. Chemical Communications, 2020, 56, 8948-8951.	2.2	2
114	Quasi-Static FEA Model for a Multi-Material Soft Pneumatic Actuator in SOFA. IEEE Robotics and Automation Letters, 2022, 7, 7391-7398.	3.3	2
115	Hydrogel-based soft pneumatic bending actuator with self-healing and proprioception capabilities. , 2022, , .		1
116	An Efficient One-Pot Synthesis of Phenol Derivatives by Ring Opening and Rearrangement of Dielsâ€"Alder Cycloadducts of Substituted Furans Using Heterogeneous Catalysis and Microwave Irradiation.. ChemInform, 2004, 35, no.	0.1	0
117	Photoluminescence and Electro-Optic Kerr Effect in Porphyrin Derivatives of C60. Molecular Crystals and Liquid Crystals, 2010, 522, 191/[491]-202/[502].	0.4	0
118	Synergy between microwave irradiation and heterogeneous catalysis in an environmentally friendly self-condensation of hydroxybenzene derivatives. Arkivoc, 2009, 2010, 264-273.	0.3	0
119	A novel hydrogel-based connection mechanism for soft modular robots. , 2022, , .		0