

# Abbas Khan

## List of Publications by Year in descending order

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Version: 2024-02-01

89  
papers

1,968  
citations

279487

23  
h-index

276539

41  
g-index

91  
all docs

91  
docs citations

91  
times ranked

1977  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Highly efficient degradation of 2,4-dichlorophenol over CeO <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> composites under visible-light irradiation: Detailed reaction pathway and mechanism. <i>Journal of Hazardous Materials</i> , 2019, 364, 635-644.  | 6.5  | 152       |
| 2  | Synthesis of S-Doped porous g-C <sub>3</sub> N <sub>4</sub> by using ionic liquids and subsequently coupled with Au-TiO <sub>2</sub> for exceptional cocatalyst-free visible-light catalytic activities. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 1082-1090.                        | 10.8 | 151       |
| 3  | Superabsorbent polymer hydrogels with good thermal and mechanical properties for removal of selected heavy metal ions. <i>Journal of Cleaner Production</i> , 2018, 201, 78-87.   | 4.6  | 139       |
| 4  | Fabrication of BiFeO <sub>3</sub> -g-C <sub>3</sub> N <sub>4</sub> -WO <sub>3</sub> Z-scheme heterojunction as highly efficient visible-light photocatalyst for water reduction and 2,4-dichlorophenol degradation: Insight mechanism. <i>Journal of Hazardous Materials</i> , 2020, 397, 122708. | 6.5  | 102       |
| 5  | A Review of Supercapacitors: Materials Design, Modification, and Applications. <i>Energies</i> , 2021, 14, 7779.  | 1.6  | 94        |
| 6  | Optimization on wear performance of UHMWPE composites using response surface methodology. <i>Tribology International</i> , 2015, 88, 252-262.   | 3.0  | 81        |
| 7  | Comparative study of wear performance of particulate and fiber-reinforced nano-ZnO/ultra-high molecular weight polyethylene hybrid composites using response surface methodology. <i>Materials &amp; Design</i> , 2014, 63, 805-819.  | 5.1  | 75        |
| 8  | Fabrication of stable superabsorbent hydrogels for successful removal of crystal violet from waste water. <i>RSC Advances</i> , 2019, 9, 40051-40061.   | 1.7  | 63        |
| 9  | Synthesis, Characterization, and Silver Nanoparticles Fabrication in N-isopropylacrylamide-Based Polymer Microgels for Rapid Degradation of p-Nitrophenol. <i>Journal of Dispersion Science and Technology</i> , 2013, 34, 1324-1333.   | 1.3  | 58        |
| 10 | Experimental and DFT Studies of Au Deposition Over WO <sub>3</sub> /g-C <sub>3</sub> N <sub>4</sub> Z-Scheme Heterojunction. <i>Nano-Micro Letters</i> , 2020, 12, 7.   | 14.4 | 57        |
| 11 | Bismuth-Graphene Nanohybrids: Synthesis, Reaction Mechanisms, and Photocatalytic Applications – A Review. <i>Energies</i> , 2021, 14, 2281.   | 1.6  | 51        |
| 12 | Preparation, Functionalization, Modification, and Applications of Nanostructured Gold: A Critical Review. <i>Energies</i> , 2021, 14, 1278.   | 1.6  | 42        |
| 13 | A rational design of g-C <sub>3</sub> N <sub>4</sub> -based ternary composite for highly efficient H <sub>2</sub> generation and 2,4-DCP degradation. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 484-496.   | 5.0  | 38        |
| 14 | Temperature-induced volume change and glucose sensitivity of poly[(N-isopropylacrylamide)-Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 1481-1486.  | 1.6  | 37        |
| 15 | Fabrication of silver nanoparticles in poly (N-isopropylacrylamide-co-allylacetic acid) microgels for catalytic reduction of nitroarenes. <i>Turkish Journal of Chemistry</i> , 2015, 39, 576-588.  | 0.5  | 37        |
| 16 | Synthesis and physicochemical investigation of chitosan-PMAA-based dual-responsive hydrogels. <i>Journal of Polymer Research</i> , 2013, 20, 1.   | 1.2  | 34        |
| 17 | Fabrication of silver nanoparticles in pH responsive polymer microgel dispersion for catalytic reduction of nitrobenzene in aqueous medium. <i>Russian Journal of Physical Chemistry A</i> , 2016, 90, 2600-2608.   | 0.1  | 33        |
| 18 | Synthesis of physically cross-linked gum Arabic-based polymer hydrogels with enhanced mechanical, load bearing and shape memory behavior. <i>Iranian Polymer Journal (English Edition)</i> , 2020, 29, 351-360.   | 1.3  | 30        |

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|----|--|-----|-----------|
| 19 | Properly aligned band structures in B-TiO <sub>2</sub> /MIL53(Fe)/g-C <sub>3</sub> N <sub>4</sub> ternary nanocomposite can drastically improve its photocatalytic activity for H <sub>2</sub> evolution: Investigations based on the experimental results. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 21912-21923. | 3.8 | 29        |
| 20 | Effect of multi walled carbon nanotubes and diamond nanoparticles on the structure and properties of carbon foams. <i>Diamond and Related Materials</i> , 2017, 79, 119-126.   | 1.8 | 28        |
| 21 | Enhanced photocatalytic performance of novel MIL53Sr metal-organic framework (MOF) for RhB dye degradation and H <sub>2</sub> evolution by coupling MIL53Fe. <i>Solar Energy</i> , 2021, 215, 121-130.   | 2.9 | 26        |
| 22 | Thermal properties and kinetic investigation of chitosan-PMAA based dual-responsive hydrogels. <i>Industrial Crops and Products</i> , 2015, 66, 178-187.   | 2.5 | 25        |
| 23 | Controlled release studies through chitosan-based hydrogel synthesized at different polymerization stages. <i>International Journal of Biological Macromolecules</i> , 2019, 128, 531-536.   | 3.6 | 24        |
| 24 | Structural Characteristics and Environmental Applications of Covalent Organic Frameworks. <i>Energies</i> , 2021, 14, 2267.  | 1.6 | 24        |
| 25 | Preparation, physicochemical and stability studies of chitosan-PNIPAM based responsive microgels under various pH and temperature conditions. <i>Iranian Polymer Journal (English Edition)</i> , 2015, 24, 317-328.  | 1.3 | 23        |
| 26 | Preparation of Pd@Ni Nanoparticles Supported on Activated Carbon for Efficient Removal of Basic Blue 3 from Water. <i>Water (Switzerland)</i> , 2021, 13, 1211.  | 1.2 | 22        |
| 27 | Synthesis, physicochemical studies and potential applications of high-molecular-weight ferrocene-based poly(azomethine)ester and its soluble terpolymers. <i>Journal of Organometallic Chemistry</i> , 2012, 719, 41-53.   | 0.8 | 21        |
| 28 | Intermolecular Interactions of Polymer/Surfactants Mixture in Aqueous Solution Investigated by Various Techniques. <i>Journal of Dispersion Science and Technology</i> , 2013, 34, 1202-1210.  | 1.3 | 20        |
| 29 | Synthesis and functionalization of chitosan built hydrogel with induced hydrophilicity for extended release of sparingly soluble drugs. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2018, 29, 376-396.   | 1.9 | 18        |
| 30 | A comparative study of the adsorption of congo red dye on rice husk, rice husk char and chemically modified rice husk char from aqueous media. <i>Bulletin of the Chemical Society of Ethiopia</i> , 2020, 34, 41-54.  | 0.5 | 18        |
| 31 | Confinement of Au, Pd and Pt nanoparticle with reduced sizes: Significant improvement of dispersion degree and catalytic activity. <i>Microporous and Mesoporous Materials</i> , 2022, 337, 111927.  | 2.2 | 18        |
| 32 | Preparation and Chemical Modification of Rice Husk Char for the Removal of a Toxic Dye (Orange G) from Aqueous Medium. <i>Zeitschrift Fur Physikalische Chemie</i> , 2019, 233, 375-392.   | 1.4 | 17        |
| 33 | Phytosynthesis of poly (ethylene glycol) methacrylate-hybridized gold nanoparticles from <i>C. tuberculata</i> : their structural characterization and potential for in vitro growth in banana. <i>In Vitro Cellular and Developmental Biology - Plant</i> , 2021, 57, 248-260.  | 0.9 | 17        |
| 34 | Surface activity and micellar behavior of dimethylamino- and trimethylammonium- tipped oxyethylene-oxybutylene diblock copolymers in aqueous media. <i>Journal of Applied Polymer Science</i> , 2010, 118, 3324-3332.  | 1.3 | 16        |
| 35 | Study on the preparation and properties of novel block copolymeric materials based on structurally modified organometallic as well as organic polyamides and polydimethylsiloxane. <i>Polymer International</i> , 2013, 62, 319-334.   | 1.6 | 15        |
| 36 | Kinetic investigation and lifetime prediction of Cs@NIPAM@MBA-based thermo-responsive hydrogels. <i>Carbohydrate Polymers</i> , 2016, 136, 1182-1193.  | 5.1 | 15        |

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|----|---|-----|-----------|
| 37 | Vertically grown CeO <sub>2</sub> and TiO <sub>2</sub> nanoparticles over the MIL53Fe MOF as proper band alignments for efficient H <sub>2</sub> generation and 2,4-DCP degradation. <i>Environmental Science and Pollution Research</i> , 2022, 29, 34861-34873.     | 2.7 | 15        |
| 38 | Synthesis, characterisation and thermal properties of hyperbranched polyimide derived from melamine via emulsion polymerisation. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 120, 1785-1798.   | 2.0 | 14        |
| 39 | Synthesis, characterization and physicochemical investigation of chitosan-based multi-responsive Copolymeric hydrogels. <i>Journal of Polymer Research</i> , 2017, 24, 1.   | 1.2 | 13        |
| 40 | One-Pot Synthesis and Rheological Study of Cationic Poly (3-acrylamidopropyltrimethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (a 1145-1159.  | 1.4 | 13        |
| 41 | Effect of Temperature, Polymer, and Salts on the Interfacial and Micellization Behavior of 3-Dodecyl-1-Methyl-1 <i>H</i> -Imidazol-3-ium-Bromide: A Dispersion of a Long-Chain Ionic Liquid. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 723-730. | 1.3 | 12        |
| 42 | Overview of Polyethylene Glycol-based Materials with a Special Focus on Core-Shell Particles for Drug Delivery Application. <i>Current Pharmaceutical Design</i> , 2022, 28, 352-367.   | 0.9 | 12        |
| 43 | Synthesis, Molecular Modeling and Biological Evaluation of 5-arylidene-N,N-diethylthiobarbiturates as Potential $\alpha$ -glucosidase Inhibitors. <i>Medicinal Chemistry</i> , 2019, 15, 175-185.   | 0.7 | 12        |
| 44 | Associative properties of hydrophilic tip modified oxyethylene $\alpha$ -oxybutylene diblock copolymers in aqueous media: Effect of end $\alpha$ group. <i>Journal of Applied Polymer Science</i> , 2012, 124, 951-957.   | 1.3 | 11        |
| 45 | Micellar parameters of diblock copolymers and their interactions with ionic surfactants. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2012, 30, 217-226.   | 2.0 | 11        |
| 46 | Effect of Hydrophilic/Hydrophobic Block Ratio and Temperature on the Surface and Associative Properties of Oxyethylene and Oxybutylene Diblock Copolymers in Aqueous Media. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 1777-1785.                | 1.3 | 11        |
| 47 | Spectroscopic study of benzothiophene partitioning in sodium dodecyl sulfate and cetyl trimethyl ammonium bromide micellar media. <i>Journal of Surfactants and Detergents</i> , 2016, 19, 1033-1041.   | 1.0 | 10        |
| 48 | Characterization of Surfactant-Diblock Copolymer Interactions and Its Thermodynamic Studies. <i>Journal of Dispersion Science and Technology</i> , 2012, 33, 792-798.   | 1.3 | 9         |
| 49 | Synthesis and Characterizations of PdNi Carbon Supported Nanomaterials: Studies of Electrocatalytic Activity for Oxygen Reduction in Alkaline Medium. <i>Molecules</i> , 2021, 26, 3440.  | 1.7 | 9         |
| 50 | Green synthesis, characterization and biological activities of silver nanoparticles using the bark extract of <i>Ailanthus altissima</i> . <i>Materials Science-Poland</i> , 2017, 36, 21-26.   | 0.4 | 9         |
| 51 | $\text{CuO}@\text{SiO}_2$ based nanocomposites: Synthesis, characterization, photocatalytic, antileishmanial, and antioxidant studies. <i>Journal of the Chinese Chemical Society</i> , 2022, 69, 1637-1653.  | 0.8 | 9         |
| 52 | The Kinetics and Equilibrium Thermodynamics Study on the Removal of Direct Blue and Titan Yellow Dyes from Aqueous Media by Modified Rice Husk Char. <i>Zeitschrift Fur Physikalische Chemie</i> , 2020, 234, 485-503.  | 1.4 | 8         |
| 53 | The green synthesis of fine particles of gold using an aqueous extract of <i>Monothecha buxifolia</i> (Flac.). <i>Russian Journal of Physical Chemistry A</i> , 2016, 90, 2625-2632.  | 0.1 | 7         |
| 54 | Green Synthesis of Silver Nanoparticles Using an Aqueous Extract of <i>Monothecha buxifolia</i> (Flac.) Dcne. <i>Russian Journal of Physical Chemistry A</i> , 2018, 92, 124-131.   | 0.1 | 7         |

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|----|---|-----|-----------|
| 55 | Hybridization of green synthesized silver nanoparticles with poly(ethylene glycol) methacrylate and their biomedical applications. <i>PeerJ</i> , 2022, 10, e12540.   | 0.9 | 7         |
| 56 | Poly (N-vinyl formamide-co-acrylamide) hydrogels: synthesis, composition and rheology. <i>Iranian Polymer Journal (English Edition)</i> , 2022, 31, 845-856.  | 1.3 | 7         |
| 57 | Effect of end-group modification, hydrophilic/hydrophobic block ratio and temperature on the surface, associative and thermodynamic behaviour of poly(ethylene oxide)-b-poly(butylene oxide) diblock copolymers in aqueous media. <i>Journal of Polymer Research</i> , 2014, 21, 1. | 1.2 | 6         |
| 58 | Preparation and functionalization of zinc oxide nanoparticles with polymer microgels for potential catalytic applications. <i>Journal of Dispersion Science and Technology</i> , 2022, 43, 259-272.   | 1.3 | 6         |
| 59 | Effective performance of CeO <sub>2</sub> based silica for preparation of octanal. <i>Journal of Porous Materials</i> , 2020, 27, 1101-1108.  | 1.3 | 6         |
| 60 | Effect of end-group modification on the adsorption of poly(ethylene oxide)-b-poly(butylene oxide) diblock copolymers at the solid-liquid interface. <i>Polymer Bulletin</i> , 2010, 65, 521-531.  | 1.7 | 5         |
| 61 | Interactions of Ionic Surfactants With PEO-PBO-PEO Triblock Copolymers in Aqueous Solutions. <i>Journal of Dispersion Science and Technology</i> , 2012, 33, 191-199.   | 1.3 | 5         |
| 62 | Associative, thermodynamic and thermo-kinetics behavior of di- and triblock copolymers of oxyethylene and oxybutylene in aqueous media. <i>Thermochimica Acta</i> , 2014, 595, 51-60.   | 1.2 | 5         |
| 63 | Preparation and Physicochemical Characterization of Dual Responsive and Chemically Modified Cellulose Based Copolymer Hydrogels. <i>Zeitschrift Fur Physikalische Chemie</i> , 2020, 234, 1623-1643.  | 1.4 | 5         |
| 64 | Preparation and Characterization of Agar Based Magnetic Nanocomposite for Potential Biomedical Applications. <i>Current Pharmaceutical Design</i> , 2019, 25, 3672-3680.  | 0.9 | 5         |
| 65 | Physicochemical Investigation of the Micellar Behavior of a Diblock (PEO) <sub>62</sub> -b-(PBO) <sub>33</sub> Copolymer in Water and its Interaction with Ionic Surfactants. <i>Journal of Dispersion Science and Technology</i> , 2016, 37, 519-529.                              | 1.3 | 4         |
| 66 | Physicochemical Study of Some Thiobarbiturate Derivatives and Their Interaction with DNA in Aqueous Media. <i>Russian Journal of Physical Chemistry A</i> , 2018, 92, 1987-1995.  | 0.1 | 4         |
| 67 | Physicochemical Investigation of Some Thiobarbiturate Derivatives and Their Binding Study with Deoxyribonucleic Acid. <i>Russian Journal of Physical Chemistry B</i> , 2018, 12, 485-494.   | 0.2 | 4         |
| 68 | Thermo-chemical conversion of waste glass into non-vitreous porous material for adsorption application. <i>Journal of Material Cycles and Waste Management</i> , 2019, 21, 1132-1143.   | 1.6 | 4         |
| 69 | Effect of Experimental Variables on the Physicochemical Characteristics of Multi-Responsive Cellulose Based Polymer Microgels. <i>Russian Journal of Physical Chemistry A</i> , 2020, 94, 1503-1514.  | 0.1 | 4         |
| 70 | Catalytic Effect of 1,4-Dioxane on the Kinetics of the Oxidation of Iodide by Dicyanobis(bipyridine)iron(III) in Water. <i>Catalysts</i> , 2021, 11, 840.   | 1.6 | 4         |
| 71 | Assessing the physico-chemical parameters and some metals of underground water and associated soil in the arid and semiarid regions of Tank District, Khyber Pakhtunkhwa, Pakistan. <i>Environmental Monitoring and Assessment</i> , 2021, 193, 610.                                | 1.3 | 4         |
| 72 | Evaluating groundwater nitrate and other physicochemical parameters of the arid and semi-arid district of DI Khan by multivariate statistical analysis. <i>Environmental Technology (United Kingdom)</i> , 2023, 44, 911-920.   | 1.2 | 4         |

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|----|--|-----|-----------|
| 73 | Formulation of zwitter-ionic terpolymeric hydrogels and their comprehensive rheological investigation. <i>Journal of Dispersion Science and Technology</i> , 2023, 44, 1455-1465.  | 1.3 | 4         |
| 74 | Synthesis and Characterization of Polyaniline Doped with Dodecylbenzenesulfonic and Oxalic Acids. <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, S87-S94.  | 0.1 | 4         |
| 75 | Light scattering and surface tensiometric studies of tip-modified PEO-PBO diblock copolymers in water. <i>Journal of Polymer Research</i> , 2013, 20, 1.   | 1.2 | 3         |
| 76 | Physicochemical Interaction of ZnO Fine Particles with 5-(4-carboxyphenyl)-10,15,20-Triphenylporphyrin. <i>Journal of the Chinese Chemical Society</i> , 2015, 62, 915-924.  | 0.8 | 3         |
| 77 | <i>In-situ</i> stabilization of silver nanoparticles in polymer hydrogels for enhanced catalytic reduction of macro and micro pollutants. <i>Zeitschrift Fur Physikalische Chemie</i> , 2021, 235, 1009-1026.              | 1.4 | 3         |
| 78 | Preparation, Physicochemical and Rheological Studies of Stimuli-Responsive Biodegradable Polymer Gels. <i>Russian Journal of Physical Chemistry B</i> , 2021, 15, S109-S119.   | 0.2 | 3         |
| 79 | Interfacial activity and micellar morphology of an imidazolium ring containing zwitterionic surfactants. <i>Journal of Surfactants and Detergents</i> , 2022, 25, 341-350.   | 1.0 | 3         |
| 80 | Hybridization of Gold Nanoparticles with Poly(ethylene glycol) Methacrylate and Their Biomedical Applications. <i>Russian Journal of Physical Chemistry A</i> , 2021, 95, 2619-2631.                                       | 0.1 | 3         |
| 81 | Thermodynamics of Adsorption and Micellization of Triblock Copolymers of Oxyethylene and Oxybutylene in Aqueous Medium Using Surface Tensiometry. <i>Journal of Dispersion Science and Technology</i> , 2013, 34, 400-405. | 1.3 | 2         |
| 82 | Characterization study of polyAMPS@BMA core-shell particles using two types of RAFT agents. <i>Materials Science-Poland</i> , 2021, 39, 200-208.   | 0.4 | 2         |
| 83 | The physicochemical and DNA binding studies of some medicinal compounds in solutions. <i>Zeitschrift Fur Physikalische Chemie</i> , 2022, 236, 425-438.  | 1.4 | 2         |
| 84 | Effect of biocides on the precipitation of calcium fluoride in the presence of anionic copolymeric inhibitors. <i>Toxicological and Environmental Chemistry</i> , 0, , 1-11.   | 0.6 | 1         |
| 85 | Processing strategies of chitosan-built nano-hydrogel as smart drug carriers. , 2021, , 467-490.   |     | 1         |
| 86 | Molecularly Imprinted Polymer Particles and Beads: A Survey of Modern Synthetic Techniques. <i>Current Nanoscience</i> , 2021, 17, 380-392.  | 0.7 | 1         |
| 87 | Preparation of Chitosan Based Polymer Microgels, Their Composites with Zinc Oxide Nanoparticles, and Physicochemical Investigation. <i>Russian Journal of Physical Chemistry A</i> , 2021, 95, 2600-2608.                  | 0.1 | 1         |
| 88 | Natural Crude Dye from Cucurbita Pepo Leaves for Dying, Antimicrobial, and Antioxidant Activities. <i>Letters in Organic Chemistry</i> , 2021, 18, 969-976.  | 0.2 | 0         |
| 89 | Physico-Chemical Investigations on the Catalytic Production of Biofuel from Algal Biomass. <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, S31-S37.   | 0.1 | 0         |