

# Nageh Allam

## List of Publications by Year in descending order

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Version: 2024-02-01

286  
papers

9,662  
citations

44069

48  
h-index

66911

78  
g-index

288  
all docs

288  
docs citations

288  
times ranked

9966  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Recent Advances in the Use of TiO <sub>2</sub> Nanotube and Nanowire Arrays for Oxidative Photoelectrochemistry. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6327-6359.   | 3.1  | 776       |
| 2  | Photoelectrochemical and water photoelectrolysis properties of ordered TiO <sub>2</sub> nanotubes fabricated by Ti anodization in fluoride-free HCl electrolytes. <i>Journal of Materials Chemistry</i> , 2008, 18, 2341.                         | 6.7  | 198       |
| 3  | Co <sup>II</sup> -Cu Bimetallic Metal Organic Framework Catalyst Outperforms the Pt/C Benchmark for Oxygen Reduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 4064-4073.   | 13.7 | 175       |
| 4  | Impact of nanotechnology on biogas production: A mini-review. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 50, 1392-1404.  | 16.4 | 144       |
| 5  | Impact of Nanotechnology on Enhanced Oil Recovery: A Mini-Review. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 16287-16295.   | 3.7  | 133       |
| 6  | Formation of Vertically Oriented TiO <sub>2</sub> Nanotube Arrays using a Fluoride Free HCl Aqueous Electrolyte. <i>Journal of Physical Chemistry C</i> , 2007, 111, 13028-13032.   | 3.1  | 132       |
| 7  | A facile electrosynthesis approach of amorphous Mn-Co-Fe ternary hydroxides as binder-free active electrode materials for high-performance supercapacitors. <i>Electrochimica Acta</i> , 2019, 296, 59-68.  | 5.2  | 128       |
| 8  | Self-Assembled Fabrication of Vertically Oriented Ta <sub>2</sub> O <sub>5</sub> Nanotube Arrays, and Membranes Thereof, by One-Step Tantalum Anodization. <i>Chemistry of Materials</i> , 2008, 20, 6477-6481.                                   | 6.7  | 121       |
| 9  | TiO <sub>2</sub> Nanotube/CdS Hybrid Electrodes: Extraordinary Enhancement in the Inactivation of <i>Escherichia coli</i> . <i>Journal of the American Chemical Society</i> , 2010, 132, 14406-14408.   | 13.7 | 121       |
| 10 | A review of the effects of benzotriazole on the corrosion of copper and copper alloys in clean and polluted environments. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 961-969.   | 2.9  | 119       |
| 11 | 3D Interconnected Binder-Free Electrospun MnO@C Nanofibers for Supercapacitor Devices. <i>Scientific Reports</i> , 2018, 8, 7988.   | 3.3  | 113       |
| 12 | Thermodynamic and quantum chemistry characterization of the adsorption of triazole derivatives during Muntz corrosion in acidic and neutral solutions. <i>Applied Surface Science</i> , 2007, 253, 4570-4577.                                     | 6.1  | 106       |
| 13 | Recent advances in the design of cathode materials for Li-ion batteries. <i>RSC Advances</i> , 2020, 10, 21662-21685.   | 3.6  | 106       |
| 14 | A General Method for the Anodic Formation of Crystalline Metal Oxide Nanotube Arrays without the Use of Thermal Annealing. <i>Advanced Materials</i> , 2008, 20, 3942-3946.   | 21.0 | 104       |
| 15 | Asymmetric supercapacitors based on 3D graphene-wrapped V <sub>2</sub> O <sub>5</sub> nanospheres and Fe <sub>3</sub> O <sub>4</sub> @3D graphene electrodes with high power and energy densities. <i>Electrochimica Acta</i> , 2019, 310, 58-69. | 5.2  | 99        |
| 16 | Nanostructured spinel manganese cobalt ferrite for high-performance supercapacitors. <i>RSC Advances</i> , 2017, 7, 51888-51895.  | 3.6  | 98        |
| 17 | Semi-transparent perovskite solar cells: unveiling the trade-off between transparency and efficiency. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19696-19702.   | 10.3 | 95        |
| 18 | Effect of cathode material on the morphology and photoelectrochemical properties of vertically oriented TiO <sub>2</sub> nanotube arrays. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1468-1475.                                    | 6.2  | 93        |

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|----|--|------|-----------|
| 19 | Bacteriorhodopsin/TiO <sub>2</sub> nanotube arrays hybrid system for enhanced photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2011, 4, 2909.   | 30.8 | 93        |
| 20 | Photoelectrochemical Water Oxidation Characteristics of Anodically Fabricated TiO <sub>2</sub> Nanotube Arrays: Structural and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2010, 114, 12024-12029.    | 3.1  | 91        |
| 21 | Electrochemical fabrication of complex copper oxide nanoarchitectures via copper anodization in aqueous and non-aqueous electrolytes. <i>Materials Letters</i> , 2011, 65, 1949-1955.                                  | 2.6  | 91        |
| 22 | Room Temperature One-Step Polyol Synthesis of Anatase TiO <sub>2</sub> Nanotube Arrays: Photoelectrochemical Properties. <i>Langmuir</i> , 2009, 25, 7234-7240.  | 3.5  | 89        |
| 23 | Electrochemical Fabrication of Strontium-Doped TiO <sub>2</sub> Nanotube Array Electrodes and Investigation of Their Photoelectrochemical Properties. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13480-13486. | 3.1  | 88        |
| 24 | Three-Dimensional Interconnected Binder-Free Mn-Ni-S Nanosheets for High Performance Asymmetric Supercapacitor Devices with Exceptional Cyclic Stability. <i>ACS Applied Energy Materials</i> , 2019, 2, 3717-3725.    | 5.1  | 88        |
| 25 | Enhanced Photoassisted Water Electrolysis Using Vertically Oriented Anodically Fabricated Ti-Nb-Zr-O Mixed Oxide Nanotube Arrays. <i>ACS Nano</i> , 2010, 4, 5819-5826.  | 14.6 | 85        |
| 26 | Untapped Potential of Polymorph MoS <sub>2</sub> : Tuned Cationic Intercalation for High-Performance Symmetric Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 33955-33965.                 | 8.0  | 80        |
| 27 | TiO <sub>2</sub> nanoparticles optimized for photoanodes tested in large area Dye-sensitized solar cells (DSSC). <i>Solar Energy Materials and Solar Cells</i> , 2016, 153, 108-116.                                   | 6.2  | 77        |
| 28 | Vertically Oriented Ti-Pd Mixed Oxynitride Nanotube Arrays for Enhanced Photoelectrochemical Water Splitting. <i>ACS Nano</i> , 2011, 5, 5056-5066.  | 14.6 | 76        |
| 29 | Unveiling the Effect of the Structure of Carbon Material on the Charge Storage Mechanism in MoS <sub>2</sub> -Based Supercapacitors. <i>ACS Omega</i> , 2018, 3, 16301-16308.  | 3.5  | 76        |
| 30 | Recent advances in the use of TiO <sub>2</sub> nanotube powder in biological, environmental, and energy applications. <i>Nanoscale Advances</i> , 2019, 1, 2801-2816.  | 4.6  | 73        |
| 31 | Adenine-functionalized Spongy Graphene for Green and High-Performance Supercapacitors. <i>Scientific Reports</i> , 2017, 7, 43104.   | 3.3  | 71        |
| 32 | N-doped carbon quantum dots boost the electrochemical supercapacitive performance and cyclic stability of MoS <sub>2</sub> . <i>Journal of Energy Storage</i> , 2020, 27, 101078.                                      | 8.1  | 69        |
| 33 | Mesoporous spinel manganese zinc ferrite for high-performance supercapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2018, 817, 111-117.   | 3.8  | 67        |
| 34 | Low power UV photodetection characteristics of cross-linked ZnO nanorods/nanotetrapods grown on silicon chip. <i>Sensors and Actuators A: Physical</i> , 2013, 192, 124-129.   | 4.1  | 64        |
| 35 | Electrospun Mesoporous Mn-V-O@C Nanofibers for High-Performance Asymmetric Supercapacitor Devices with High Stability. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 13471-13480.                        | 6.7  | 64        |
| 36 | Eco-friendly facile synthesis of glucose-derived microporous carbon spheres electrodes with enhanced performance for water capacitive deionization. <i>Desalination</i> , 2020, 477, 114278.                           | 8.2  | 63        |

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|----|---|------|-----------|
| 37 | Novel MWCNTs/graphene oxide/pyrogallol composite with enhanced sensitivity for biosensing applications. <i>Biosensors and Bioelectronics</i> , 2017, 89, 1034-1041.   | 10.1 | 60        |
| 38 | 3D spongy graphene-modified screen-printed sensors for the voltammetric determination of the narcotic drug codeine. <i>Biosensors and Bioelectronics</i> , 2018, 101, 90-95.  | 10.1 | 58        |
| 39 | Novel Z-Scheme/Type-II CdS@ZnO/g-C <sub>3</sub> N <sub>4</sub> ternary nanocomposites for the durable photodegradation of organics: Kinetic and mechanistic insights. <i>Chemosphere</i> , 2021, 277, 128730.                   | 8.2  | 58        |
| 40 | Functionalized cellulose-magnetite nanocomposite catalysts for efficient biodiesel production. <i>Chemical Engineering Journal</i> , 2017, 322, 167-180.  | 12.7 | 56        |
| 41 | Unveiling CO adsorption on Cu surfaces: new insights from molecular orbital principles. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 25892-25900.   | 2.8  | 56        |
| 42 | Unravelling the interplay of crystal structure and electronic band structure of tantalum oxide (Ta <sub>2</sub> O <sub>5</sub> ). <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 1352-1357.                             | 2.8  | 55        |
| 43 | Interface Architecture Determined Electrocatalytic Activity of Pt on Vertically Oriented TiO <sub>2</sub> Nanotubes. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 147-151.  | 8.0  | 53        |
| 44 | Towards nanostructured perovskite solar cells with enhanced efficiency: Coupled optical and electrical modeling. <i>Solar Energy</i> , 2016, 137, 364-370.  | 6.1  | 53        |
| 45 | Rational design of porous binary Pt-based nanodendrites as efficient catalysts for direct glucose fuel cells over a wide pH range. <i>Catalysis Science and Technology</i> , 2017, 7, 2819-2827.                                | 4.1  | 53        |
| 46 | Effect of Rapid Infrared Annealing on the Photoelectrochemical Properties of Anodically Fabricated TiO <sub>2</sub> Nanotube Arrays. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7996-7999.                             | 3.1  | 52        |
| 47 | Morphological and structural characterization of single-crystal ZnO nanorod arrays on flexible and non-flexible substrates. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 720-725.                                      | 2.8  | 52        |
| 48 | Bimetallic Co-W-S Chalcogenides Confined in N,S-Codoped Porous Carbon Matrix Derived from Metal-Organic Frameworks for Highly Stable Electrochemical Supercapacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 8064-8074. | 5.1  | 52        |
| 49 | Facile Synthesis of Nanostructured Binary Ni-Cu Phosphides as Advanced Battery Materials for Asymmetric Electrochemical Supercapacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 9305-9314.                              | 5.1  | 52        |
| 50 | TiO <sub>2</sub> nanotubes with ultrathin walls for enhanced water splitting. <i>Chemical Communications</i> , 2015, 51, 12617-12620.   | 4.1  | 50        |
| 51 | An Experimental Insight into the Structural and Electronic Characteristics of Strontium-Doped Titanium Dioxide Nanotube Arrays. <i>Advanced Functional Materials</i> , 2014, 24, 6783-6796.                                     | 14.9 | 49        |
| 52 | Vertically aligned crystalline silicon nanowires with controlled diameters for energy conversion applications: Experimental and theoretical insights. <i>Journal of Applied Physics</i> , 2014, 115, .                          | 2.5  | 48        |
| 53 | TiO <sub>2</sub> Nanotube-Based Dye-Sensitized Solar Cell Using New Photosensitizer with Enhanced Open-Circuit Voltage and Fill Factor. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 4413-4418.                     | 8.0  | 47        |
| 54 | Thermal/Electrochemical Growth and Characterization of One-Dimensional ZnO/TiO <sub>2</sub> Hybrid Nanoelectrodes for Solar Fuel Production. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18502-18509.                   | 3.1  | 47        |

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|----|---|------|-----------|
| 55 | Recent advances in the use of metal oxide-based photocathodes for solar fuel production. <i>Journal of Renewable and Sustainable Energy</i> , 2014, 6, .  | 2.0  | 47        |
| 56 | A facile electrosynthesis approach of Mn-Ni-Co ternary phosphides as binder-free active electrode materials for high-performance electrochemical supercapacitors. <i>Electrochimica Acta</i> , 2021, 380, 138197.                       | 5.2  | 47        |
| 57 | Unveiling the Synergistic Effect of ZnO Nanoparticles and Surfactant Colloids for Enhanced Oil Recovery. <i>Colloids and Interface Science Communications</i> , 2019, 29, 33-39.  | 4.1  | 46        |
| 58 | Novel Bi-based photocatalysts with unprecedented visible light-driven hydrogen production rate: Experimental and DFT insights. <i>Chemical Engineering Journal</i> , 2020, 384, 123351.   | 12.7 | 46        |
| 59 | Metal-Organic frameworks encapsulated with vanadium-substituted heteropoly acid for highly stable asymmetric supercapacitors. <i>Journal of Energy Storage</i> , 2020, 28, 101292.  | 8.1  | 46        |
| 60 | Growth of vertically aligned ZnO nanorods on Teflon as a novel substrate for low-power flexible light sensors. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 119, 1197-1201.                                       | 2.3  | 45        |
| 61 | Wind energy systems: Analysis of the self-starting physics of vertical axis wind turbine. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 1602-1610.  | 16.4 | 45        |
| 62 | Hybrid supercapacitors: A simple electrochemical approach to determine optimum potential window and charge balance. <i>Journal of Power Sources</i> , 2020, 480, 229152.  | 7.8  | 45        |
| 63 | Morphology-photoactivity relationship: WO <sub>3</sub> nanostructured films for solar hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 866-872.   | 7.1  | 44        |
| 64 | Enhanced photoelectrochemical water splitting characteristics of TiO <sub>2</sub> hollow porous spheres by embedding graphene as an electron transfer channel. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 29131-29139. | 7.1  | 44        |
| 65 | Effects of benzotriazole on the corrosion of Cu <sub>10</sub> Ni alloy in sulfide-polluted salt water. <i>Corrosion Science</i> , 2005, 47, 2280-2292.  | 6.6  | 43        |
| 66 | Wide visible emission and narrowing band gap in Cd-doped ZnO nanopowders synthesized via sol-gel route. <i>Journal of Alloys and Compounds</i> , 2016, 687, 920-926.  | 5.5  | 43        |
| 67 | Photoelectrochemical water splitting by defects in nanostructured multinary transition metal oxides. <i>Solar Energy Materials and Solar Cells</i> , 2019, 194, 184-194.  | 6.2  | 43        |
| 68 | Stable solar-driven water splitting by anodic ZnO nanotubular semiconducting photoanodes. <i>RSC Advances</i> , 2016, 6, 80221-80225.   | 3.6  | 42        |
| 69 | One-step, calcination-free synthesis of zinc cobaltite nanospheres for high-performance supercapacitors. <i>Materials Today Energy</i> , 2017, 4, 97-104.   | 4.7  | 41        |
| 70 | Non-precious co-catalysts boost the performance of TiO <sub>2</sub> hierarchical hollow mesoporous spheres in solar fuel cells. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21219-21230.                                | 7.1  | 41        |
| 71 | Recycling of Li <sup>+</sup> Ni <sup>2+</sup> Mn <sup>2+</sup> Co Hydroxide from Spent Batteries to Produce High-Performance Supercapacitors with Exceptional Stability. <i>ChemElectroChem</i> , 2020, 7, 975-982.                     | 3.4  | 41        |
| 72 | On the nature of defect states in tungstate nanoflake arrays as promising photoanodes in solar fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22217-22223.  | 2.8  | 40        |

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|----|---|-----|-----------|
| 73 | Silver Nanoparticles-Decorated Titanium Oxynitride Nanotube Arrays for Enhanced Solar Fuel Generation. <i>Scientific Reports</i> , 2017, 7, 1913.   | 3.3 | 40        |
| 74 | Cost-Effective Face Mask Filter Based on Hybrid Composite Nanofibrous Layers with High Filtration Efficiency. <i>Langmuir</i> , 2021, 37, 7492-7502.  | 3.5 | 40        |
| 75 | ZnO nano-tetrapod photoanodes for enhanced solar-driven water splitting. <i>Chemical Physics Letters</i> , 2012, 549, 62-66.  | 2.6 | 39        |
| 76 | A first-principles roadmap and limits to design efficient supercapacitor electrode materials. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 17494-17511.   | 2.8 | 39        |
| 77 | Recent advances on zeolitic imidazolate -67 metal-organic framework-derived electrode materials for electrochemical supercapacitors. <i>Journal of Energy Storage</i> , 2021, 34, 102195.                           | 8.1 | 39        |
| 78 | Effect of cysteine on the electrochemical behavior of Cu <sub>10</sub> Ni alloy in sulfide polluted environments: Experimental and theoretical aspects. <i>Materials Chemistry and Physics</i> , 2012, 136, 1-9.    | 4.0 | 38        |
| 79 | Layered Tantalum Oxynitride Nanorod Array Carpets for Efficient Photoelectrochemical Conversion of Solar Energy: Experimental and DFT Insights. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 4609-4615. | 8.0 | 38        |
| 80 | Microwave-assisted chemical bath deposition of nanocrystalline CdS thin films with superior photodetection characteristics. <i>Sensors and Actuators A: Physical</i> , 2015, 230, 9-16.                             | 4.1 | 38        |
| 81 | Nanostructured tantalum as a template for enhanced osseointegration. <i>Nanotechnology</i> , 2009, 20, 045102.  | 2.6 | 37        |
| 82 | The DFT+U: Approaches, Accuracy, and Applications. , 0, , .   |     | 37        |
| 83 | Tinâ€“zinc-oxide nanocomposites (SZO) as promising electron transport layers for efficient and stable perovskite solar cells. <i>Nanoscale Advances</i> , 2019, 1, 2654-2662.                                       | 4.6 | 37        |
| 84 | Nanocrystalline Cellulose Confined in Amorphous Carbon Fibers as Capacitor Material for Efficient Energy Storage. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7007-7015.                                    | 3.1 | 37        |
| 85 | Effect of Ni-Ferrite and Ni-Co-Ferrite nanostructures on biogas production from anaerobic digestion. <i>Fuel</i> , 2019, 254, 115673.   | 6.4 | 36        |
| 86 | Ge-doped ZnO nanorods grown on FTO for photoelectrochemical water splitting with exceptional photoconversion efficiency. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 209-220.                       | 7.1 | 36        |
| 87 | Nanostructuring for enhanced absorption and carrier collection in CZTS-based solar cells: Coupled optical and electrical modeling. <i>Optical Materials</i> , 2016, 54, 84-88.                                      | 3.6 | 35        |
| 88 | Self-assembled growth of vertically aligned ZnO nanorods for light sensing applications. <i>Materials Letters</i> , 2014, 137, 45-48.   | 2.6 | 34        |
| 89 | Recent Advances in the Regenerative Approaches for Traumatic Spinal Cord Injury: Materials Perspective. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 6490-6509.                                       | 5.2 | 34        |
| 90 | Novel facet-engineered multi-doped TiO <sub>2</sub> mesocrystals with unprecedented visible light photocatalytic hydrogen production. <i>Solar Energy Materials and Solar Cells</i> , 2021, 220, 110825.            | 6.2 | 34        |

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|-----|---|------|-----------|
| 91  | Computational study on oxynitride perovskites for CO <sub>2</sub> photoreduction. <i>Energy Conversion and Management</i> , 2016, 122, 207-214.   | 9.2  | 33        |
| 92  | Tuning The Photoactivity of Zirconia Nanotubes-Based Photoanodes via Ultrathin Layers of ZrN: An Effective Approach toward Visible-Light Water Splitting. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7025-7032.        | 3.1  | 33        |
| 93  | Efficient fabrication methodology of wide angle black silicon for energy harvesting applications. <i>RSC Advances</i> , 2017, 7, 26974-26982.   | 3.6  | 33        |
| 94  | Recent advances on electrospun scaffolds as matrices for tissue-engineered heart valves. <i>Materials Today Chemistry</i> , 2017, 5, 11-23.   | 3.5  | 33        |
| 95  | Robust photoactive nanoadsorbents with antibacterial activity for the removal of dyes. <i>Journal of Hazardous Materials</i> , 2019, 378, 120679.   | 12.4 | 33        |
| 96  | ZnO nanorods/polyaniline heterojunctions for low-power flexible light sensors. <i>Materials Chemistry and Physics</i> , 2016, 181, 7-11.  | 4.0  | 32        |
| 97  | CoFe <sub>2</sub> O <sub>4</sub> @Carbon Spheres Electrode: A One-Step Solvothermal Method for Enhancing the Electrochemical Performance of Hybrid Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 526-534.                  | 3.4  | 32        |
| 98  | Bioactive and Elastic Nanocomposites with Antimicrobial Properties for Bone Tissue Regeneration. <i>ACS Applied Bio Materials</i> , 2020, 3, 3313-3325.   | 4.6  | 32        |
| 99  | Biocompatible PCL-nanofibers scaffold with immobilized fibronectin and laminin for neuronal tissue regeneration. <i>Materials Science and Engineering C</i> , 2021, 119, 111550.  | 7.3  | 32        |
| 100 | Superior visible light antimicrobial performance of facet engineered cobalt doped TiO <sub>2</sub> mesocrystals in pathogenic bacterium and fungi. <i>Scientific Reports</i> , 2021, 11, 5609.                                  | 3.3  | 32        |
| 101 | Binder-Free Electrospun Ni-Mn-O Nanofibers Embedded in Carbon Shells with Ultrahigh Energy and Power Densities for Highly Stable Next-Generation Energy Storage Devices. <i>Langmuir</i> , 2021, 37, 5161-5171.                 | 3.5  | 32        |
| 102 | Unveiling the Optimal Interfacial Synergy of Plasma-Modulated Trimetallic Mn-Ni-Co Phosphides: Tailoring Deposition Ratio for Complementary Water Splitting. <i>Energy and Environmental Materials</i> , 2023, 6, .             | 12.8 | 32        |
| 103 | Self-Standing Crystalline TiO <sub>2</sub> Nanotubes/CNTs Heterojunction Membrane: Synthesis and Characterization. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 952-955.  | 8.0  | 31        |
| 104 | Graphene Quantum Sheets with Multiband Emission: Unravelling the Molecular Origin of Graphene Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2016, 120, 21678-21684.  | 3.1  | 31        |
| 105 | Ultrahigh performance of novel energy-efficient capacitive deionization electrodes based on 3D nanotubular composites. <i>New Journal of Chemistry</i> , 2018, 42, 3560-3567.   | 2.8  | 31        |
| 106 | High-performance solid-state supercapacitor based on Ni-Co layered double hydroxide@Co <sub>3</sub> O <sub>4</sub> nanocubes and spongy graphene electrodes. <i>Applied Surface Science</i> , 2022, 587, 152548.                | 6.1  | 31        |
| 107 | Self-assembled zirconia nanotube arrays: fabrication mechanism, energy consideration and optical activity. <i>RSC Advances</i> , 2014, 4, 36336-36343.  | 3.6  | 30        |
| 108 | In Situ Formation of Graphene Stabilizes Zero-Valent Copper Nanoparticles and Significantly Enhances the Efficiency of Photocatalytic Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16876-16885. | 6.7  | 30        |



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|-----|---|------|-----------|
| 109 | Supercapattery electrode materials by Design: Plasma-induced defect engineering of bimetallic oxyphosphides for energy storage. <i>Journal of Colloid and Interface Science</i> , 2021, 603, 478-490.   | 9.4  | 30        |
| 110 | Effect of complexing agents on the electrodeposition of Cu-Zn-Sn metal precursors and corresponding Cu <sub>2</sub> ZnSnS <sub>4</sub> -based solar cells. <i>Journal of Electroanalytical Chemistry</i> , 2014, 735, 129-135.                | 3.8  | 29        |
| 111 | Novel mineralized electrospun chitosan/PVA/TiO <sub>2</sub> nanofibrous composites for potential biomedical applications: computational and experimental insights. <i>Nanoscale Advances</i> , 2020, 2, 1512-1522.                            | 4.6  | 29        |
| 112 | Innovative nanocomposite formulations for enhancing biogas and biofertilizers production from anaerobic digestion of organic waste. <i>Bioresource Technology</i> , 2020, 309, 123350.  | 9.6  | 29        |
| 113 | Fullerene C <sub>76</sub> : An Unexplored Superior Electrode Material with Wide Operating Potential Window for High-Performance Supercapacitors. <i>ChemElectroChem</i> , 2020, 7, 1672-1678.   | 3.4  | 28        |
| 114 | Unravelling the correlated electronic and optical properties of BaTaO <sub>2</sub> N with perovskite-type structure as a potential candidate for solar energy conversion. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 18418-18424. | 2.8  | 27        |
| 115 | 10-fold enhancement in light-driven water splitting using niobium oxynitride microcone array films. <i>Solar Energy Materials and Solar Cells</i> , 2016, 151, 149-153.   | 6.2  | 27        |
| 116 | DFT insights into the electronic properties and adsorption of NO <sub>2</sub> on metal-doped carbon nanotubes for gas sensing applications. <i>New Journal of Chemistry</i> , 2017, 41, 14936-14944.  | 2.8  | 27        |
| 117 | A Study of Low-Temperature CO Oxidation over Mesoporous CuO-TiO <sub>2</sub> Nanotube Catalysts. <i>Catalysts</i> , 2017, 7, 129.   | 3.5  | 27        |
| 118 | Probing the optical and electronic properties of potential photo-sensitizers with different ħ-spacers: TD-DFT insights. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 188, 237-243.                    | 3.9  | 27        |
| 119 | Eco-friendly, one-step synthesis of cobalt sulfide-decorated functionalized graphene for high-performance supercapacitors. <i>Journal of Energy Storage</i> , 2019, 24, 100760.   | 8.1  | 27        |
| 120 | Transition Metal Selenide (TMSe) electrodes for electrochemical capacitor devices: A critical review. <i>Journal of Energy Storage</i> , 2022, 47, 103565.  | 8.1  | 27        |
| 121 | Interface properties determined the performance of thermally grown GaN/Si heterojunction solar cells. <i>Solar Energy</i> , 2013, 98, 485-491.  | 6.1  | 26        |
| 122 | Sub-100 nm TiO <sub>2</sub> tubular architectures for efficient solar energy conversion. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9375-9380.  | 10.3 | 26        |
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