

Anil Kumar

List of Publications by Year in descending order

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122
papers

5,445
citations

172386

29
h-index

85498

71
g-index

125
all docs

125
docs citations

125
times ranked

8959
citing authors

#	ARTICLE	IF	CITATIONS
1	pH-Sensitive nano-systems for drug delivery in cancer therapy. <i>Biotechnology Advances</i> , 2014, 32, 693-710.	6.0	887
2	Size-Dependent Localization and Penetration of Ultrasmall Gold Nanoparticles in Cancer Cells, Multicellular Spheroids, and Tumors <i>in Vivo</i> . <i>ACS Nano</i> , 2012, 6, 4483-4493.	7.3	724
3	Ultrasmall Gold Nanoparticles as Carriers for Nucleus-Based Gene Therapy Due to Size-Dependent Nuclear Entry. <i>ACS Nano</i> , 2014, 8, 5852-5862.	7.3	347
4	Gold nanoparticles: Emerging paradigm for targeted drug delivery system. <i>Biotechnology Advances</i> , 2013, 31, 593-606.	6.0	308
5	Gold nanoparticles functionalized with therapeutic and targeted peptides for cancer treatment. <i>Biomaterials</i> , 2012, 33, 1180-1189.	5.7	280
6	Spatiotemporal Drug Release Visualized through a Drug Delivery System with Tunable Aggregation-Induced Emission. <i>Advanced Materials</i> , 2014, 26, 712-717.	11.1	188
7	Multifunctional aptamer-based nanoparticles for targeted drug delivery to circumvent cancer resistance. <i>Biomaterials</i> , 2016, 91, 44-56.	5.7	186
8	Neuropilin-1-Targeted Gold Nanoparticles Enhance Therapeutic Efficacy of Platinum(IV) Drug for Prostate Cancer Treatment. <i>ACS Nano</i> , 2014, 8, 4205-4220.	7.3	146
9	Innovative pharmaceutical development based on unique properties of nanoscale delivery formulation. <i>Nanoscale</i> , 2013, 5, 8307.	2.8	115
10	Dopamine-melanin nanoparticles scavenge reactive oxygen and nitrogen species and activate autophagy for osteoarthritis therapy. <i>Nanoscale</i> , 2019, 11, 11605-11616.	2.8	103
11	Introduction to magnesium alloy processing technology and development of low-cost stir casting process for magnesium alloy and its composites. <i>Journal of Magnesium and Alloys</i> , 2018, 6, 245-254.	5.5	102
12	Nanotechnology inspired tools for mitochondrial dysfunction related diseases. <i>Advanced Drug Delivery Reviews</i> , 2016, 99, 52-69.	6.6	101
13	Surface Charge Regulation of Osteogenic Differentiation of Mesenchymal Stem Cell on Polarized Ferroelectric Crystal Substrate. <i>Advanced Healthcare Materials</i> , 2015, 4, 998-1003.	3.9	79
14	Synergistically Enhanced Therapeutic Effect of a Carrier-Free HCPT/DOX Nanodrug on Breast Cancer Cells through Improved Cellular Drug Accumulation. <i>Molecular Pharmaceutics</i> , 2015, 12, 2237-2244.	2.3	72
15	Gold Nanoparticles: Promising Nanomaterials for the Diagnosis of Cancer and HIV/AIDS. <i>Journal of Nanomaterials</i> , 2011, 2011, 1-17.	1.5	70
16	Nanoparticles Encapsulating Nitrosylated Maytansine To Enhance Radiation Therapy. <i>ACS Nano</i> , 2020, 14, 1468-1481.	7.3	69
17	Fe-based amorphous/nanocrystalline composite coating by plasma spraying: Effect of heat input on morphology, phase evolution and mechanical properties. <i>Journal of Alloys and Compounds</i> , 2019, 771, 827-837.	2.8	59
18	Observation of dissociative quasi-free electron attachment to nucleoside via excited anion radical in solution. <i>Nature Communications</i> , 2019, 10, 102.	5.8	55

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19	Reaction of Electrons with DNA: Radiation Damage to Radiosensitization. International Journal of Molecular Sciences, 2019, 20, 3998.	1.8	54
20	Long genomic DNA amplicons adsorption onto unmodified gold nanoparticles for colorimetric detection of Bacillus anthracis. Chemical Communications, 2013, 49, 51-53.	2.2	52
21	SOMOâ€“HOMO Level Inversion in Biologically Important Radicals. Journal of Physical Chemistry B, 2018, 122, 98-105.	1.2	52
22	Nanotechnology for Neuroscience: Promising Approaches for Diagnostics, Therapeutics and Brain Activity Mapping. Advanced Functional Materials, 2017, 27, 1700489.	7.8	49
23	Physical and Mechanical Properties of Natural Leaf Fiber-Reinforced Epoxy Polyester Composites. Polymers, 2021, 13, 1369.	2.0	48
24	Optimization of mechanical and corrosion properties of plasma sprayed low-chromium containing Fe-based amorphous/nanocrystalline composite coating. Surface and Coatings Technology, 2019, 370, 255-268.	2.2	47
25	Microstructure and corrosion behavior of Fe-based amorphous composite coatings developed by atmospheric plasma spraying. Journal of Alloys and Compounds, 2019, 796, 47-54.	2.8	38
26	Investigation of nano- and micro-scale structural evolution and resulting corrosion resistance in plasma sprayed Fe-based (Fe-Cr-B-C-P) amorphous coatings. Surface and Coatings Technology, 2020, 397, 126058.	2.2	37
27	Multi-scale mechanical properties of Fe-based amorphous/nanocrystalline composite coating synthesized by HVOF spraying. Journal of Alloys and Compounds, 2020, 825, 154120.	2.8	36
28	Highly sensitive simultaneous detection of mercury and copper ions by ultrasmall fluorescent DNAâ€“Ag nanoclusters. New Journal of Chemistry, 2014, 38, 1546.	1.4	34
29	Effect of Variation of SiC Reinforcement on Wear Behaviour of AZ91 Alloy Composites. Materials, 2021, 14, 990.	1.3	34
30	Development of Macroporous Silicone Rubber for Acoustic Applications. Industrial & Engineering Chemistry Research, 2016, 55, 8751-8760.	1.8	29
31	â€œWater-In-Saltâ€“Electrolyte-Based High-Voltage (2.7 V) Sustainable Symmetric Supercapacitor with Superb Electrochemical Performanceâ€“An Analysis of the Role of Electrolytic Ions in Extending the Cell Voltage. ACS Sustainable Chemistry and Engineering, 2021, 9, 2338-2347.	3.2	28
32	Mitochondrial dysfunction-mediated apoptosis resistance associates with defective heat shock protein response in Africanâ€“American men with prostate cancer. British Journal of Cancer, 2016, 114, 1090-1100.	2.9	27
33	Acridine Orange Encapsulated Mesoporous Manganese Dioxide Nanoparticles to Enhance Radiotherapy. Bioconjugate Chemistry, 2020, 31, 82-92.	1.8	27
34	Mechanistic insight into the role of amorphicity and porosity on determining the corrosion mitigation behavior of Fe-based amorphous/nanocrystalline coating. Journal of Alloys and Compounds, 2020, 849, 156624.	2.8	27
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37	Properties of functionally gradient composites reinforced with waste natural fillers. <i>Acta Periodica Technologica</i> , 2019, , 250-259.	0.5	26
38	Heat transfer augmentation in automobile radiator using Al ₂ O ₃ -water based nanofluid. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	25
39	Effect of SiC Reinforcement and Its Variation on the Mechanical Characteristics of AZ91 Composites. <i>Materials</i> , 2020, 13, 4913.	1.3	24
40	Destabilized Carbocations Caged in Water Microdroplets: Isolation and Real-Time Detection of Carbonyl Cation Intermediates. <i>Journal of the American Chemical Society</i> , 2022, 144, 3347-3352.	6.6	24
41	Nanoconjugates to enhance PDT-mediated cancer immunotherapy by targeting the indoleamine-2,3-dioxygenase pathway. <i>Journal of Nanobiotechnology</i> , 2021, 19, 182.	4.2	23
42	Indium(III) bromide catalyzed direct azidation of α -hydroxyketones using TMSN ₃ . <i>Tetrahedron</i> , 2013, 69, 10724-10732.	1.0	22
43	Sustainable Catalytic Activity of Ag-Coated Chitosan-Capped Fe ₃ O ₄ /Superparamagnetic Binary Nanohybrids (Ag-Fe ₃ O ₄ @CS) for the Reduction of Environmentally Hazardous Dyes: A Kinetic Study of the Operating Mechanism Analyzing Methyl Orange Reduction. <i>ACS Omega</i> , 2018, 3, 1529-1545.	1.6	21
44	A designer bow-tie combination therapeutic platform: An approach to resistant cancer treatment by simultaneous delivery of cytotoxic and anti-inflammatory agents and radiation. <i>Biomaterials</i> , 2018, 187, 117-129.	5.7	21
45	A Study on the Corrosion Inhibition of Fe-Based Amorphous/Nanocrystalline Coating Synthesized by High-Velocity Oxy-Fuel Spraying in an Extreme Environment. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 1433-1447.	1.6	21
46	Direct observation of the oxidation of DNA bases by phosphate radicals formed under radiation: a model of the backbone-to-base hole transfer. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14927-14937.	1.3	20
47	Effect of TiC Reinforcement on Mechanical and Wear Properties of AZ91 Matrix Composites. <i>International Journal of Metalcasting</i> , 2022, 16, 2128-2143.	1.5	20
48	Structure of Mg_{28} and influence of the neutron shell. <i>Physical Review C</i> , 2019, 100.	1.1	19
49	Investigation of nanomechanical deformation behavior in plasma sprayed Fe-based amorphous/nanocrystalline composite coating via multi-scale indentation and nanotribology. <i>Journal of Non-Crystalline Solids</i> , 2020, 545, 120244.	1.5	19
50	High Electrochemical Performance of 2.5V Aqueous Symmetric Supercapacitor Based on Nitrogen-Doped Reduced Graphene Oxide. <i>Energy Technology</i> , 2020, 8, 1901339.	1.8	19
51	Microwave assisted fluorofunctionalization of phenyl substituted alkenes using selectfluor. <i>Journal of Fluorine Chemistry</i> , 2013, 150, 72-77.	0.9	18
52	Friedel-Crafts Arylation of α -Hydroxy Ketones: Synthesis of 1,2,2,2-tetraarylethanones. <i>European Journal of Organic Chemistry</i> , 2015, 2015, 1226-1234.	1.2	18
53	Excited States of One-Electron Oxidized Guanine-Cytosine Base Pair Radicals: A Time Dependent Density Functional Theory Study. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3098-3108.	1.1	18
54	Physico-Mechanical Properties and Taguchi Optimized Abrasive Wear of Alkali Treated and Fly Ash Reinforced Himalayan Agave Fiber Polyester Composite. <i>Journal of Natural Fibers</i> , 2022, 19, 9269-9282.	1.7	18

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55	Nanostructures for Medicine and Pharmaceuticals. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-2.	1.5	17
56	Electrochemical behavior of glycine-mediated N-doped reduced graphene oxide. <i>New Journal of Chemistry</i> , 2017, 41, 8333-8340.	1.4	17
57	Multi-scale indentation creep behavior in Fe-based amorphous/nanocrystalline coating at room temperature. <i>Materials Letters</i> , 2021, 283, 128768.	1.3	17
58	Ultrafast resistive-type $\text{Fe}_2\text{O}_3/\text{rGO}$ nanohybrid-based humidity sensor "a respiratory monitoring tool. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	17
59	In situ self-assembly of peptides in glucan particles for macrophage-targeted oral delivery. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5882.	2.9	16
60	Second-forbidden nonunique $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:msup} \langle \text{mml:mi} \rangle \hat{I}^2 \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \hat{a}'' \langle \text{mml:mo} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:multiscripts} \rangle \langle \text{mml:mi} \rangle \text{Na} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mn} \rangle 24 \langle \text{mml:mn} \rangle \langle \text{mml:multiscripts} \rangle \langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:multiscripts} \rangle \langle \text{mml:mi} \rangle \text{Cl} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle$ decays of Na^{24} and Cl^{36} Temperature Effects on CO_2 Electroreduction Pathways in an Imidazolium-Based Ionic Liquid on Pt Electrode. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26094-26105.	1.1	16
61	One-electron oxidation of $\text{ds}(5\text{-GGG}-3)$ and $\text{ds}(5\text{-G}(8\text{OG})\text{G}-3)$ and the nature of hole distribution: a density functional theory (DFT) study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5078-5089.	1.5	15
62	One-electron oxidation of $\text{ds}(5\text{-GGG}-3)$ and $\text{ds}(5\text{-G}(8\text{OG})\text{G}-3)$ and the nature of hole distribution: a density functional theory (DFT) study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 5078-5089.	1.3	15
63	Electron-Mediated Aminyl and Iminyl Radicals from C5 Azido-Modified Pyrimidine Nucleosides Augment Radiation Damage to Cancer Cells. <i>Organic Letters</i> , 2018, 20, 7400-7404.	2.4	14
64	Remediation of Arsenic by Metal/ Metal Oxide Based Nanocomposites/ Nanohybrids: Contamination Scenario in Groundwater, Practical Challenges, and Future Perspectives. <i>Separation and Purification Reviews</i> , 2021, 50, 283-314.	2.8	14
65	Synthesis of 2-amino-4H-chromen-4-ylphosphonates and \hat{I}^2 -phosphonomalonates via tandem Knoevenagel-Phospha-Michael reaction and antimicrobial evaluation of newly synthesized \hat{I}^2 -phosphonomalonates. <i>Research on Chemical Intermediates</i> , 2017, 43, 7319-7329.	1.3	13
66	<i>In Situ</i> Wet Synthesis of N-ZnO/N-rGO Nanohybrids as an Electrode Material for High-Performance Supercapacitors and Simultaneous Nonenzymatic Electrochemical Sensing of Ascorbic Acid, Dopamine, and Uric Acid at Their Interface. <i>Journal of Physical Chemistry C</i> , 2021, 125, 24837-24848.	1.5	13
67	Multistimulus-Responsive Supramolecular Hydrogels Derived by <i>in situ</i> Coating of Ag Nanoparticles on 5-CMP -Capped $\hat{I}^2\text{-FeOOH}$ Binary Nanohybrids with Multifunctional Features and Applications. <i>ACS Omega</i> , 2020, 5, 13672-13684.	1.6	12
68	Experimental Investigation of Double Slope Solar Still for the Climatic Condition of Sultanpur. <i>International Journal of Engineering and Technology</i> , 2017, 9, 4019-4033.	0.1	12
69	Prehydrated One-Electron Attachment to Azido-Modified Pentofuranoses: Aminyl Radical Formation, Rapid H-Atom Transfer, and Subsequent Ring Opening. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4968-4980.	1.2	11
70	Environmentally benign pH-responsive cytidine- 5-monophosphate molecule-mediated akaganeite ($5\text{-CMP-}\hat{I}^2\text{-FeOOH}$) soft supramolecular hydrogels induced by the puckering of ribose sugar with efficient loading/release capabilities. <i>New Journal of Chemistry</i> , 2019, 43, 14997-15013.	1.4	11
71	An improved protocol for the synthesis of 3,4-disubstituted isoxazol-5(4H)-ones through L-valine-mediated domino three-component strategy. <i>Journal of Chemical Sciences</i> , 2020, 132, 1.	0.7	11
72	Investigation of mechanical and tribological performance of marble dust 7075 aluminium alloy composites. <i>Materials Today: Proceedings</i> , 2021, 44, 4542-4547.	0.9	11

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73	Adsorption and Electrochemistry of Carbon Monoxide at the Ionic Liquid/Pt Interface. Journal of Physical Chemistry B, 2019, 123, 4726-4734.	1.2	10
74	Effect of Particle Size on Physical and Mechanical Properties of Fly Ash Based Geopolymers. Transactions of the Indian Institute of Metals, 2019, 72, 1323-1337.	0.7	10
75	In Situ Formation of ZrB ₂ and Its Influence on Wear and Mechanical Properties of ADC12 Alloy Mixed Matrix Composites. Materials, 2021, 14, 2141.	1.3	10
76	Evaluation of Physical, Mechanical, and Wear Properties of Jatropha Shell Powder Reinforced Epoxy Glass Fiber Composites. Journal of Natural Fibers, 2022, 19, 12195-12207.	1.7	10
77	Phenylboronic acid-functionalized magnetic nanoparticles for one-step saccharides enrichment and mass spectrometry analysis. Biophysics Reports, 2015, 1, 61-70.	0.2	9
78	RNA-mediated fluorescent colloidal CdSe nanostructures in aqueous medium – analysis of Cd ²⁺ induced folding of RNA associated with morphological transformation (0D to 1D), change in photophysics and selective Hg ²⁺ sensing. Journal of Materials Chemistry A, 2017, 5, 6146-6163.	5.2	9
79	Cytosine Iminyl Radical (cytN [•]) Formation via Electron-Induced Debromination of 5-Bromocytosine: A DFT and Gaussian 4 Study. Journal of Physical Chemistry A, 2017, 121, 4825-4829.	1.1	9
80	Intracisternal administration of tanshinone IIA-loaded nanoparticles leads to reduced tissue injury and functional deficits in a porcine model of ischemic stroke. IBRO Neuroscience Reports, 2021, 10, 18-30.	0.7	9
81	LiF@SiO ₂ nanocapsules for controlled lithium release and osteoarthritis treatment. Nano Research, 2018, 11, 5751-5760.	5.8	8
82	Core hydrophobicity tuning of a self-assembled particle results in efficient lipid reduction and favorable organ distribution. Nanoscale, 2018, 10, 366-377.	2.8	8
83	Mathematical modelling and performance analysis of single pass flat plate solar collector. IOP Conference Series: Materials Science and Engineering, 2018, 404, 012051.	0.3	8
84	Shell model results for nuclear β^+ -decay properties of sd-shell nuclei. Progress of Theoretical and Experimental Physics, 2020, 2020, .	1.8	8
85	Numerical assessment on the performance of variable area single- and two-stage ejectors: A comparative study. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2022, 236, 114-125.	1.4	8
86	Optimization of Process Parameters in Continuous Extrusion of Aluminium Alloy. , 2018, , .		7
87	Optimization of sliding and mechanical performance Ti/Ni metal powder particulate reinforced Al 6061 alloy composite using preference selection index method. Materials Today: Proceedings, 2021, 44, 4784-4788.	0.9	7
88	Comparative Study on Wear and Corrosion Behavior of Plasma Sprayed Fe ₇₃ Cr ₂ Si ₁₁ B ₁₁ C ₃ and Fe ₆₃ Cr ₉ P ₅ B ₁₆ C ₇ Metallic Glass Composite Coatings. Journal of Thermal Spray Technology, 2022, 31, 1302-1316.	1.6	7
89	EWG assisted nucleophilic fluorination using PPHF: a strategy for the synthesis of 1,2,2-triaryl-2-fluoroethanones. Tetrahedron, 2011, 67, 8308-8313.	1.0	6
90	Performance analysis of the solar photovoltaic thermal system using phase change material. IOP Conference Series: Materials Science and Engineering, 2019, 577, 012166.	0.3	6

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109	Experimental Investigation of Heat Transfer Augmentation in Automobile Radiators using Magnesium Oxide/Distilled Water-Ethylene Glycol based Nanofluid. <i>Materials Today: Proceedings</i> , 2020, 24, 1525-1532.	0.9	3
110	Proton-Transfer Reactions in One-Electron-Oxidized G-Quadruplexes: A Density Functional Theory Study. <i>Journal of Physical Chemistry B</i> , 2022, 126, 1483-1491.	1.2	3
111	CeCl ₃ ·7H ₂ O-catalysed hydrophosphonylation of aldehydes and ketones: An expeditious route to β -hydroxyphosphonates under solvent-free conditions. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2019, 194, 1091-1097.	0.8	2
112	LiBr-catalyzed one-pot three-component domino strategy toward the construction of α -phosphonomalonates scaffolds in aqueous conditions. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2020, 195, 607-613.	0.8	2
113	Modulation of the Directionality of Hole Transfer between the Base and the Sugar-Phosphate Backbone in DNA with the Number of Sulfur Atoms in the Phosphate Group. <i>Journal of Physical Chemistry B</i> , 2022, 126, 430-442.	1.2	2
114	Supramolecular-Assisted RNA-Templated Fluorescing Colloidal CdSe QDs Organized in Porous Morphology in the Presence of 1,3-Diaminopropane: Study of Their Multifunctional Behavior. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7898-7915.	1.5	1
115	Thermal Characteristics of Sisal Composites Containing Charcoal Particles. <i>Materials Today: Proceedings</i> , 2019, 18, 3174-3181.	0.9	1
116	Effect of Climatic Conditions and Water Depth on Yield of Single Slope Solar Still. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 137-147.	0.3	1
117	An expeditious and clean synthesis of novel benzotriazole-triazole conjugates via Copper-catalyzed Azide-Alkyne cycloaddition click protocol (CuAAC). <i>Journal of Chemical Sciences</i> , 2022, 134, .	0.7	1
118	Zn ²⁺ /Cd ²⁺ -RNA-mediated intense white-light-emitting colloidal CdSe nanostructures in aqueous medium “enhanced photophysics and porous morphology induced by conformational change in RNA. <i>Journal of Materials Chemistry C</i> , 2019, 7, 692-708.	2.7	0
119	Mathematical modeling and mechanical characterization through process parameters optimization of AlMg-matrix SiCp reinforced composites produced by powder metallurgy route. <i>Materials Today: Proceedings</i> , 2021, , .	0.9	0
120	Effect of Process Parameter on Surface Composite Developed Through Friction Stir Processing: A Review. <i>Lecture Notes in Mechanical Engineering</i> , 2022, , 1-22.	0.3	0
121	Shell-model study for GT-strengths corresponding to β decay of ⁶⁰ Ge and ⁶² Ge. <i>Nuclear Physics A</i> , 2022, 1017, 122344.	0.6	0
122	Corrosion Behavior of Fe-Based Amorphous/Nanocrystalline Composite Coating: Correlating the Influence of Porosity and Amorphicity. , 2021, 6, .		0