

Ajay Vikram Singh

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7121598/publications.pdf>

Version: 2024-02-01

84
papers

4,089
citations

94433

37
h-index

128289

60
g-index

84
all docs

84
docs citations

84
times ranked

4856
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioengineered and biohybrid bacteria-based systems for drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2016, 106, 27-44.	13.7	262
2	Quantitative Characterization of the Influence of the Nanoscale Morphology of Nanostructured Surfaces on Bacterial Adhesion and Biofilm Formation. <i>PLoS ONE</i> , 2011, 6, e25029.	2.5	233
3	Anomalous Venous Blood Flow and Iron Deposition in Multiple Sclerosis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2009, 29, 1867-1878.	4.3	181
4	Synthesis of gold, silver and their alloy nanoparticles using bovine serum albumin as foaming and stabilizing agent. <i>Journal of Materials Chemistry</i> , 2005, 15, 5115.	6.7	168
5	Microemulsion-Based Soft Bacteria-Driven Microswimmers for Active Cargo Delivery. <i>ACS Nano</i> , 2017, 11, 9759-9769.	14.6	157
6	Artificial Intelligence and Machine Learning in Computational Nanotoxicology: Unlocking and Empowering Nanomedicine. <i>Advanced Healthcare Materials</i> , 2020, 9, e1901862.	7.6	157
7	Review of emerging concepts in nanotoxicology: opportunities and challenges for safer nanomaterial design. <i>Toxicology Mechanisms and Methods</i> , 2019, 29, 378-387.	2.7	147
8	Machine-Learning-Based Approach to Decode the Influence of Nanomaterial Properties on Their Interaction with Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 1943-1955.	8.0	101
9	Biological Synthesis of Copper Oxide Nano Particles Using <i>Escherichia coli</i> . <i>Current Nanoscience</i> , 2010, 6, 365-369.	1.2	99
10	Bio-inspired approaches to design smart fabrics. <i>Materials & Design</i> , 2012, 36, 829-839.	5.1	97
11	Targeted Drug Delivery and Imaging Using Mobile Milli/Microrobots: A Promising Future Towards Theranostic Pharmaceutical Design. <i>Current Pharmaceutical Design</i> , 2016, 22, 1418-1428.	1.9	96
12	Redox metals homeostasis in multiple sclerosis and amyotrophic lateral sclerosis: a review. <i>Cell Death and Disease</i> , 2018, 9, 348.	6.3	82
13	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000084.	6.1	77
14	Multifunctional magnetic hairbot for untethered osteogenesis, ultrasound contrast imaging and drug delivery. <i>Biomaterials</i> , 2019, 219, 119394.	11.4	76
15	Micro-nanorobots: important considerations when developing novel drug delivery platforms. <i>Expert Opinion on Drug Delivery</i> , 2019, 16, 1259-1275.	5.0	71
16	Emerging Application of Nanorobotics and Artificial Intelligence To Cross the BBB: Advances in Design, Controlled Maneuvering, and Targeting of the Barriers. <i>ACS Chemical Neuroscience</i> , 2021, 12, 1835-1853.	3.5	66
17	<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.	4.0	64
18	Sperm Cell Driven Microrobots—Emerging Opportunities and Challenges for Biologically Inspired Robotic Design. <i>Micromachines</i> , 2020, 11, 448.	2.9	64

#	ARTICLE	IF	CITATIONS
19	Carbon Nanotube-Induced Loss of Multicellular Chirality on Micropatterned Substrate Is Mediated by Oxidative Stress. <i>ACS Nano</i> , 2014, 8, 2196-2205.	14.6	56
20	Nanoparticle Enabled Drug Delivery Across the Blood Brain Barrier: in vivo and in vitro Models, Opportunities and Challenges. <i>Current Pharmaceutical Biotechnology</i> , 2014, 14, 1201-1212.	1.6	55
21	Micro-nanopatterning as tool to study the role of physicochemical properties on cell-surface interactions. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101, 3019-3032.	4.0	49
22	In Vivo Biocompatibility of Electrospun Biodegradable Dual Carrier (Antibiotic + Growth Factor) in a Mouse Model—Implications for Rapid Wound Healing. <i>Pharmaceutics</i> , 2019, 11, 180.	4.5	49
23	Review: Interplay of Iron Metallobiology, Metalloproteinases, and FXIII, and Role of Their Gene Variants in Venous Leg Ulcer. <i>International Journal of Lower Extremity Wounds</i> , 2010, 9, 166-179.	1.1	48
24	Sustainable Agriculture through Multidisciplinary Seed Nanopriming: Prospects of Opportunities and Challenges. <i>Cells</i> , 2021, 10, 2428.	4.1	48
25	Investigation of in vitro cytotoxicity of the redox state of ionic iron in neuroblastoma cells. <i>Journal of Neurosciences in Rural Practice</i> , 2012, 03, 301-310.	0.8	45
26	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. <i>Scientific Reports</i> , 2015, 5, 7847.	3.3	45
27	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.	8.3	45
28	Anisotropic Gold Nanostructures: Optimization via in Silico Modeling for Hyperthermia. <i>ACS Applied Nano Materials</i> , 2018, 1, 6205-6216.	5.0	45
29	Biomineralized Anisotropic Gold Microplate—Macrophage Interactions Reveal Frustrated Phagocytosis-like Phenomenon: A Novel Paclitaxel Drug Delivery Vehicle. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14679-14689.	8.0	44
30	Advances in Smoking Related In Vitro Inhalation Toxicology: A Perspective Case of Challenges and Opportunities from Progresses in Lung-on-Chip Technologies. <i>Chemical Research in Toxicology</i> , 2021, 34, 1984-2002.	3.3	44
31	The Adoption of Three-Dimensional Additive Manufacturing from Biomedical Material Design to 3D Organ Printing. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 811.	2.5	43
32	Polymorphisms in the genes coding for iron binding and transporting proteins are associated with disability, severity, and early progression in multiple sclerosis. <i>BMC Medical Genetics</i> , 2012, 13, 70.	2.1	42
33	Patterned and Specific Attachment of Bacteria on Biohybrid Bacteria-Driven Microswimmers. <i>Advanced Healthcare Materials</i> , 2016, 5, 2325-2331.	7.6	42
34	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.	2.1	41
35	Nanomaterials: New Generation Therapeutics in Wound Healing and Tissue Repair. <i>Current Nanoscience</i> , 2010, 6, 577-586.	1.2	40
36	Gene-gene interactions among coding genes of iron-homeostasis proteins and APOE-alleles in cognitive impairment diseases. <i>PLoS ONE</i> , 2018, 13, e0193867.	2.5	40

#	ARTICLE	IF	CITATIONS
37	Incorporation of Terbium into a Microalga Leads to Magnetotactic Swimmers. <i>Advanced Biology</i> , 2018, 2, 1800039.	3.0	39
38	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. <i>Toxicology Research</i> , 2019, 8, 395-406.	2.1	39
39	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. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11724-11737.	6.7	39
40	Biophysicochemical Perspective of Nanoparticle Compatibility: A Critically Ignored Parameter in Nanomedicine. <i>Journal of Nanoscience and Nanotechnology</i> , 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. <i>RSC Advances</i> , 2022, 12, 10467-10488.	3.6	37
42	Biofilm formation on nanostructured titanium oxide surfaces and a micro/nanofabrication-based preventive strategy using colloidal lithography. <i>Biofabrication</i> , 2012, 4, 025001.	7.1	35
43	Cellular and Nuclear Alignment Analysis for Determining Epithelial Cell Chirality. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1475-1486.	2.5	35
44	Emerging Technologies for In Vitro Inhalation Toxicology. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100633.	7.6	34
45	Seed-mediated synthesis of plasmonic gold nanoribbons using cancer cells for hyperthermia applications. <i>Journal of Materials Chemistry B</i> , 2018, 6, 7573-7581.	5.8	32
46	Graphene Oxide Synergistically Enhances Antibiotic Efficacy in Vancomycin-Resistant <i>Staphylococcus aureus</i> . <i>ACS Applied Bio Materials</i> , 2019, 2, 1148-1157.	4.6	31
47	Emerging paradigm against global antimicrobial resistance via bioprospecting of mushroom into novel nanotherapeutics development. <i>Trends in Food Science and Technology</i> , 2020, 106, 333-344.	15.1	31
48	ToF-SIMS 3D imaging unveils important insights on the cellular microenvironment during biomineralization of gold nanostructures. <i>Scientific Reports</i> , 2020, 10, 261.	3.3	31
49	Helminthocidal and Larvicidal Potentials of Biogenic Silver Nanoparticles Synthesized from Medicinal Plant <i>Momordica charantia</i> . <i>Medicinal Chemistry</i> , 2019, 15, 781-789.	1.5	29
50	Hydrophobic pinning with copper nanowhiskers leads to bactericidal properties. <i>PLoS ONE</i> , 2017, 12, e0175428.	2.5	28
51	Mechanical Coupling of Puller and Pusher Active Microswimmers Influences Motility. <i>Langmuir</i> , 2020, 36, 5435-5443.	3.5	28
52	Theranostic Implications of Nanotechnology in Multiple Sclerosis: A Future Perspective. <i>Autoimmune Diseases</i> , 2012, 2012, 1-12.	0.6	27
53	Nanobiomaterials for vascular biology and wound management: A review. <i>Veins and Lymphatics</i> , 2018, 7, .	0.1	27
54	Peptide-Induced Biomineralization of Tin Oxide (SnO ₂) Nanoparticles for Antibacterial Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 5674-5686.	0.9	27

#	ARTICLE	IF	CITATIONS
55	Traditional Herbal Remedies with a Multifunctional Therapeutic Approach as an Implication in COVID-19 Associated Co-Infections. <i>Coatings</i> , 2020, 10, 761.	2.6	27
56	Parametric Optimization of an Air-Liquid Interface System for Flow-Through Inhalation Exposure to Nanoparticles: Assessing Dosimetry and Intracellular Uptake of CeO ₂ Nanoparticles. <i>Nanomaterials</i> , 2020, 10, 2369.	4.1	25
57	Investigation of the Associations between a Nanomaterial's Microrheology and Toxicology. <i>ACS Omega</i> , 2022, 7, 13985-13997.	3.5	25
58	Interaction of Bacterial Cells with Cluster-Assembled Nanostructured Titania Surfaces: An Atomic Force Microscopy Study. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 77-85.	0.9	24
59	Recent Advances in Plant Nanobionics and Nanobiosensors for Toxicology Applications. <i>Current Nanoscience</i> , 2020, 16, 27-41.	1.2	23
60	Perspectives on the Technological Aspects and Biomedical Applications of Virus-Like Particles/Nanoparticles in Reproductive Biology: Insights on the Medicinal and Toxicological Outlook. <i>Advanced NanoBiomed Research</i> , 2022, 2, .	3.6	23
61	Genetics and Epigenetics of One-Carbon Metabolism Pathway in Autism Spectrum Disorder: A Sex-Specific Brain Epigenome?. <i>Genes</i> , 2021, 12, 782.	2.4	22
62	Top-Down Versus Bottom-Up Nanoengineering Routes to Design Advanced Oropharmacological Products. <i>Current Pharmaceutical Design</i> , 2016, 22, 1534-1545.	1.9	22
63	Biofilm inhibition in <i>Candida albicans</i> with biogenic hierarchical zinc-oxide nanoparticles. <i>Materials Science and Engineering C</i> , 2022, 134, 112592.	7.3	22
64	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.	3.4	20
65	Interfacial Water in the SARS Spike Protein: Investigating the Interaction with Human ACE2 Receptor and In Vitro Uptake in A549 Cells. <i>Langmuir</i> , 2022, 38, 7976-7988.	3.5	20
66	Rapid prototyping of nano- and micro-patterned substrates for the control of cell neuritogenesis by topographic and chemical cues. <i>Materials Science and Engineering C</i> , 2011, 31, 892-899.	7.3	19
67	In Silico Modeling as a Perspective in Developing Potential Vaccine Candidates and Therapeutics for COVID-19. <i>Coatings</i> , 2021, 11, 1273.	2.6	19
68	Editorial (Thematic Issue: Recent Trends in Nano-Biotechnology Reinforcing Contemporary) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 To</i>	1.9	18
69	Artificial Intelligence and Machine Learning Empower Advanced Biomedical Material Design to Toxicity Prediction. <i>Advanced Intelligent Systems</i> , 2020, 2, 2070125.	6.1	18
70	Bottom-UP assembly of nanorobots: extending synthetic biology to complex material design. <i>Frontiers in Nanoscience and Nanotechnology</i> , 2019, 5, .	0.3	18
71	Multiaxial Polarity Determines Individual Cellular and Nuclear Chirality. <i>Cellular and Molecular Bioengineering</i> , 2017, 10, 63-74.	2.1	15
72	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. <i>Current Medicinal Chemistry</i> , 2020, 27, 2927-2928.	2.4	13

#	ARTICLE	IF	CITATIONS
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.	7.6	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.	4.1	11
76	3D Printing - Evaluating Particle Emissions of a 3D Printing Pen. Journal of Visualized Experiments, 2020, , .	0.3	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 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.	4.0	10
79	Contactless and Hassle Free Real Time Heart Rate Measurement with Facial Video. Journal of Cardiac Critical Care TSS, 2017, 01, 024-029.	0.1	10
80	Self-Assembly of DNA-Grafted Colloids: A Review of Challenges. Micromachines, 2022, 13, 1102.	2.9	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 Liver-A Case Study of Low-Dose Interactions in Human HuH-7 Cells. International Journal of Molecular Sciences, 2021, 22, 6866.	4.1	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