Antonio Esau Del Rio Castillo

List of Publications by Year
in descending order

58 papers	3,813 citations	117625 34 h-index	155660 55 g-index
59 all docs	59 docs citations	59 times ranked	6314 citing authors

#	Article	IF	Citations
1	Dispersibilityâ€Dependent Biodegradation of Graphene Oxide by Myeloperoxidase. Small, 2015, 11, 3985-3994.	10.0	215
2	MoS₂ Quantum Dot/Graphene Hybrids for Advanced Interface Engineering of a CH₃NH₃PbI₃ Perovskite Solar Cell with an Efficiency of over 20%. ACS Nano, 2018, 12, 10736-10754.	14.6	201
3	Graphene Interface Engineering for Perovskite Solar Modules: 12.6% Power Conversion Efficiency over 50 cm² Active Area. ACS Energy Letters, 2017, 2, 279-287.	17.4	196
4	Ink-jet printing of graphene for flexible electronics: An environmentally-friendly approach. Solid State Communications, 2015, 224, 53-63.	1.9	187
5	Scalable Production of Graphene Inks via Wetâ€Jet Milling Exfoliation for Screenâ€Printed Microâ€Supercapacitors. Advanced Functional Materials, 2019, 29, 1807659.	14.9	174
6	Grapheneâ€“Perovskite Solar Cells Exceed 18â€‰% Efficiency: A Stability Study. ChemSusChem, 2016, 9, 2609-2619.	6.8	163
7	Engineered MoSe₂â€Based Heterostructures for Efficient Electrochemical Hydrogen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1703212.	19.5	152
8	High-yield production of 2D crystals by wet-jet milling. Materials Horizons, 2018, 5, 890-904.	12.2	139
9	Mechanically Stacked, Two-Terminal Graphene-Based Perovskite/Silicon Tandem Solar Cell with Efficiency over 26%. Joule, 2020, 4, 865-881.	24.0	125
10	Extending the Continuous Operating Lifetime of Perovskite Solar Cells with a Molybdenum Disulfide Hole Extraction Interlayer. Advanced Energy Materials, 2018, 8, 1702287.	19.5	121
11	Selective organic functionalization of graphene bulk or graphene edges. Chemical Communications, 2011, 47, 9330.	4.1	114
12	Solution-Processed Hybrid Graphene Flake/2H-MoS₂ Quantum Dot Heterostructures for Efficient Electrochemical Hydrogen Evolution. Chemistry of Materials, 2017, 29, 5782-5786.	6.7	93
13	Exfoliation of Few-Layer Black Phosphorus in Low-Boiling-Point Solvents and Its Application in Li-Ion Batteries. Chemistry of Materials, 2018, 30, 506-516.	6.7	93
14	Size-Tuning of WSe₂ Flakes for High Efficiency Inverted Organic Solar Cells. ACS Nano, 2017, 11, 3517-3531.	14.6	90
15	Liquidâ€Phase Exfoliated Indiumâ€“Selenide Flakes and Their Application in Hydrogen Evolution Reaction. Small, 2018, 14, e1800749.	10.0	90
16	WS₂â€“Graphite Dual-Ion Batteries. Nano Letters, 2018, 18, 7155-7164.	9.1	88
17	Black phosphorus polycarbonate polymer composite for pulsed fibre lasers. Applied Materials Today, 2016, 4, 17-23.	4.3	87
18	Grapheneâ€Based Electron Transport Layers in Perovskite Solar Cells: A Stepâ€Up for an Efficient Carrier Collection. Advanced Energy Materials, 2017, 7, 1701349.	19.5	85

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19	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
20	Binder-free graphene as an advanced anode for lithium batteries. Journal of Materials Chemistry A, 2016, 4, 6886-6895.	10.3	79
21	Selective suspension of single layer graphene mechanochemically exfoliated from carbon nanofibres. Nano Research, 2014, 7, 963-972.	10.4	73
22	Graphene-Induced Improvements of Perovskite Solar Cell Stability: Effects on Hot-Carriers. Nano Letters, 2019, 19, 684-691.	9.1	72
23	An anisotropic layer-by-layer carbon nanotube/boron nitride/rubber composite and its application in electromagnetic shielding. Nanoscale, 2020, 12, 7782-7791.	5.6	68
24	Dopedâ€MoSe₂ Nanoflakes/3d Metal Oxideâ€“Hydr(Oxy)Oxides Hybrid Catalysts for pHâ€Universal Electrochemical Hydrogen Evolution Reaction. Advanced Energy Materials, 2018, 8, 1801764.	19.5	67
25	Integration of two-dimensional materials-based perovskite solar panels into a stand-alone solar farm. Nature Energy, 2022, 7, 597-607.	39.5	66
26	Scalable spray-coated graphene-based electrodes for high-power electrochemical double-layer capacitors operating over a wide range of temperature. Energy Storage Materials, 2021, 34, 1-11.	18.0	61
27	Thermal Stability and Anisotropic Sublimation of Two-Dimensional Colloidal Bi₂Te₃ and Bi₂Se₃ Nanocrystals. Nano Letters, 2016, 16, 4217-4223.	9.1	60
28	Few-layer MoS₂flakes as a hole-selective layer for solution-processed hybrid organic hydrogen-evolving photocathodes. Journal of Materials Chemistry A, 2017, 5, 4384-4396.	10.3	55
29	Few-layer graphene improves silicon performance in Li-ion battery anodes. Journal of Materials Chemistry A, 2017, 5, 19306-19315.	10.3	54
30	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
31	Effect of graphene nano-platelet morphology on the elastic modulus of soft and hard biopolymers. Carbon, 2016, 109, 331-339.	10.3	44
32	Biotransformation and Biological Interaction of Graphene and Graphene Oxide during Simulated Oral Ingestion. Small, 2018, 14, e1800227.	10.0	42
33	Cellulosic Graphene Biocomposites for Versatile Highâ€Performance Flexible Electronic Applications. Advanced Electronic Materials, 2016, 2, 1600245.	5.1	39
34	Highâ€Power Grapheneâ€“Carbon Nanotube Hybrid Supercapacitors. ChemNanoMat, 2017, 3, 436-446.	2.8	39
35	How much does size really matter? Exploring the limits of graphene as Li ion battery anode material. Solid State Communications, 2017, 251, 88-93.	1.9	36
36	Applications of supercritical fluids to enhance the dissolution behaviors of Furosemide by generation of microparticles and solid dispersions. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 81, 131-141.	4.3	35

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37	Graphene-engineered automated sprayed mesoscopic structure for perovskite device scaling-up. 2D Materials, 2018, 5, 045034.	4.4	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.	3.1	30
39	Graphene morphology effect on the gas barrier, mechanical and thermal properties of thermoplastic polyurethane. Composites Science and Technology, 2020, 200, 108461.	7.8	30
40	Nitrogen-doped graphene based triboelectric nanogenerators. Nano Energy, 2021, 87, 106173.	16.0	30
41	Single-step exfoliation and functionalization of few-layers black phosphorus and its application for polymer composites. FlatChem, 2019, 18, 100131.	5.6	28
42	Flexible Graphene/Carbon Nanotube Electrochemical Doubleâ€Layer Capacitors with Ultrahigh Areal Performance. ChemPlusChem, 2019, 84, 882-892.	2.8	28
43	CVD-graphene/graphene flakes dual-films as advanced DSSC counter electrodes. 2D Materials, 2019, 6, 035007.	4.4	23
44	â€œIon slidingâ€•on graphene: a novel concept to boost supercapacitor performance. Nanoscale Horizons, 2019, 4, 1077-1091.	8.0	22
45	Carbon nanotubes-bridged molybdenum trioxide nanosheets as high performance anode for lithium ion batteries. 2D Materials, 2018, 5, 015024.	4.4	21
46	A two-fold engineering approach based on Bi₂Te₃ flakes towards efficient and stable inverted perovskite solar cells. Materials Advances, 2020, 1, 450-462.	5.4	21
47	Ultralow friction of ink-jet printed graphene flakes. Nanoscale, 2017, 9, 7612-7624.	5.6	20
48	A few-layer graphene for advanced composite PVDF membranes dedicated to water desalination: a comparative study. Nanoscale Advances, 2020, 2, 4728-4739.	4.6	19
49	Highâ€Sulfurâ€Content Grapheneâ€Based Composite through Ethanol Evaporation for Highâ€Energy Lithiumâ€Sulfur Battery. ChemSusChem, 2020, 13, 1593-1602.	6.8	14
50	3D printed silicon-few layer graphene anode for advanced Li-ion batteries. RSC Advances, 2021, 11, 35051-35060.	3.6	13
51	An integrated and multi-technique approach to characterize airborne graphene flakes in the workplace during production phases. Nanoscale, 2021, 13, 3841-3852.	5.6	11
52	Graphene and related 2D materials for high efficient and stable perovskite solar cells. , 2017, , .		8
53	Exfoliated Bi2Te3-enabled membranes for new concept water desalination: Freshwater production meets new routes. Water Research, 2021, 203, 117503.	11.3	8
54	Few-Layers Graphene-Based Cement Mortars: Production Process and Mechanical Properties. Sustainability, 2022, 14, 784.	3.2	8

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55	Spray deposition of exfoliated MoS2 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.	10.3	3
57	Poly(methyl methacrylate)â€Assisted Exfoliation of Graphite and Its Use in Acrylonitrileâ€Butadieneâ€Styrene Composites. Chemistry - A European Journal, 2020, 26, 6715-6725.	3.3	2
58	One-dimensional heterostructure: The selective decoration of single-walled carbon nanotube tips with metallic nanoparticles. MRS Bulletin, 0, , .	3.5	0