Ajay Vikram Singh

List of Publications by Year
in descending order

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84	4,089	101384	128067
papers	citations	36 h-index	60 g-index

84	84	84	4856
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bioengineered and biohybrid bacteria-based systems for drug delivery. Advanced Drug Delivery Reviews, 2016, 106, 27-44.	6.6	262
2	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
3	Anomalous Venous Blood Flow and Iron Deposition in Multiple Sclerosis. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 1867-1878.	2.4	181
4	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
5	Microemulsion-Based Soft Bacteria-Driven Microswimmers for Active Cargo Delivery. ACS Nano, 2017, 11, 9759-9769.	7.3	157
6	Artificial Intelligence and Machine Learning in Computational Nanotoxicology: Unlocking and Empowering Nanomedicine. Advanced Healthcare Materials, 2020, 9, e1901862.	3.9	157
7	Review of emerging concepts in nanotoxicology: opportunities and challenges for safer nanomaterial design. Toxicology Mechanisms and Methods, 2019, 29, 378-387.	1.3	147
8	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
9	Biological Synthesis of Copper Oxide Nano Particles Using Escherichia coli. Current Nanoscience, 2010, 6, 365-369.	0.7	99
10	Bio-inspired approaches to design smart fabrics. Materials & Design, 2012, 36, 829-839.	5.1	97
11	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
12	Redox metals homeostasis in multiple sclerosis and amyotrophic lateral sclerosis: a review. Cell Death and Disease, 2018, 9, 348.	2.7	82
13	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. Advanced Intelligent Systems, 2020, 2, 2000084.	3.3	77
14	Multifunctional magnetic hairbot for untethered osteogenesis, ultrasound contrast imaging and drug delivery. Biomaterials, 2019, 219, 119394.	5.7	76
15	Micro-nanorobots: important considerations when developing novel drug delivery platforms. Expert Opinion on Drug Delivery, 2019, 16, 1259-1275.	2.4	71
16	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
17	In vivo diabetic wound healing with nanofibrous scaffolds modified with gentamicin and recombinant human epidermal growth factor. Journal of Biomedical Materials Research - Part A, 2018, 106, 641-651.	2.1	64
18	Sperm Cell Driven Microrobotsâ€"Emerging Opportunities and Challenges for Biologically Inspired Robotic Design. Micromachines, 2020, 11, 448.	1.4	64

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19	Carbon Nanotube-Induced Loss of Multicellular Chirality on Micropatterned Substrate Is Mediated by Oxidative Stress. ACS Nano, 2014, 8, 2196-2205.	7.3	56
20	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
21	Microâ€nanopatterning as tool to study the role of physicochemical properties on cellâ€“surface interactions. Journal of Biomedical Materials Research - Part A, 2013, 101, 3019-3032.	2.1	49
22	In Vivo Biocompatibility of Electrospun Biodegradable Dual Carrier (Antibiotic + Growth Factor) in a Mouse Modelâ€”Implications for Rapid Wound Healing. Pharmaceutics, 2019, 11, 180.	2.0	49
23	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
24	Sustainable Agriculture through Multidisciplinary Seed Nanopriming: Prospects of Opportunities and Challenges. Cells, 2021, 10, 2428.	1.8	48
25	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
26	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. Scientific Reports, 2015, 5, 7847.	1.6	45
27	Cancer cells biomineralize ionic gold into nanoparticles-microplates via secreting defense proteins with specific gold-binding peptides. Acta Biomaterialia, 2018, 71, 61-71.	4.1	45
28	Anisotropic Gold Nanostructures: Optimization via in Silico Modeling for Hyperthermia. ACS Applied Nano Materials, 2018, 1, 6205-6216.	2.4	45
29	Biomineralized Anisotropic Gold Microplateâ€“Macrophage Interactions Reveal Frustrated Phagocytosis-like Phenomenon: A Novel Paclitaxel Drug Delivery Vehicle. ACS Applied Materials & Interfaces, 2014, 6, 14679-14689.	4.0	44
30	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
31	The Adoption of Three-Dimensional Additive Manufacturing from Biomedical Material Design to 3D Organ Printing. Applied Sciences (Switzerland), 2019, 9, 811.	1.3	43
32	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
33	Patterned and Specific Attachment of Bacteria on Biohybrid Bacteriaâ€Đriven Microswimmers. Advanced Healthcare Materials, 2016, 5, 2325-2331.	3.9	42
34	Nanoparticle induced barrier function assessment at liquidâ€“liquid and airâ€“liquid interface in novel human lung epithelia cell lines. Toxicology Research, 2019, 8, 1016-1027.	0.9	41
35	Nanomaterials: New Generation Therapeutics in Wound Healing and Tissue Repair. Current Nanoscience, 2010, 6, 577-586.	0.7	40
36	Gene-gene interactions among coding genes of iron-homeostasis proteins and APOE-alleles in cognitive impairment diseases. PLoS ONE, 2018, 13, e0193867.	1.1	40

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37	Incorporation of Terbium into a Microalga Leads to Magnetotactic Swimmers. Advanced Biology, 2018, 2, 1800039.	3.0	39
38	Nitrogen doped carbon quantum dots demonstrate no toxicity underin vitroconditions in a cervical cell line andin vivoin Swiss albino mice. Toxicology Research, 2019, 8, 395-406.	0.9	39
39	Evaluating Particle Emissions and Toxicity of 3D Pen Printed Filaments with Metal Nanoparticles As Additives: In Vitro and in Silico Discriminant Function Analysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 11724-11737.	3.2	39
40	Biophysicochemical Perspective of Nanoparticle Compatibility: A Critically Ignored Parameter in Nanomedicine. Journal of Nanoscience and Nanotechnology, 2014, 14, 402-414.	0.9	37
41	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
42	Biofilm formation on nanostructured titanium oxide surfaces and a micro/nanofabrication-based preventive strategy using colloidal lithography. Biofabrication, 2012, 4, 025001.	3.7	35
43	Cellular and Nuclear Alignment Analysis for Determining Epithelial Cell Chirality. Annals of Biomedical Engineering, 2016, 44, 1475-1486.	1.3	35
44	Emerging Technologies for In Vitro Inhalation Toxicology. Advanced Healthcare Materials, 2021, 10, e2100633.	3.9	34
45	Seed-mediated synthesis of plasmonic gold nanoribbons using cancer cells for hyperthermia applications. Journal of Materials Chemistry B, 2018, 6, 7573-7581.	2.9	32
46	Graphene Oxide Synergistically Enhances Antibiotic Efficacy in Vancomycin-Resistant Staphylococcus aureus. ACS Applied Bio Materials, 2019, 2, 1148-1157.	2.3	31
47	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
48	ToF-SIMS 3D imaging unveils important insights on the cellular microenvironment during biomineralization of gold nanostructures. Scientific Reports, 2020, 10, 261.	1.6	31
49	Helminthicidal and Larvicidal Potentials of Biogenic Silver Nanoparticles Synthesized from Medicinal Plant Momordica charantia. Medicinal Chemistry, 2019, 15, 781-789.	0.7	29
50	Hydrophobic pinning with copper nanowhiskers leads to bactericidal properties. PLoS ONE, 2017, 12, e0175428.	1.1	28
51	Mechanical Coupling of Puller and Pusher Active Microswimmers Influences Motility. Langmuir, 2020, 36, 5435-5443.	1.6	28
52	Theranostic Implications of Nanotechnology in Multiple Sclerosis: A Future Perspective. Autoimmune Diseases, 2012, 2012, 1-12.	2.7	27
53	Nanobiomaterials for vascular biology and wound management: A review. Veins and Lymphatics, 2018, 7, .	0.1	27
54	Peptide-Induced Biomineralization of Tin Oxide (SnO₂) Nanoparticles for Antibacterial Applications. Journal of Nanoscience and Nanotechnology, 2019, 19, 5674-5686.	0.9	27

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55	Traditional Herbal Remedies with a Multifunctional Therapeutic Approach as an Implication in COVID-19 Associated Co-Infections. Coatings, 2020, 10, 761.	1.2	27
56	Parametric Optimization of an Airâ€“Liquid Interface System for Flow-Through Inhalation Exposure to Nanoparticles: Assessing Dosimetry and Intracellular Uptake of CeO2 Nanoparticles. Nanomaterials, 2020, 10, 2369.	1.9	25
57	Investigation of the Associations between a Nanomaterialâ€™s Microrheology and Toxicology. ACS Omega, 2022, 7, 13985-13997.	1.6	25
58	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
59	Recent Advances in Plant Nanobionics and Nanobiosensors for Toxicology Applications. Current Nanoscience, 2020, 16, 27-41.	0.7	23
60	Perspectives on the Technological Aspects and Biomedical Applications of Virusâ€Like Particles/Nanoparticles in Reproductive Biology: Insights on the Medicinal and Toxicological Outlook. Advanced NanoBiomed Research, 2022, 2, .	1.7	23
61	Genetics and Epigenetics of One-Carbon Metabolism Pathway in Autism Spectrum Disorder: A Sex-Specific Brain Epigenome?. Genes, 2021, 12, 782.	1.0	22
62	Top-Down Versus Bottom-Up Nanoengineering Routes to Design Advanced Oropharmacological Products. Current Pharmaceutical Design, 2016, 22, 1534-1545.	0.9	22
63	Biofilm inhibition in Candida albicans with biogenic hierarchical zinc-oxide nanoparticles. Materials Science and Engineering C, 2022, 134, 112592.	3.8	22
64	Threeâ€dimensional patterning in biomedicine: Importance and applications in neuropharmacology. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1369-1382.	1.6	20
65	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
66	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
67	In Silico Modeling as a Perspective in Developing Potential Vaccine Candidates and Therapeutics for COVID-19. Coatings, 2021, 11, 1273.	1.2	19
68	Editorial (Thematic Issue: Recent Trends in Nano-Biotechnology Reinforcing Contemporary) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Tc	0.9	18
69	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. Advanced Intelligent Systems, 2020, 2, 2070125.	3.3	18
70	Bottom-UP assembly of nanorobots: extending synthetic biology to complex material design. Frontiers in Nanoscience and Nanotechnology, 2019, 5, .	0.3	18
71	Multiaxial Polarity Determines Individual Cellular and Nuclear Chirality. Cellular and Molecular Bioengineering, 2017, 10, 63-74.	1.0	15
72	Commentary on â€œPeptide-Conjugated Nanoparticles as Targeted Anti-angiogenesis Therapeutic and Diagnostic in Cancerâ€•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

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73	The prospective role of nanobiotechnology in food and food packaging products. Integrative Food, Nutrition and Metabolism, 2018, 5, .	0.3	12
74	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
75	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
76	3D Printing - Evaluating Particle Emissions of a 3D Printing Pen. Journal of Visualized Experiments, 2020, , .	0.2	11
77	Multiple sclerosis takes venous route: CCSVI and liberation therapy. Indian Journal of Medical Sciences, 2010, 64, 337.	0.1	10
78	Biotechnological applications of supersonic cluster beamâ€deposited nanostructured thin films: Bottomâ€up engineering to optimize cellâ€“proteinâ€“surface interactions. Journal of Biomedical Materials Research - Part A, 2013, 101, 2994-3008.	2.1	10
79	Contactless and Hassle Free Real Time Heart Rate Measurement with Facial Video. Journal of Cardiac Critical Care TSS, 2017, 01, 024-029.	0.0	10
80	Self-Assembly of DNA-Grafted Colloids: A Review of Challenges. Micromachines, 2022, 13, 1102.	1.4	10
81	Nanoengineering Approaches to Design Advanced Dental Materials for Clinical Applications. Journal of Bionanoscience, 2010, 4, 53-65.	0.4	9
82	Combinatory Effects of Cerium Dioxide Nanoparticles and Acetaminophen on the Liverâ€”A Case Study of Low-Dose Interactions in Human HuH-7 Cells. International Journal of Molecular Sciences, 2021, 22, 6866.	1.8	8
83	Micro/nanoplastics: an emerging environmental concern for the future decade. Frontiers in Nanoscience and Nanotechnology, 2021, 7, .	0.3	5
84	High throughput array technologies: Expanding applications from clinics to applied research. Frontiers in Nanoscience and Nanotechnology, 2019, 5, .	0.3	4