

Ajay Vikram Singh

List of Publications by Year in descending order

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84
papers

4,089
citations

101384
36
h-index

128067
60
g-index

84
all docs

84
docs citations

84
times ranked

4856
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging cold plasma treatment and machine learning prospects for seed priming: a step towards sustainable food production. RSC Advances, 2022, 12, 10467-10488.	1.7	37
2	Biofilm inhibition in Candida albicans with biogenic hierarchical zinc-oxide nanoparticles. Materials Science and Engineering C, 2022, 134, 112592.	3.8	22
3	Investigation of the Associations between a Nanomaterial's Microrheology and Toxicology. ACS Omega, 2022, 7, 13985-13997.	1.6	25
4	Perspectives on the Technological Aspects and Biomedical Applications of Virus-Like Particles/Nanoparticles in Reproductive Biology: Insights on the Medicinal and Toxicological Outlook. Advanced NanoBiomed Research, 2022, 2, .	1.7	23
5	Interfacial Water in the SARS Spike Protein: Investigating the Interaction with Human ACE2 Receptor and In Vitro Uptake in A549 Cells. Langmuir, 2022, 38, 7976-7988.	1.6	20
6	Self-Assembly of DNA-Grafted Colloids: A Review of Challenges. Micromachines, 2022, 13, 1102.	1.4	10
7	Genetics and Epigenetics of One-Carbon Metabolism Pathway in Autism Spectrum Disorder: A Sex-Specific Brain Epigenome?. Genes, 2021, 12, 782.	1.0	22
8	Emerging Application of Nanorobotics and Artificial Intelligence To Cross the BBB: Advances in Design, Controlled Maneuvering, and Targeting of the Barriers. ACS Chemical Neuroscience, 2021, 12, 1835-1853.	1.7	66
9	Combinatory Effects of Cerium Dioxide Nanoparticles and Acetaminophen on the Liver—A Case Study of Low-Dose Interactions in Human HuH-7 Cells. International Journal of Molecular Sciences, 2021, 22, 6866.	1.8	8
10	Emerging Technologies for In Vitro Inhalation Toxicology. Advanced Healthcare Materials, 2021, 10, e2100633.	3.9	34
11	Advances in Smoking Related In Vitro Inhalation Toxicology: A Perspective Case of Challenges and Opportunities from Progresses in Lung-on-Chip Technologies. Chemical Research in Toxicology, 2021, 34, 1984-2002.	1.7	44
12	Evaluating Particle Emissions and Toxicity of 3D Pen Printed Filaments with Metal Nanoparticles As Additives: <i>In Vitro</i> and <i>In Silico</i> Discriminant Function Analysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 11724-11737.	3.2	39
13	Sustainable Agriculture through Multidisciplinary Seed Nanoprimer: Prospects of Opportunities and Challenges. Cells, 2021, 10, 2428.	1.8	48
14	Micro/nanoplastics: an emerging environmental concern for the future decade. Frontiers in Nanoscience and Nanotechnology, 2021, 7, .	0.3	5
15	Machine-Learning-Based Approach to Decode the Influence of Nanomaterial Properties on Their Interaction with Cells. ACS Applied Materials & Interfaces, 2021, 13, 1943-1955.	4.0	101
16	In Silico Modeling as a Perspective in Developing Potential Vaccine Candidates and Therapeutics for COVID-19. Coatings, 2021, 11, 1273.	1.2	19
17	Traditional Herbal Remedies with a Multifunctional Therapeutic Approach as an Implication in COVID-19 Associated Co-Infections. Coatings, 2020, 10, 761.	1.2	27
18	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. Advanced Intelligent Systems, 2020, 2, 2000084.	3.3	77

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19	Emerging paradigm against global antimicrobial resistance via bioprospecting of mushroom into novel nanotherapeutics development. Trends in Food Science and Technology, 2020, 106, 333-344.	7.8	31
20	Parametric Optimization of an Air-Liquid Interface System for Flow-Through Inhalation Exposure to Nanoparticles: Assessing Dosimetry and Intracellular Uptake of CeO ₂ Nanoparticles. Nanomaterials, 2020, 10, 2369.	1.9	25
21	Commentary on "Peptide-Conjugated Nanoparticles as Targeted Anti-angiogenesis Therapeutic and Diagnostic in Cancer" by Shaker A. Mousa, Pharmaceutical Research Institute, Albany College of Pharmacy and Health Sciences, Rensselaer, NY 12144, United States - Peptide-Conjugated Nanoparticles for Multimodal Nanomedicine. Current Medicinal Chemistry. 2020. 27, 2927-2928.	1.2	13
22	Artificial Intelligence and Machine Learning in Computational Nanotoxicology: Unlocking and Empowering Nanomedicine. Advanced Healthcare Materials, 2020, 9, e1901862.	3.9	157
23	The Vitamin A and D Exposure of Cells Affects the Intracellular Uptake of Aluminum Nanomaterials and Its Agglomeration Behavior: A Chemo-Analytic Investigation. International Journal of Molecular Sciences, 2020, 21, 1278.	1.8	11
24	ToF-SIMS 3D imaging unveils important insights on the cellular microenvironment during biomineralization of gold nanostructures. Scientific Reports, 2020, 10, 261.	1.6	31
25	Sperm Cell Driven Microrobots: Emerging Opportunities and Challenges for Biologically Inspired Robotic Design. Micromachines, 2020, 11, 448.	1.4	64
26	Mechanical Coupling of Puller and Pusher Active Microswimmers Influences Motility. Langmuir, 2020, 36, 5435-5443.	1.6	28
27	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. Advanced Intelligent Systems, 2020, 2, 2070125.	3.3	18
28	Recent Advances in Plant Nanobionics and Nanobiosensors for Toxicology Applications. Current Nanoscience, 2020, 16, 27-41.	0.7	23
29	3D Printing - Evaluating Particle Emissions of a 3D Printing Pen. Journal of Visualized Experiments, 2020, , .	0.2	11
30	Multifunctional magnetic hairbot for untethered osteogenesis, ultrasound contrast imaging and drug delivery. Biomaterials, 2019, 219, 119394.	5.7	76
31	Micro-nanorobots: important considerations when developing novel drug delivery platforms. Expert Opinion on Drug Delivery, 2019, 16, 1259-1275.	2.4	71
32	Graphene Oxide Synergistically Enhances Antibiotic Efficacy in Vancomycin-Resistant <i>Staphylococcus aureus</i> . ACS Applied Bio Materials, 2019, 2, 1148-1157.	2.3	31
33	The Adoption of Three-Dimensional Additive Manufacturing from Biomedical Material Design to 3D Organ Printing. Applied Sciences (Switzerland), 2019, 9, 811.	1.3	43
34	Peptide-Induced Biomineralization of Tin Oxide (SnO ₂) Nanoparticles for Antibacterial Applications. Journal of Nanoscience and Nanotechnology, 2019, 19, 5674-5686.	0.9	27
35	In Vivo Biocompatibility of Electrospun Biodegradable Dual Carrier (Antibiotic + Growth Factor) in a Mouse Model: Implications for Rapid Wound Healing. Pharmaceutics, 2019, 11, 180.	2.0	49
36	Nitrogen doped carbon quantum dots demonstrate no toxicity under <i>in vitro</i> conditions in a cervical cell line and <i>in vivo</i> in Swiss albino mice. Toxicology Research, 2019, 8, 395-406.	0.9	39

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37	Nanoparticle induced barrier function assessment at liquid-liquid and air-liquid interface in novel human lung epithelia cell lines. <i>Toxicology Research</i> , 2019, 8, 1016-1027.	0.9	41
38	Review of emerging concepts in nanotoxicology: opportunities and challenges for safer nanomaterial design. <i>Toxicology Mechanisms and Methods</i> , 2019, 29, 378-387.	1.3	147
39	Bottom-UP assembly of nanorobots: extending synthetic biology to complex material design. <i>Frontiers in Nanoscience and Nanotechnology</i> , 2019, 5, .	0.3	18
40	High throughput array technologies: Expanding applications from clinics to applied research. <i>Frontiers in Nanoscience and Nanotechnology</i> , 2019, 5, .	0.3	4
41	Helminthiidal and Larvicidal Potentials of Biogenic Silver Nanoparticles Synthesized from Medicinal Plant <i>Momordica charantia</i> . <i>Medicinal Chemistry</i> , 2019, 15, 781-789.	0.7	29
42	Redox metals homeostasis in multiple sclerosis and amyotrophic lateral sclerosis: a review. <i>Cell Death and Disease</i> , 2018, 9, 348.	2.7	82
43	Cancer cells biomineralize ionic gold into nanoparticles-microplates via secreting defense proteins with specific gold-binding peptides. <i>Acta Biomaterialia</i> , 2018, 71, 61-71.	4.1	45
44	Three-dimensional patterning in biomedicine: Importance and applications in neuropharmacology. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 1369-1382.	1.6	20
45	<i>In vivo</i> diabetic wound healing with nanofibrous scaffolds modified with gentamicin and recombinant human epidermal growth factor. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 641-651.	2.1	64
46	Seed-mediated synthesis of plasmonic gold nanoribbons using cancer cells for hyperthermia applications. <i>Journal of Materials Chemistry B</i> , 2018, 6, 7573-7581.	2.9	32
47	Nanobiomaterials for vascular biology and wound management: A review. <i>Veins and Lymphatics</i> , 2018, 7, .	0.1	27
48	Incorporation of Terbium into a Microalga Leads to Magnetotactic Swimmers. <i>Advanced Biology</i> , 2018, 2, 1800039.	3.0	39
49	Anisotropic Gold Nanostructures: Optimization via in Silico Modeling for Hyperthermia. <i>ACS Applied Nano Materials</i> , 2018, 1, 6205-6216.	2.4	45
50	Gene-gene interactions among coding genes of iron-homeostasis proteins and APOE-alleles in cognitive impairment diseases. <i>PLoS ONE</i> , 2018, 13, e0193867.	1.1	40
51	The prospective role of nanobiotechnology in food and food packaging products. <i>Integrative Food, Nutrition and Metabolism</i> , 2018, 5, .	0.3	12
52	Microemulsion-Based Soft Bacteria-Driven Microswimmers for Active Cargo Delivery. <i>ACS Nano</i> , 2017, 11, 9759-9769.	7.3	157
53	Contactless and Hassle Free Real Time Heart Rate Measurement with Facial Video. <i>Journal of Cardiac Critical Care TSS</i> , 2017, 01, 024-029.	0.0	10
54	Multiaxial Polarity Determines Individual Cellular and Nuclear Chirality. <i>Cellular and Molecular Bioengineering</i> , 2017, 10, 63-74.	1.0	15

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55	Hydrophobic pinning with copper nanowhiskers leads to bactericidal properties. PLoS ONE, 2017, 12, e0175428.	1.1	28
56	Editorial (Thematic Issue: Recent Trends in Nano-Biotechnology Reinforcing Contemporary) Tj ETQq0 0 0 rgBT /Overclock 10 Tf 50 702 To	0.9	18
57	Patterned and Specific Attachment of Bacteria on Biohybrid Bacteria-Driven Microswimmers. Advanced Healthcare Materials, 2016, 5, 2325-2331.	3.9	42
58	Bioengineered and biohybrid bacteria-based systems for drug delivery. Advanced Drug Delivery Reviews, 2016, 106, 27-44.	6.6	262
59	Bacteria-Driven Particles: Patterned and Specific Attachment of Bacteria on Biohybrid Bacteria-Driven Microswimmers (Adv. Healthcare Mater. 18/2016). Advanced Healthcare Materials, 2016, 5, 2306-2306.	3.9	11
60	Cellular and Nuclear Alignment Analysis for Determining Epithelial Cell Chirality. Annals of Biomedical Engineering, 2016, 44, 1475-1486.	1.3	35
61	Top-Down Versus Bottom-Up Nanoengineering Routes to Design Advanced Oropharmacological Products. Current Pharmaceutical Design, 2016, 22, 1534-1545.	0.9	22
62	Targeted Drug Delivery and Imaging Using Mobile Milli/Microrobots: A Promising Future Towards Theranostic Pharmaceutical Design. Current Pharmaceutical Design, 2016, 22, 1418-1428.	0.9	96
63	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. Scientific Reports, 2015, 5, 7847.	1.6	45
64	Biophysicochemical Perspective of Nanoparticle Compatibility: A Critically Ignored Parameter in Nanomedicine. Journal of Nanoscience and Nanotechnology, 2014, 14, 402-414.	0.9	37
65	Biomaterialized Anisotropic Gold Microplate- Macrophage Interactions Reveal Frustrated Phagocytosis-like Phenomenon: A Novel Paclitaxel Drug Delivery Vehicle. ACS Applied Materials & Interfaces, 2014, 6, 14679-14689.	4.0	44
66	Carbon Nanotube-Induced Loss of Multicellular Chirality on Micropatterned Substrate Is Mediated by Oxidative Stress. ACS Nano, 2014, 8, 2196-2205.	7.3	56
67	Nanoparticle Enabled Drug Delivery Across the Blood Brain Barrier: in vivo and in vitro Models, Opportunities and Challenges. Current Pharmaceutical Biotechnology, 2014, 14, 1201-1212.	0.9	55
68	Micro-nanopatterning as tool to study the role of physicochemical properties on cell-surface interactions. Journal of Biomedical Materials Research - Part A, 2013, 101, 3019-3032.	2.1	49
69	Interaction of Bacterial Cells with Cluster-Assembled Nanostructured Titania Surfaces: An Atomic Force Microscopy Study. Journal of Nanoscience and Nanotechnology, 2013, 13, 77-85.	0.9	24
70	Biotechnological applications of supersonic cluster beam-deposited nanostructured thin films: Bottom-up engineering to optimize cell-protein-surface interactions. Journal of Biomedical Materials Research - Part A, 2013, 101, 2994-3008.	2.1	10
71	Biofilm formation on nanostructured titanium oxide surfaces and a micro/nanofabrication-based preventive strategy using colloidal lithography. Biofabrication, 2012, 4, 025001.	3.7	35
72	Theranostic Implications of Nanotechnology in Multiple Sclerosis: A Future Perspective. Autoimmune Diseases, 2012, 2012, 1-12.	2.7	27

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73	Investigation of in vitro cytotoxicity of the redox state of ionic iron in neuroblastoma cells. Journal of Neurosciences in Rural Practice, 2012, 03, 301-310.	0.3	45
74	Polymorphisms in the genes coding for iron binding and transporting proteins are associated with disability, severity, and early progression in multiple sclerosis. BMC Medical Genetics, 2012, 13, 70.	2.1	42
75	Bio-inspired approaches to design smart fabrics. Materials & Design, 2012, 36, 829-839.	5.1	97
76	Rapid prototyping of nano- and micro-patterned substrates for the control of cell neuritogenesis by topographic and chemical cues. Materials Science and Engineering C, 2011, 31, 892-899.	3.8	19
77	Quantitative Characterization of the Influence of the Nanoscale Morphology of Nanostructured Surfaces on Bacterial Adhesion and Biofilm Formation. PLoS ONE, 2011, 6, e25029.	1.1	233
78	Biological Synthesis of Copper Oxide Nano Particles Using Escherichia coli. Current Nanoscience, 2010, 6, 365-369.	0.7	99
79	Nanoengineering Approaches to Design Advanced Dental Materials for Clinical Applications. Journal of Bionanoscience, 2010, 4, 53-65.	0.4	9
80	Multiple sclerosis takes venous route: CCSVI and liberation therapy. Indian Journal of Medical Sciences, 2010, 64, 337.	0.1	10
81	Nanomaterials: New Generation Therapeutics in Wound Healing and Tissue Repair. Current Nanoscience, 2010, 6, 577-586.	0.7	40
82	Review: Interplay of Iron Metallobiology, Metalloproteinases, and FXIII, and Role of Their Gene Variants in Venous Leg Ulcer. International Journal of Lower Extremity Wounds, 2010, 9, 166-179.	0.6	48
83	Anomalous Venous Blood Flow and Iron Deposition in Multiple Sclerosis. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 1867-1878.	2.4	181
84	Synthesis of gold, silver and their alloy nanoparticles using bovine serum albumin as foaming and stabilizing agent. Journal of Materials Chemistry, 2005, 15, 5115.	6.7	168