

Akhilesh Rai

List of Publications by Year in descending order

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28
papers

5,574
citations

516215

16
h-index

552369

26
g-index

28
all docs

28
docs citations

28
times ranked

6811
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid synthesis of Au, Ag, and bimetallic Au core–Ag shell nanoparticles using Neem (Azadirachta) Tj ETQq1 1 0.784314 rgBT JOverbo	5.0	2,129
2	Biological synthesis of triangular gold nanoprisms. <i>Nature Materials</i> , 2004, 3, 482-488.	13.3	1,409
3	Controlling the Optical Properties of Lemongrass Extract Synthesized Gold Nanotriangles and Potential Application in Infrared-Absorbing Optical Coatings. <i>Chemistry of Materials</i> , 2005, 17, 566-572.	3.2	563
4	Role of Halide Ions and Temperature on the Morphology of Biologically Synthesized Gold Nanotriangles. <i>Langmuir</i> , 2006, 22, 736-741.	1.6	393
5	Antibiotic mediated synthesis of gold nanoparticles with potent antimicrobial activity and their application in antimicrobial coatings. <i>Journal of Materials Chemistry</i> , 2010, 20, 6789.	6.7	368
6	One-step synthesis of high-density peptide-conjugated gold nanoparticles with antimicrobial efficacy in a systemic infection model. <i>Biomaterials</i> , 2016, 85, 99-110.	5.7	127
7	High-density antimicrobial peptide coating with broad activity and low cytotoxicity against human cells. <i>Acta Biomaterialia</i> , 2016, 33, 64-77.	4.1	93
8	Synthesis of triangular Au core–Ag shell nanoparticles. <i>Materials Research Bulletin</i> , 2007, 42, 1212-1220.	2.7	71
9	High Antimicrobial Activity and Low Human Cell Cytotoxicity of Core–Shell Magnetic Nanoparticles Functionalized with an Antimicrobial Peptide. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 11366-11378.	4.0	56
10	Antimicrobial peptide-gold nanoscale therapeutic formulation with high skin regenerative potential. <i>Journal of Controlled Release</i> , 2017, 262, 58-71.	4.8	48
11	Antimicrobial peptide-based materials: opportunities and challenges. <i>Journal of Materials Chemistry B</i> , 2022, 10, 2384-2429.	2.9	47
12	Facile Fabrication of Uniform Silica Films with Tunable Physical Properties Using Silicatein Protein from Sponges. <i>Langmuir</i> , 2010, 26, 4152-4159.	1.6	46
13	MicroRNA-124-loaded nanoparticles increase survival and neuronal differentiation of neural stem cells in vitro but do not contribute to stroke outcome in vivo. <i>PLoS ONE</i> , 2018, 13, e0193609.	1.1	31
14	A nanoformulation for the preferential accumulation in adult neurogenic niches. <i>Journal of Controlled Release</i> , 2018, 284, 57-72.	4.8	30
15	Mussel adhesive protein inspired coatings: a versatile method to fabricate silica films on various surfaces. <i>Journal of Materials Chemistry</i> , 2012, 22, 4790.	6.7	29
16	Biomedical applications of the peptide decorated gold nanoparticles. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 186-215.	5.1	21
17	Antimicrobial and pro-angiogenic properties of soluble and nanoparticle-immobilized LL37 peptides. <i>Biomaterials Science</i> , 2021, 9, 8153-8159.	2.6	16
18	Cecropin–Melittin Functionalized Polyurethane Surfaces Prevent <i>Staphylococcus epidermidis</i> Adhesion without Inducing Platelet Adhesion and Activation. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801390.	1.9	14

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19	Entrapment of commercially important invertase in silica particles at physiological pH and the effect of pH and temperature on enzyme activity. <i>Materials Science and Engineering C</i> , 2012, 32, 785-789.	3.8	13
20	Atomistic-Level Investigation of a LL37-Conjugated Gold Nanoparticle By Well-Tempered Metadynamics. <i>Journal of Physical Chemistry B</i> , 2018, 122, 8359-8366.	1.2	12
21	Antimicrobial Peptide-Tether Dressing Able to Enhance Wound Healing by Tissue Contact. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 24213-24228.	4.0	12
22	Fabrication of Tuneable Thickness Silica Films on Solid Surfaces Using Amines and Proteins. <i>Silicon</i> , 2009, 1, 91-101.	1.8	10
23	Fabrication, characterisation and performance of hydrophilic and super-hydrophilic silica as cell culture surfaces. <i>Journal of Materials Chemistry</i> , 2012, 22, 12141.	6.7	9
24	Findings on the interaction of the antimicrobial peptide cecropin-melittin with a gold surface from molecular dynamics studies. <i>European Biophysics Journal</i> , 2017, 46, 247-256.	1.2	8
25	A light-triggerable formulation to control the stability of pro-angiogenic transcription factor hypoxia inducible factor-1 \pm (HIF-1 \pm). <i>Nanoscale</i> , 2020, 12, 9935-9942.	2.8	7
26	Induced pluripotent stem cell-derived vascular networks to screen nano-bio interactions. <i>Nanoscale Horizons</i> , 2021, 6, 245-259.	4.1	7
27	Nanoparticle-Based Drug Delivery Systems: Promising Approaches Against Bacterial Infections. , 2019, , 605-633.		5
28	Experimental Validation & Performance Analysis of 100kW Solar Photovoltaic System. , 2018, , .		0