

Antonio Esau Del Rio Castillo

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

3,813
citations

117571

34
h-index

155592

55
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all docs

59
docs citations

59
times ranked

6314
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersibility-Dependent Biodegradation of Graphene Oxide by Myeloperoxidase. <i>Small</i> , 2015, 11, 3985-3994.	5.2	215
2	MoS ₂ Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH ₃ NH ₃ PbI ₃ Perovskite Solar Cell with an Efficiency of over 20%. <i>ACS Nano</i> , 2018, 12, 10736-10754.	7.3	201
3	Graphene Interface Engineering for Perovskite Solar Modules: 12.6% Power Conversion Efficiency over 50 cm ² Active Area. <i>ACS Energy Letters</i> , 2017, 2, 279-287.	8.8	196
4	Ink-jet printing of graphene for flexible electronics: An environmentally-friendly approach. <i>Solid State Communications</i> , 2015, 224, 53-63.	0.9	187
5	Scalable Production of Graphene Inks via Wet-Jet Milling Exfoliation for Screen-Printed Micro-Supercapacitors. <i>Advanced Functional Materials</i> , 2019, 29, 1807659.	7.8	174
6	Graphene-Based Perovskite Solar Cells Exceed 18% Efficiency: A Stability Study. <i>ChemSusChem</i> , 2016, 9, 2609-2619.	3.6	163
7	Engineered MoSe ₂ -Based Heterostructures for Efficient Electrochemical Hydrogen Evolution Reaction. <i>Advanced Energy Materials</i> , 2018, 8, 1703212.	10.2	152
8	High-yield production of 2D crystals by wet-jet milling. <i>Materials Horizons</i> , 2018, 5, 890-904.	6.4	139
9	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. <i>Joule</i> , 2020, 4, 865-881.	11.7	125
10	Extending the Continuous Operating Lifetime of Perovskite Solar Cells with a Molybdenum Disulfide Hole Extraction Interlayer. <i>Advanced Energy Materials</i> , 2018, 8, 1702287.	10.2	121
11	Selective organic functionalization of graphene bulk or graphene edges. <i>Chemical Communications</i> , 2011, 47, 9330.	2.2	114
12	Solution-Processed Hybrid Graphene Flake/2H-MoS ₂ Quantum Dot Heterostructures for Efficient Electrochemical Hydrogen Evolution. <i>Chemistry of Materials</i> , 2017, 29, 5782-5786.	3.2	93
13	Exfoliation of Few-Layer Black Phosphorus in Low-Boiling-Point Solvents and Its Application in Li-Ion Batteries. <i>Chemistry of Materials</i> , 2018, 30, 506-516.	3.2	93
14	Size-Tuning of WSe ₂ Flakes for High Efficiency Inverted Organic Solar Cells. <i>ACS Nano</i> , 2017, 11, 3517-3531.	7.3	90
15	Liquid-Phase Exfoliated Indium Selenide Flakes and Their Application in Hydrogen Evolution Reaction. <i>Small</i> , 2018, 14, e1800749.	5.2	90
16	WS ₂ -Graphite Dual-Ion Batteries. <i>Nano Letters</i> , 2018, 18, 7155-7164.	4.5	88
17	Black phosphorus polycarbonate polymer composite for pulsed fibre lasers. <i>Applied Materials Today</i> , 2016, 4, 17-23.	2.3	87
18	Graphene-Based Electron Transport Layers in Perovskite Solar Cells: A Step-Up for an Efficient Carrier Collection. <i>Advanced Energy Materials</i> , 2017, 7, 1701349.	10.2	85

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19	Detection of Endotoxin Contamination of Graphene Based Materials Using the TNF- β Expression Test and Guidelines for Endotoxin-Free Graphene Oxide Production. <i>PLoS ONE</i> , 2016, 11, e0166816.	1.1	84
20	Binder-free graphene as an advanced anode for lithium batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6886-6895.	5.2	79
21	Selective suspension of single layer graphene mechanochemically exfoliated from carbon nanofibres. <i>Nano Research</i> , 2014, 7, 963-972.	5.8	73
22	Graphene-Induced Improvements of Perovskite Solar Cell Stability: Effects on Hot-Carriers. <i>Nano Letters</i> , 2019, 19, 684-691.	4.5	72
23	An anisotropic layer-by-layer carbon nanotube/boron nitride/rubber composite and its application in electromagnetic shielding. <i>Nanoscale</i> , 2020, 12, 7782-7791.	2.8	68
24	Doped MoSe_2 Nanoflakes/3d Metal Oxide-Hydr(Oxy)Oxides Hybrid Catalysts for pH-Universal Electrochemical Hydrogen Evolution Reaction. <i>Advanced Energy Materials</i> , 2018, 8, 1801764.	10.2	67
25	Integration of two-dimensional materials-based perovskite solar panels into a stand-alone solar farm. <i>Nature Energy</i> , 2022, 7, 597-607.	19.8	66
26	Scalable spray-coated graphene-based electrodes for high-power electrochemical double-layer capacitors operating over a wide range of temperature. <i>Energy Storage Materials</i> , 2021, 34, 1-11.	9.5	61
27	Thermal Stability and Anisotropic Sublimation of Two-Dimensional Colloidal Bi_2Te_3 and Bi_2Se_3 Nanocrystals. <i>Nano Letters</i> , 2016, 16, 4217-4223.	4.5	60
28	Few-layer MoS_2 flakes as a hole-selective layer for solution-processed hybrid organic hydrogen-evolving photocathodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4384-4396.	5.2	55
29	Few-layer graphene improves silicon performance in Li-ion battery anodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19306-19315.	5.2	54
30	Graphene Quantum Dot-Aerogel: From Nanoscopic to Macroscopic Fluorescent Materials. Sensing Polyaromatic Compounds in Water. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 18192-18201.	4.0	48
31	Effect of graphene nano-platelet morphology on the elastic modulus of soft and hard biopolymers. <i>Carbon</i> , 2016, 109, 331-339.	5.4	44
32	Biotransformation and Biological Interaction of Graphene and Graphene Oxide during Simulated Oral Ingestion. <i>Small</i> , 2018, 14, e1800227.	5.2	42
33	Cellulosic Graphene Biocomposites for Versatile High-Performance Flexible Electronic Applications. <i>Advanced Electronic Materials</i> , 2016, 2, 1600245.	2.6	39
34	High-Power Graphene-Carbon Nanotube Hybrid Supercapacitors. <i>ChemNanoMat</i> , 2017, 3, 436-446.	1.5	39
35	How much does size really matter? Exploring the limits of graphene as Li ion battery anode material. <i>Solid State Communications</i> , 2017, 251, 88-93.	0.9	36
36	Applications of supercritical fluids to enhance the dissolution behaviors of Furosemide by generation of microparticles and solid dispersions. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2012, 81, 131-141.	2.0	35

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37	Graphene-engineered automated sprayed mesoscopic structure for perovskite device scaling-up. 2D Materials, 2018, 5, 045034.	2.0	34
38	Graphene-Based Hole-Selective Layers for High-Efficiency, Solution-Processed, Large-Area, Flexible, Hydrogen-Evolving Organic Photocathodes. Journal of Physical Chemistry C, 2017, 121, 21887-21903.	1.5	30
39	Graphene morphology effect on the gas barrier, mechanical and thermal properties of thermoplastic polyurethane. Composites Science and Technology, 2020, 200, 108461.	3.8	30
40	Nitrogen-doped graphene based triboelectric nanogenerators. Nano Energy, 2021, 87, 106173.	8.2	30
41	Single-step exfoliation and functionalization of few-layers black phosphorus and its application for polymer composites. FlatChem, 2019, 18, 100131.	2.8	28
42	Flexible Graphene/Carbon Nanotube Electrochemical Double-Layer Capacitors with Ultrahigh Areal Performance. ChemPlusChem, 2019, 84, 882-892.	1.3	28
43	CVD-graphene/graphene flakes dual-films as advanced DSSC counter electrodes. 2D Materials, 2019, 6, 035007.	2.0	23
44	â€œlon slidingâ€•on graphene: a novel concept to boost supercapacitor performance. Nanoscale Horizons, 2019, 4, 1077-1091.	4.1	22
45	Carbon nanotubes-bridged molybdenum trioxide nanosheets as high performance anode for lithium ion batteries. 2D Materials, 2018, 5, 015024.	2.0	21
46	A two-fold engineering approach based on Bi ₂ Te ₃ flakes towards efficient and stable inverted perovskite solar cells. Materials Advances, 2020, 1, 450-462.	2.6	21
47	Ultralow friction of ink-jet printed graphene flakes. Nanoscale, 2017, 9, 7612-7624.	2.8	20
48	A few-layer graphene for advanced composite PVDF membranes dedicated to water desalination: a comparative study. Nanoscale Advances, 2020, 2, 4728-4739.	2.2	19
49	Highâ€•Sulfurâ€•Content Grapheneâ€•Based Composite through Ethanol Evaporation for Highâ€•Energy Lithiumâ€•Sulfur Battery. ChemSusChem, 2020, 13, 1593-1602.	3.6	14
50	3D printed silicon-few layer graphene anode for advanced Li-ion batteries. RSC Advances, 2021, 11, 35051-35060.	1.7	13
51	An integrated and multi-technique approach to characterize airborne graphene flakes in the workplace during production phases. Nanoscale, 2021, 13, 3841-3852.	2.8	11
52	Graphene and related 2D materials for high efficient and stable perovskite solar cells. , 2017, , .		8
53	Exfoliated Bi ₂ Te ₃ -enabled membranes for new concept water desalination: Freshwater production meets new routes. Water Research, 2021, 203, 117503.	5.3	8
54	Few-Layers Graphene-Based Cement Mortars: Production Process and Mechanical Properties. Sustainability, 2022, 14, 784.	1.6	8

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55	Spray deposition of exfoliated MoS ₂ flakes as hole transport layer in perovskite-based photovoltaics. , 2015, , .		5
56	Multi-walled carbon nanotubes enhance the genetic transformation of Bifidobacterium longum. Carbon, 2021, 184, 902-909.	5.4	3
57	Poly(methyl methacrylate)-Assisted Exfoliation of Graphite and Its Use in Acrylonitrile-Butadiene-Styrene Composites. Chemistry - A European Journal, 2020, 26, 6715-6725.	1.7	2
58	One-dimensional heterostructure: The selective decoration of single-walled carbon nanotube tips with metallic nanoparticles. MRS Bulletin, 0, , .	1.7	0