

# Ali Esfandiar

## List of Publications by Year in descending order

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Version: 2024-02-01

45  
papers

4,636  
citations

257450

24  
h-index

243625

44  
g-index

49  
all docs

49  
docs citations

49  
times ranked

6708  
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalously low dielectric constant of confined water. <i>Science</i> , 2018, 360, 1339-1342.	12.6	627
2	Wrapping Bacteria by Graphene Nanosheets for Isolation from Environment, Reactivation by Sonication, and Inactivation by Near-Infrared Irradiation. <i>Journal of Physical Chemistry B</i> , 2011, 115, 6279-6288.	2.6	578
3	Molecular transport through capillaries made with atomic-scale precision. <i>Nature</i> , 2016, 538, 222-225.	27.8	483
4	Size effect in ion transport through angstrom-scale slits. <i>Science</i> , 2017, 358, 511-513.	12.6	418
5	Photodegradation of Graphene Oxide Sheets by TiO <sub>2</sub> Nanoparticles after a Photocatalytic Reduction. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12955-12959.	3.1	393
6	Melatonin as a powerful bio-antioxidant for reduction of graphene oxide. <i>Journal of Materials Chemistry</i> , 2011, 21, 10907.	6.7	255
7	Increasing the antioxidant activity of green tea polyphenols in the presence of iron for the reduction of graphene oxide. <i>Carbon</i> , 2012, 50, 3015-3025.	10.3	240
8	Complete steric exclusion of ions and proton transport through confined monolayer water. <i>Science</i> , 2019, 363, 145-148.	12.6	207
9	Pd@WO <sub>3</sub> /reduced graphene oxide hierarchical nanostructures as efficient hydrogen gas sensors. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8169-8179.	7.1	163
10	Ballistic molecular transport through two-dimensional channels. <i>Nature</i> , 2018, 558, 420-424.	27.8	139
11	The decoration of TiO <sub>2</sub> /reduced graphene oxide by Pd and Pt nanoparticles for hydrogen gas sensing. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 15423-15432.	7.1	130
12	Scalable and efficient separation of hydrogen isotopes using graphene-based electrochemical pumping. <i>Nature Communications</i> , 2017, 8, 15215.	12.8	119
13	Cyto and genotoxicities of graphene oxide and reduced graphene oxide sheets on spermatozoa. <i>RSC Advances</i> , 2014, 4, 27213.	3.6	117
14	Multi-porous Co <sub>3</sub> O <sub>4</sub> nanoflakes @ sponge-like few-layer partially reduced graphene oxide hybrids: towards highly stable asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12569-12577.	10.3	96
15	Synthesis and characterization of TiO <sub>2</sub> @graphene nanocomposites modified with noble metals as a photocatalyst for degradation of pollutants. <i>Applied Catalysis A: General</i> , 2013, 462-463, 82-90.	4.3	59
16	Graphene/PbS as a Novel Counter Electrode for Quantum Dot Sensitized Solar Cells. <i>ACS Photonics</i> , 2014, 1, 323-330.	6.6	52
17	DNA-decorated graphene nanomesh for detection of chemical vapors. <i>Applied Physics Letters</i> , 2013, 103, 183110.	3.3	45
18	Scalable arrays of chemical vapor sensors based on DNA-decorated graphene. <i>Nano Research</i> , 2014, 7, 95-103.	10.4	45

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19	A selective chemiresistive sensor for the cancer-related volatile organic compound hexanal by using molecularly imprinted polymers and multiwalled carbon nanotubes. <i>Mikrochimica Acta</i> , 2019, 186, 137.	5.0	44
20	Selecting Support Layer for Electrodeposited Efficient Cobalt Oxide/Hydroxide Nanoflakes to Split Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3151-3159.	6.7	42
21	Effects of vacancies on electronic and optical properties of GaN nanosheet: A density functional study. <i>Optical Materials</i> , 2015, 47, 44-50.	3.6	29
22	Charge Asymmetry Effect in Ion Transport through Angstrom-Scale Channels. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1462-1469.	3.1	29
23	A stable and high-energy hybrid supercapacitor using porous Cu <sub>2</sub> O@Cu <sub>1.8</sub> S nanowire arrays. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1920-1928.	10.3	29
24	High flux and complete dyes removal from water by reduced graphene oxide laminate on Poly Vinylidene Fluoride/graphene oxide membranes. <i>Environmental Research</i> , 2021, 201, 111576.	7.5	26
25	Urchin-like hierarchical ruthenium cobalt oxide nanosheets on Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene as a binder-free bifunctional electrode for overall water splitting and supercapacitors. <i>Nanoscale</i> , 2022, 14, 1347-1362.	5.6	26
26	Ion transport through graphene oxide fibers as promising candidate for blue energy harvesting. <i>Carbon</i> , 2020, 165, 267-274.	10.3	25
27	High-Photoresponsive Backward Diode by Two-Dimensional SnS <sub>2</sub> /Silicon Heterostructure. <i>ACS Photonics</i> , 2019, 6, 728-734.	6.6	24
28	Fabrication, characterization and some applications of graded chiral zigzag shaped nano-sculptured silver thin films. <i>Applied Surface Science</i> , 2011, 257, 9425-9434.	6.1	21
29	Ultrafast and stable planar photodetector based on SnS <sub>2</sub> nanosheets/perovskite structure. <i>Scientific Reports</i> , 2021, 11, 19353.	3.3	19
30	Shedding Light on Pseudocapacitive Active Edges of Single-Layer Graphene Nanoribbons as High-Capacitance Supercapacitors. <i>ACS Applied Energy Materials</i> , 2019, 2, 3665-3675.	5.1	18
31	High Energy Aqueous Rechargeable Nickel-Zinc Battery Employing Hierarchical NiV-LDH Nanosheet-Built Microspheres on Reduced Graphene Oxide. <i>ACS Applied Energy Materials</i> , 2021, 4, 2377-2387.	5.1	17
32	Plasmonic enhancement of photocurrent generation in two-dimensional heterostructure of WSe <sub>2</sub> /MoS <sub>2</sub> . <i>Nanotechnology</i> , 2021, 32, 325203.	2.6	15
33	A graphene/TiS <sub>3</sub> heterojunction for resistive sensing of polar vapors at room temperature. <i>Mikrochimica Acta</i> , 2020, 187, 117.	5.0	14
34	Design of effective self-powered SnS <sub>2</sub> /halide perovskite photo-detection system based on triboelectric nanogenerator by regarding circuit impedance. <i>Scientific Reports</i> , 2022, 12, 7227.	3.3	14
35	Visualising structural modification of patterned graphene nanoribbons using tip-enhanced Raman spectroscopy. <i>Chemical Communications</i> , 2021, 57, 6895-6898.	4.1	13
36	Structural and dynamical fingerprints of the anomalous dielectric properties of water under confinement. <i>Physical Review Materials</i> , 2021, 5, .	2.4	10

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37	Optical spectra of graded nanostructured TiO <sub>2</sub> chiral sculptured thin films. Optics Communications, 2010, 283, 2849-2856.	2.1	9
38	Enhanced Photoresponse and Wavelength Selectivity by SILAR-Coated Quantum Dots on Two-Dimensional WSe <sub>2</sub> Crystals. ACS Omega, 2022, 7, 2091-2098.	3.5	9
39	Facile synthesis of highly efficient bifunctional electrocatalyst by vanadium oxysulfide spheres on cobalt-cobalt sulfonitride nanosheets for oxygen and hydrogen evolution reaction. Electrochimica Acta, 2021, 391, 138948.	5.2	8
40	Cauliflower-Like Ni/MXene-Bridged Fiber-Shaped Electrode for Flexible Microsupercapacitor. Energy & Fuels, 2022, 36, 2140-2148.	5.1	8
41	On the fabrication and characterization of graded slanted chiral nano-sculptured silver thin films. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 50, 88-96.	2.7	7
42	Mechanical hydrolysis imparts self-destruction of water molecules under steric confinement. Physical Chemistry Chemical Physics, 2021, 23, 5999-6008.	2.8	5
43	Universal rotation of nanowires in static uniform electric fields in viscous dielectric liquids. Applied Physics Letters, 2018, 113, 063101.	3.3	4
44	Bimetallic Oxide Nanosheets from Nickel-Vanadium Layered Double Hydroxide as an Efficient Cathode for Rechargeable Nickel-Zinc Batteries. Energy & Fuels, 0, , .	5.1	3
45	Shooting at the nanoscale: Collection and acceleration of nanowires with an external electric field. Applied Physics Letters, 2019, 114, 013102.	3.3	2