

# Ashavani Kumar

## List of Publications by Year in descending order

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108  
papers

3,111  
citations

147726

31  
h-index

168321

53  
g-index

109  
all docs

109  
docs citations

109  
times ranked

5281  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Investigation into the Interaction between Surface-Bound Alkylamines and Gold Nanoparticles. Langmuir, 2003, 19, 6277-6282.  | 1.6 | 469       |
| 2  | Phase transfer of silver nanoparticles from aqueous to organic solutions using fatty amine molecules. Journal of Colloid and Interface Science, 2003, 264, 396-401.  | 5.0 | 156       |
| 3  | Photocatalytic degradation of methylene blue with Cu doped ZnS nanoparticles. Journal of Luminescence, 2014, 145, 6-12.  | 1.5 | 128       |
| 4  | Formation of Water-Dispersible Gold Nanoparticles Using a Technique Based on Surface-Bound Interdigitated Bilayers. Langmuir, 2003, 19, 1168-1172.   | 1.6 | 124       |
| 5  | Structural and optical study of Li doped CuO thin films on Si (100) substrate deposited by pulsed laser deposition. Applied Surface Science, 2014, 307, 280-286.   | 3.1 | 105       |
| 6  | Structural and photocatalytic studies of Mn doped TiO <sub>2</sub> nanoparticles. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2012, 98, 256-264.  | 2.0 | 91        |
| 7  | Gold Nanoparticles Assembled on Amine-Functionalized Na <sup>+</sup> Zeolite: A Biocompatible Surface for Enzyme Immobilization. Langmuir, 2003, 19, 3858-3863.  | 1.6 | 90        |
| 8  | DNA-mediated electrostatic assembly of gold nanoparticles into linear arrays by a simple drop-coating procedure. Applied Physics Letters, 2001, 78, 2943-2945.   | 1.5 | 81        |
| 9  | Highly Oriented Gold Nanoribbons by the Reduction of Aqueous Chloroaurate Ions by Hexadecylaniline Langmuir Monolayers. Chemistry of Materials, 2003, 15, 17-19.   | 3.2 | 79        |
| 10 | Sequential Electrostatic Assembly of Amine-Derivatized Gold and Carboxylic Acid-Derivatized Silver Colloidal Particles on Glass Substrates. Langmuir, 2000, 16, 6921-6926.   | 1.6 | 76        |
| 11 | Structural and optical properties of ZnO nanoparticles synthesized at different pH values. Journal of Alloys and Compounds, 2012, 539, 174-178.  | 2.8 | 69        |
| 12 | Structural, optical and ferroelectric behavior of CuO nanostructures synthesized at different pH values. Superlattices and Microstructures, 2013, 60, 129-138.   | 1.4 | 67        |
| 13 | Visible-light photocatalytic degradation of methylene blue with Fe doped CdS nanoparticles. Applied Surface Science, 2013, 270, 655-660.   | 3.1 | 66        |
| 14 | Photocatalytic degradation of methylene blue with Fe doped ZnS nanoparticles. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 113, 250-256.   | 2.0 | 65        |
| 15 | Amphoterization of Colloidal Gold Particles by Capping with Valine Molecules and Their Phase Transfer from Water to Toluene by Electrostatic Coordination with Fatty Amine Molecules. Langmuir, 2000, 16, 9775-9783. | 1.6 | 64        |
| 16 | Effect of NaOH molar concentration on morphology, optical and ferroelectric properties of hydrothermally grown CuO nanoplates. Materials Science in Semiconductor Processing, 2015, 38, 72-80.                       | 1.9 | 57        |
| 17 | Growth of Calcium Carbonate Crystals within Fatty Acid Bilayer Stacks. Langmuir, 2002, 18, 6075-6080.  | 1.6 | 56        |
| 18 | Photocatalytic studies of silver doped ZnO nanoparticles synthesized by chemical precipitation method. Journal of Sol-Gel Science and Technology, 2012, 63, 546-553.   | 1.1 | 55        |

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|----|---|-----|-----------|
| 19 | Structural and optical characterization of Zn doped TiO <sub>2</sub> nanoparticles prepared by sol-gel method. Journal of Sol-Gel Science and Technology, 2012, 61, 585-591.  | 1.1 | 52        |
| 20 | Fragmentation cross sections of Fe <sup>26+</sup> , Si <sup>14+</sup> and C <sup>6+</sup> ions of 0.3×10 on polyethylene, CR39 and aluminum targets. Nuclear Physics A, 2008, 807, 206-213.   | 0.6 | 50        |
| 21 | Structural, morphological and optical study of Li doped ZnO thin films on Si (100) substrate deposited by pulsed laser deposition. Ceramics International, 2014, 40, 11915-11923.   | 2.3 | 48        |
| 22 | Synthesis of Ag/Pd Nanoparticles and Their Low-Temperature Alloying within Thermally Evaporated Fatty Acid Films. Journal of Physical Chemistry B, 2002, 106, 297-302.  | 1.2 | 47        |
| 23 | Phase Transfer of Aqueous CdS Nanoparticles by Coordination with Octadecanethiol Molecules Present in Nonpolar Organic Solvents. Langmuir, 2000, 16, 9299-9302.   | 1.6 | 44        |
| 24 | Magnetic monopole search at high altitude with the SLIM experiment. European Physical Journal C, 2008, 55, 57-63.   | 1.4 | 44        |
| 25 | Morphology of BaSO <sub>4</sub> Crystals Grown on Templates of Varying Dimensionality: The Case of Cysteine-Capped Gold Nanoparticles (0-D), DNA (1-D), and Lipid Bilayer Stacks (2-D). Crystal Growth and Design, 2002, 2, 197-203.  | 1.4 | 37        |
| 26 | Results of the search for strange quark matter and Q-balls with the SLIM experiment. European Physical Journal C, 2008, 57, 525-533.  | 1.4 | 37        |
| 27 | Effect of NaOH molar concentration on optical and ferroelectric properties of ZnO nanostructures. Applied Surface Science, 2015, 356, 438-446.  | 3.1 | 37        |
| 28 | Structural, optical and ferroelectric behavior of hydrothermally grown ZnO nanostructures. Superlattices and Microstructures, 2013, 64, 331-342.  | 1.4 | 36        |
| 29 | Variation in morphology of gold nanoparticles synthesized by the spontaneous reduction of aqueous chloroaurate ions by alkylated tyrosine at a liquid-liquid and air-water interface. Journal of Materials Chemistry, 2004, 14, 2696. | 6.7 | 35        |
| 30 | Phase transfer of platinum nanoparticles from aqueous to organic solutions using fatty amine molecules. Journal of Chemical Sciences, 2004, 116, 293-300.   | 0.7 | 34        |
| 31 | Energy storage properties of double perovskites Gd <sub>2</sub> NiMnO <sub>6</sub> for electrochemical supercapacitor application. Solid State Sciences, 2020, 105, 106252.   | 1.5 | 34        |
| 32 | Acoustic emission characteristics and b-value estimate in relation to waveform analysis for damage response of snow. Cold Regions Science and Technology, 2015, 119, 170-182.   | 1.6 | 33        |
| 33 | Growth of thermally evaporated SnO <sub>2</sub> nanostructures for optical and humidity sensing application. Sensors and Actuators B: Chemical, 2014, 201, 369-377.   | 4.0 | 31        |
| 34 | Moon and Sun shadowing effect in the MACRO detector. Astroparticle Physics, 2003, 20, 145-156.  | 1.9 | 29        |
| 35 | Enhanced photocatalytic performance of m-WO <sub>3</sub> and m-Fe-doped WO <sub>3</sub> cuboids synthesized via sol-gel approach using egg albumen as a solvent. Materials Science in Semiconductor Processing, 2019, 104, 104690.    | 1.9 | 29        |
| 36 | Synthesis, structural and photocatalytic studies of Mn-doped CdS nanoparticles. Research on Chemical Intermediates, 2013, 39, 645-657.  | 1.3 | 25        |

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|----|---|-----|-----------|
| 37 | Structural, optical, and ferroelectric behavior of Zn <sub>1-x</sub> Li <sub>x</sub> O (0 ≤ x ≤ 0.09) nanostructures. Journal of Alloys and Compounds, 2014, 585, 345-351.  | 2.8 | 23        |
| 38 | MoS <sub>2</sub> nanoparticle/activated carbon composite as a dual-band material for absorbing microwaves. Nanoscale Advances, 2021, 3, 4196-4206.  | 2.2 | 22        |
| 39 | Low temperature crystalline Ag-Ni alloy formation from silver and nickel nanoparticles entrapped in a fatty acid composite film. Applied Physics Letters, 2001, 79, 3314-3316.                                      | 1.5 | 21        |
| 40 | Structural and optical characterization of Ag-doped TiO <sub>2</sub> nanoparticles prepared by a sol-gel method. Research on Chemical Intermediates, 2012, 38, 1443-1453.   | 1.3 | 18        |
| 41 | Excellent microwave absorbing and electromagnetic shielding performance of grown MWCNT on activated carbon bifunctional composite. Carbon, 2022, 198, 151-161.  | 5.4 | 18        |
| 42 | Structures and optical properties of Zn <sub>1-x</sub> Ni <sub>x</sub> O nanoparticles by coprecipitation method. Research on Chemical Intermediates, 2012, 38, 1483-1493.  | 1.3 | 17        |
| 43 | Activated carbon derived from mango leaves as an enhanced microwave absorbing material. Sustainable Materials and Technologies, 2021, 27, e00244.   | 1.7 | 17        |
| 44 | Structural, optical and photocatalytic studies of Fe doped ZnS nanoparticles. Journal of Sol-Gel Science and Technology, 2013, 67, 376-383.   | 1.1 | 16        |
| 45 | Search for intermediate mass magnetic monopoles and nuclearites with the SLIM experiment. Radiation Measurements, 2005, 40, 405-409.  | 0.7 | 15        |
| 46 | The dielectric behavior of Zn <sub>1-x</sub> Ni <sub>x</sub> O/NiO two-phase composites. Journal Physics D: Applied Physics, 2014, 47, 435305.  | 1.3 | 15        |
| 47 | Engineered perovskite LaCoO <sub>3</sub> /rGO nanocomposites for asymmetrical electrochemical supercapacitor application. Journal of Materials Science: Materials in Electronics, 2022, 33, 2590-2606.              | 1.1 | 14        |
| 48 | Calibration of the Makrofol-DE nuclear track detector using relativistic lead ions. Radiation Measurements, 2005, 40, 433-436.  | 0.7 | 13        |
| 49 | Influence of silver and graphite on zinc oxide nanostructures for optical application. Optical Materials, 2013, 35, 1335-1341.  | 1.7 | 13        |
| 50 | Experimental measurements of acoustical properties of snow and inverse characterization of its geometrical parameters. Applied Acoustics, 2016, 101, 15-23.   | 1.7 | 13        |
| 51 | Enhanced microwave absorption properties of Co and Ni co-doped iron (II,III)/reduced graphene oxide composites at X-band frequency. Journal of Materials Science: Materials in Electronics, 2019, 30, 19325-19334.  | 1.1 | 13        |
| 52 | Study of optical And Ferroelectric Behavior Of ZnO Nanostructures. Advanced Materials Letters, 2013, 4, 220-224.  | 0.3 | 13        |
| 53 | Water-dispersible nanoparticles via interdigitation of sodium dodecylsulphate molecules in octadecylamine-capped gold nanoparticles at a liquid-liquid interface. Journal of Chemical Sciences, 2003, 115, 679-687. | 0.7 | 12        |
| 54 | Multi-sensor couplers and waveguides for efficient detection of acoustic emission behavior of snow. Cold Regions Science and Technology, 2014, 101, 1-13.   | 1.6 | 12        |

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|----|--|-----|-----------|
| 55 | Synthesis of N and F co-doped TiO <sub>2</sub> nanophotocatalysts for degradation of malathion in water. <i>Research on Chemical Intermediates</i> , 2017, 43, 387-399.  | 1.3 | 12        |
| 56 | Study of photoluminescence and nonlinear optical behaviour of AgCu nanoparticles for nanophotonics. <i>Nano Structures Nano Objects</i> , 2021, 28, 100807.  | 1.9 | 11        |
| 57 | Organoamine Templated Multifunctional Hybrid Metal Phosphonate Frameworks: Promising Candidates for Tailoring Electrochemical Behaviors and Size-Selective Efficient Heterogeneous Lewis Acid Catalysis. <i>Inorganic Chemistry</i> , 2022, 61, 9580-9594. | 1.9 | 11        |
| 58 | Nickel-induced structural, optical, magnetic, and electrical behavior of Fe <sub>2</sub> O <sub>3</sub> . <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 1552-1557.   | 0.7 | 10        |
| 59 | Facile synthesis of bulk SnO <sub>2</sub> and ZnO tetrapod based graphene nanocomposites for optical and sensing application. <i>Materials Chemistry and Physics</i> , 2017, 201, 372-383.   | 2.0 | 10        |
| 60 | Microstructural evolution and photoluminescence performance of nickel and chromium doped ZnO nanostructures. <i>Materials Chemistry and Physics</i> , 2018, 205, 9-15.   | 2.0 | 10        |
| 61 | Novel green photo-catalyst "turmeric roots"™ for pesticides degradation: Preparation and characterizations. <i>Materials Letters</i> , 2020, 262, 127030.  | 1.3 | 10        |
| 62 | Effect of Nanographite on Electrical Mechanical and Wear Characteristics of Graphite Epoxy Composites. <i>Defence Science Journal</i> , 2020, 70, 306-312.   | 0.5 | 10        |
| 63 | Formation of platinum nanoparticles at air-water interfaces by the spontaneous reduction of subphase chloroplatinate anions by hexadecylaniline Langmuir monolayers. <i>Journal of Colloid and Interface Science</i> , 2004, 271, 381-387.                 | 5.0 | 9         |
| 64 | Biogenesis of PbS Nanocrystals by Using Rhizosphere Fungus i.e., <i>Aspergillus</i> sp. Isolated from the Rhizosphere of Chickpea. <i>BioNanoScience</i> , 2014, 4, 189-194.   | 1.5 | 9         |
| 65 | Structural, Optical, and Ferroelectric Behaviors of Cu <sub>1-x</sub> Li <sub>x</sub> O (0 ≤ x ≤ 0.09) Nanostructures. <i>Acta Metallurgica Sinica (English Letters)</i> , 2014, 27, 306-312.  | 1.5 | 9         |
| 66 | Multifunctional silanized silica nanoparticle functionalized graphene oxide: polyetherimide composite film for EMI shielding applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 14122-14131.                          | 1.1 | 8         |
| 67 | Trace uranium analysis of water from the south-west coastal region of India. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1994, 178, 245-251.   | 0.7 | 7         |
| 68 | Crystallization of SrCO <sub>3</sub> within thermally evaporated fatty acid films: unusual morphology of crystal aggregates. <i>CrystEngComm</i> , 2001, 3, 81.  | 1.3 | 7         |
| 69 | Study of CuO Nanoparticles Synthesized by Sol-gel Method. <i>AIP Conference Proceedings</i> , 2011, , .  | 0.3 | 7         |
| 70 | Fragmentation cross-section of 600 A MeV Si <sup>14+</sup> ions in thick polyethylene target. <i>European Physical Journal A</i> , 2013, 49, 1.  | 1.0 | 7         |
| 71 | Biomass-Derived Activated Carbon/Epoxy Composite as Microwave Absorbing Material. <i>Journal of Electronic Materials</i> , 2022, 51, 2918-2925.  | 1.0 | 7         |
| 72 | Lamellar multilayer hexadecylaniline-modified gold nanoparticle films deposited by the Langmuir-Blodgett technique. <i>Journal of Chemical Sciences</i> , 2003, 115, 185-193.  | 0.7 | 6         |

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|----|--|-----|-----------|
| 73 | Calibration of CR39 detectors with new system for Fe <sup>26+</sup> ion beam and measurement of total charge changing cross-section in Al target. Radiation Measurements, 2012, 47, 1023-1029.   | 0.7 | 6         |
| 74 | Validation of Geant4 physics models for <sup>56</sup> Fe ion beam in various media. Nuclear Instruments & Methods in Physics Research B, 2012, 291, 7-11.  | 0.6 | 6         |
| 75 | Simulation of depth dose distributions for various ions in polyethylene medium. Advances in Space Research, 2012, 49, 1691-1697.   | 1.2 | 6         |
| 76 | Phase transformation in wet chemically synthesized Y <sub>2</sub> NiFeO <sub>6</sub> , and its magnetic and energy storage properties. Applied Physics A: Materials Science and Processing, 2020, 126, 1.  | 1.1 | 6         |
| 77 | Structural, Dielectric, and Energy Storage Properties of Citric Acid and Ethylene Glycol Assisted Hydrothermally Synthesized Y <sub>2</sub> FeCoO <sub>6</sub> . Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000324. | 0.8 | 6         |
| 78 | Excellent microwave absorbing performance of biomass-derived activated carbon decorated with <i>in situ</i> -grown CoFe <sub>2</sub> O <sub>4</sub> nanoparticles. Materials Advances, 2022, 3, 2533-2545.   | 2.6 | 6         |
| 79 | Microanalysis of uranium in Antarctica soil samples using fission track method. Journal of Radioanalytical and Nuclear Chemistry, 1995, 191, 381-386.  | 0.7 | 5         |
| 80 | Modification in mechanical, tribological & electrical properties of epoxy at low weight fraction of multiwalled carbon nanotube. Materials Today: Proceedings, 2020, 26, 1836-1840.  | 0.9 | 5         |
| 81 | Morphology of BaSO <sub>4</sub> crystals grown at the liquid-liquid interface. CrystEngComm, 2001, 3, 213.   | 1.3 | 4         |
| 82 | First results of the CAKE experiment. Radiation Measurements, 2003, 36, 335-338.   | 0.7 | 4         |
| 83 | Anion intercalation pseudo-capacitance performance of oxygen-deficient double perovskite prepared via facile wet chemical route. Materials Science in Semiconductor Processing, 2022, 138, 106300.   | 1.9 | 4         |
| 84 | Analog ensemble (AE) systems for real time quantitative precipitation forecasts (QPFs) for different forecast lead times at local scale over the north-west Himalaya (NWH), India. Meteorology and Atmospheric Physics, 2021, 133, 533-552.        | 0.9 | 3         |
| 85 | Effect of calcinations on structural, optical and photocatalytic properties of a green photo-catalyst "turmeric roots powder". Optik, 2020, 216, 164804.   | 1.4 | 3         |
| 86 | Effect of In additive on the photosensitivity of glassy Se <sub>80</sub> Te <sub>20</sub> alloy. Journal of Modern Optics, 2009, 56, 1272-1275.  | 0.6 | 2         |
| 87 | Response of CR39 detector to 5A GeV Si <sup>14+</sup> ions and measurement of total charge changing cross-section. Radiation Physics and Chemistry, 2013, 92, 8-13.  | 1.4 | 2         |
| 88 | Impedance modeling for classification of flavored green teas. Turkish Journal of Electrical Engineering and Computer Sciences, 2015, 23, 2208-2214.  | 0.9 | 2         |
| 89 | The impacts of the approaching western disturbances (WDs) on the surface meteorological variables over the north-west Himalaya (NWH), India. Journal of Earth System Science, 2019, 128, 1.  | 0.6 | 2         |
| 90 | Symmetric/asymmetric energy storage device of reduced graphene oxide assisted LaNi <sub>0.9</sub> Co <sub>0.1</sub> O <sub>3</sub> perovskite nanomaterials. Applied Physics A: Materials Science and Processing, 2021, 127, 1.                    | 1.1 | 2         |

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|-----|---|-----|-----------|
| 91  | An extensive study of depth dose distribution and projectile fragmentation cross-section for shielding materials using Geant4. Applied Radiation and Isotopes, 2022, 180, 110068.                                   | 0.7 | 2         |
| 92  | Synthesis And Optical Properties Of Nickel Doped Zinc Oxide Nanoparticles. , 2011, , .  |     | 1         |
| 93  | Study of Trapping Density in Electrical Characteristics of CdTe Thin films. , 2011, , .   |     | 1         |
| 94  | Structural and optical studies of CuO nanostructures. , 2014, , .   |     | 1         |
| 95  | Comparative study of depth dose-distributions and partial fragmentation cross sections of $^{56}\text{Fe}$ ions on polyethylene using GEANT4. Nuclear Instruments & Methods in Physics Research B, 2014, 328, 8-13. | 0.6 | 1         |
| 96  | The photocatalytic investigation of methylene blue dye with Cr doped zinc oxide nanoparticles. AIP Conference Proceedings, 2015, , .  | 0.3 | 1         |
| 97  | Effect of $\text{Sr}^{2+}$ , $\text{Ba}^{2+}$ and $\text{Ta}^{5+}$ Ions on Structural and Electrical Properties of BNKT Ceramics. Materials Today: Proceedings, 2015, 2, 2784-2788.                                 | 0.9 | 1         |
| 98  | Quality of local scale surface weather analogs over the north-west Himalaya (NWH), India. Journal of Earth System Science, 2019, 128, 1.  | 0.6 | 1         |
| 99  | Spatio-temporal variability of binary weather patterns and precipitation amounts of short time intervals during winter period over the north-west Himalaya (NWH). Journal of Earth System Science, 2019, 128, 1.    | 0.6 | 1         |
| 100 | Computational study of fragmentation cross-sections for $^{28}\text{Si}$ ions in various media using GEANT4. Nuclear Instruments & Methods in Physics Research B, 2020, 464, 5-11.                                  | 0.6 | 1         |
| 101 | L-cysteine functionalized graphene quantum dots for sub-ppb detection of As (III). Nanotechnology, 2021, 33, .  | 1.3 | 1         |
| 102 | Structural and optical studies of Sr and Mn doped ZnO nanoparticles. , 2013, , .  |     | 0         |
| 103 | Investigation of variation of energy of laser beam on structural, electrical and optical properties of pulsed laser deposited CuO thin films. , 2014, , .   |     | 0         |
| 104 | Investigation of structural, optical and photocatalytic properties of $\text{W}(0.99)\text{Pd}(0.01)\text{O}_3$ nanoparticles. AIP Conference Proceedings, 2019, , .  | 0.3 | 0         |
| 105 | The synthesis, structural, optical and electrical characterizations of double perovskite oxide $\text{Y}_2\text{CuCoO}_5$ . AIP Conference Proceedings, 2020, , .   | 0.3 | 0         |
| 106 | Fragmentation cross-section study of $^{28}\text{Si}$ ions on $^{12}\text{C}$ target with simulation toolkit GEANT4. AIP Conference Proceedings, 2020, , .  | 0.3 | 0         |
| 107 | Monte Carlo simulation study for proton therapy at energy range $62\text{ MeV} \leq E < 240\text{ MeV}$ using GEANT4. AIP Conference Proceedings, 2021, , .   | 0.3 | 0         |
| 108 | Quality of Local Scale Surface Weather Analogs in Two Climatologically and Geographically Distinct Mountainous Regions. Meteorology and Atmospheric Physics, 2022, 134, 1.  | 0.9 | 0         |