

# Emad M A Ahmed

## List of Publications by Year in descending order

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Version: 2024-02-01

48  
papers

610  
citations

759233

12  
h-index

642732

23  
g-index

48  
all docs

48  
docs citations

48  
times ranked

580  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Reduced graphene oxide nanosheets decorated with Au, Pd and Au@Pd bimetallic nanoparticles as highly efficient catalysts for electrochemical hydrogen generation. Journal of Materials Chemistry A, 2015, 3, 20254-20266.  | 10.3 | 146       |
| 2  | Responsibility of Bi <sub>2</sub> O <sub>3</sub> Content in Photon, Alpha, Proton, Fast and Thermal Neutron Shielding Capacity and Elastic Moduli of ZnO/B <sub>2</sub> O <sub>3</sub> /Bi <sub>2</sub> O <sub>3</sub> Glasses. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 3505-3524. | 3.7  | 53        |
| 3  | Enhancement of the optical and mechanical properties of chitosan using Fe <sub>2</sub> O <sub>3</sub> nanoparticles. Journal of Materials Science: Materials in Electronics, 2017, 28, 10877-10884.  | 2.2  | 46        |
| 4  | FT-IR, ultrasonic and dielectric characteristics of neodymium (III)/ erbium (III) lead-borate glasses: experimental studies. Journal of Materials Research and Technology, 2021, 13, 1363-1373.  | 5.8  | 40        |
| 5  | Aluminum Titania Nanoparticle Composites as Nonprecious Catalysts for Efficient Electrochemical Generation of H <sub>2</sub> . ACS Applied Materials & Interfaces, 2016, 8, 23655-23667.   | 8.0  | 25        |
| 6  | Chitosan-based nanocomposites: preparation and characterization for food packing industry. Materials Research Express, 2021, 8, 025017.  | 1.6  | 16        |
| 7  | Newly Developed Vanadium-Based Glasses and Their Potential for Nuclear Radiation Shielding Aims: A Monte Carlo Study on Gamma Ray Attenuation Parameters. Materials, 2021, 14, 3897.   | 2.9  | 15        |
| 8  | Characterization and performance evaluation of Cu-based/TiO <sub>2</sub> nano composites. Scientific Reports, 2022, 12, 6669.  | 3.3  | 15        |
| 9  | Fabrication, physical, structure characteristics, neutron and radiation shielding capacity of high-density neodymium-cadmium lead-borate glasses: Nd <sub>2</sub> O <sub>3</sub> /CdO/PbO/B <sub>2</sub> O <sub>3</sub> /Na <sub>2</sub> O. Applied Physics A: Materials Science and Processing, 2022, 128, .        | 2.3  | 15        |
| 10 | Electrical conductivity and dielectric relaxation of cerium (IV) oxide. Journal of Materials Science: Materials in Electronics, 2017, 28, 1501-1507.   | 2.2  | 14        |
| 11 | Investigation of thermomagnetic properties in Ca <sub>3</sub> Co <sub>2</sub> O <sub>6</sub> over cryogenic temperature between 0 and 100 K. Phase Transitions, 2021, 94, 835-841.   | 1.3  | 14        |
| 12 | Linear optical characteristics as well as gamma-ray shielding capabilities of quaternary lithium-zinc borate glasses with Y <sup>3+</sup> ions. Optical Materials, 2022, 131, 112673.  | 3.6  | 13        |
| 13 | Bio-based antibacterial packaging from decorated bagasse papers with natural rosin and synthesised GO-Ag nanoparticles. Materials Technology, 2022, 37, 2766-2776.   | 3.0  | 12        |
| 14 | Novel negative capacitance, conductance at high and low frequencies in Au/Polypyrrole @MWCNT composite /TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /n-Si structure. Materials Research Express, 2021, 8, 075003.   | 1.6  | 11        |
| 15 | Er <sup>3+</sup> /Nd <sup>3+</sup> ions reinforced lead-borate glasses: an extensive investigation of physical, linear optical characteristics, and photon shielding capacity. Journal of Materials Research and Technology, 2021, 14, 3161-3170.  | 5.8  | 11        |
| 16 | Multivariable analysis for selection of natural fibers as fillers for a sustainable food packaging industry. Materials Research Express, 2021, 8, 095504.  | 1.6  | 10        |
| 17 | Synthesis, physical, ultrasonic waves, mechanical, FTIR, and dielectric characteristics of B <sub>2</sub> O <sub>3</sub> /Li <sub>2</sub> O/ZnO glasses doped with Y <sup>3+</sup> ions. Journal of Materials Science: Materials in Electronics, 2022, 33, 6603-6615.  | 2.2  | 10        |
| 18 | Investigation of structural, electrical and optical properties of chitosan/fullerene composites. Materials Research Express, 2019, 6, 125304.  | 1.6  | 9         |

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|----|--|-----|-----------|
| 19 | Gamma-ray shielding capacity of different B4C-, Re-, and Ni-based superalloys. <i>European Physical Journal Plus</i> , 2021, 136, 1.   | 2.6 | 9         |
| 20 | ZnO-Bi2O3-B2O3 glasses doped with rare earth oxides: Synthesis, physical, structural characteristics, neutron and photon attenuation attitude. <i>Optik</i> , 2021, 243, 167414.   | 2.9 | 9         |
| 21 | Modified 7-Chloro-11H-indeno[1,2-b]quinoxaline Heterocyclic System for Biological Activities. <i>Catalysts</i> , 2022, 12, 213.  | 3.5 | 9         |
| 22 | Magnetocaloric Effect in $\hat{\pm}$ -MnB Nanoparticles. <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, S101-S104.   | 0.6 | 9         |
| 23 | Bi2O3 reinforced B2O3+ $\hat{\pm}$ Sb2O3+ $\hat{\pm}$ Li2O: composition, physical, linear optical characteristics, and photon attenuation capacity. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 12439-12452.                             | 2.2 | 8         |
| 24 | Physical, FTIR, ultrasonic, and dielectric characteristics of calcium lead-borate glasses mixed by Nd2O3/Er2O3 rare earths: experimental study. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 19966-19979.                                 | 2.2 | 8         |
| 25 | Room-Temperature Wet Chemical Synthesis of Au NPs/TiH2/Nanocarved Ti Self-Supported Electrocatalysts for Highly Efficient H2 Generation. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 30115-30126.   | 8.0 | 7         |
| 26 | Fabrication, physical, FTIR, ultrasonic waves, and mechanical properties of quaternary B2O3+Bi2O3+NaF+ZrO2 glasses: Experimental study. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, .  | 2.3 | 7         |
| 27 | Fabrication, physical, mechanical properties, gamma-rays, and neutron shielding abilities of sodium bario-fluoride boro-vanadate glasses: experimental, theoretical, and simulation studies. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, . | 2.3 | 6         |
| 28 | Development of Natural Blends for Removal of Organic Pollutants. <i>Journal of Computational and Theoretical Nanoscience</i> , 2014, 11, 1891-1898.  | 0.4 | 5         |
| 29 | Development of Al+Mg+Si alloy performance by addition of grain refiner Al+5Ti+1B alloy. <i>Science Progress</i> , 2021, 104, 003685042110294.  | 1.9 | 5         |
| 30 | Fabrication, DFT modeling, and photoelectronic characterizations of novel pyridinylcarbonylquinoline for promising potential energy conversion. <i>Journal of Materials Research and Technology</i> , 2021, 14, 3092-3110.   | 5.8 | 5         |
| 31 | Tuning the optical and magnetic properties of ZnO by Fe <sub>3</sub> O <sub>4</sub> . <i>Physica Scripta</i> , 2022, 97, 075815.   | 2.5 | 5         |
| 32 | Microstructure and physical properties of melt spun Al-17wt.% Ni-10wt.% Cu alloy. <i>EPJ Applied Physics</i> , 2010, 50, 21301.  | 0.7 | 4         |
| 33 | Microstructure and Microhardness Evolutions of High Fe Containing Near-Eutectic Al-Si Rapidly Solidified Alloy. <i>Journal of Metallurgy</i> , 2014, 2014, 1-8.  | 1.1 | 4         |
| 34 | Enhancing thermal, viscoelastic, and optical properties of biodegradable fullerene(C60)/agarose/chitosan composite films for biotechnology. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.   | 2.3 | 4         |
| 35 | Synthesis, physical, linear optical and nuclear radiation shielding characteristics of B2O3+BaO+PbO+SrO2 glasses. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 18163-18177.   | 2.2 | 4         |
| 36 | Radiation shielding, optical, and physical properties of alkali borate glasses modified with Cu <sup>2+</sup> /Zn <sup>2+</sup> ions. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 19733-19741.   | 2.2 | 4         |

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|----|--|-----|-----------|
| 37 | Investigation of the iron doping on the structural, optical, and magnetic properties of Fe-doped ZnO nanoparticles synthesized by sol-gel method. Journal of Materials Science: Materials in Electronics, 2022, 33, 6368-6379.                           | 2.2 | 4         |
| 38 | Microstructure Properties of Rapidly Solidified Al-Zn-Mg-Cu Alloys. Indian Journal of Materials Science, 2014, 2014, 1-6.  | 0.6 | 3         |
| 39 | Tuned high dielectric constant, low dielectric loss tangent with positive and negative values for PPy/MWCNTs/TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /n-Si. Journal of Experimental Nanoscience, 2021, 16, 309-343.                             | 2.4 | 3         |
| 40 | The impact of Nd <sup>3+</sup> ions on linear/nonlinear and the ionizing radiation attenuation parameters of TeO <sub>2</sub> -PbO-Y <sub>2</sub> O <sub>3</sub> glasses. Journal of Materials Science: Materials in Electronics, 2021, 32, 17200-17219. | 2.2 | 3         |
| 41 | Negative series resistance and photo-response properties of Au/PPY-MWCNTs composite/TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> /n-Si/Al photodiode. Materials Research Express, 2022, 9, 016301.   | 1.6 | 3         |
| 42 | The influence of rapid solidification on the microstructure properties of Al-10Ni-10Ce alloy. European Physical Journal Plus, 2012, 127, 1.  | 2.6 | 1         |
| 43 | Microstructure and microhardness evolution of melt-spun Al-Si-Cu alloy. European Physical Journal Plus, 2014, 129, 1.  | 2.6 | 1         |
| 44 | Evolution of microstructure and physical properties of lead-free Sn <sup>5</sup> Sb-Ag rapidly solidified solder alloys. Applied Physics A: Materials Science and Processing, 2021, 127, 1.  | 2.3 | 1         |
| 45 | Fabrication, physical, thermal and optical properties of oxyfluoride glasses doped with rare earth oxides. Journal of Materials Science: Materials in Electronics, 2021, 32, 18951-18967.  | 2.2 | 1         |
| 46 | Synthesis, Structure Investigation, DFT Analysis And Dielectric Characterization of Substituted Pyridinylidenepropanedinitrile (CMHQCPP) Nanostructure: Novel Approach. Journal of Inorganic and Organometallic Polymers and Materials, 0, , 1.          | 3.7 | 1         |
| 47 | Enhanced optical and electrical properties of CeO <sub>2</sub> NPs/chitosan nanocomposites. Materials Research Express, 2022, 9, 055305.   | 1.6 | 1         |
| 48 | CeO <sub>2</sub> -doped bismosilicate-borotellurite glasses: linear/nonlinear optical properties as well as photon/neutron attenuation effectiveness. Journal of Materials Science: Materials in Electronics, 2022, 33, 14894-14909.                     | 2.2 | 1         |