

Akash Bachhuka

List of Publications by Year in descending order

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Version: 2024-02-01

36
papers

1,239
citations

430754

18
h-index

360920

35
g-index

37
all docs

37
docs citations

37
times ranked

1949
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning Chemistry and Topography of Nanoengineered Surfaces to Manipulate Immune Response for Bone Regeneration Applications. <i>ACS Nano</i> , 2017, 11, 4494-4506.	7.3	223
2	Nanotopography-based strategy for the precise manipulation of osteoimmunomodulation in bone regeneration. <i>Nanoscale</i> , 2017, 9, 18129-18152.	2.8	113
3	Innate Immunity and Biomaterials at the Nexus: Friends or Foes. <i>BioMed Research International</i> , 2015, 2015, 1-23.	0.9	105
4	The influence of substrate stiffness gradients on primary human dermal fibroblasts. <i>Biomaterials</i> , 2013, 34, 5070-5077.	5.7	90
5	Surface Modification by Allylamine Plasma Polymerization Promotes Osteogenic Differentiation of Human Adipose-Derived Stem Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 9733-9741.	4.0	88
6	The Role of Surface Nanotopography and Chemistry on Primary Neutrophil and Macrophage Cellular Responses. <i>Advanced Healthcare Materials</i> , 2016, 5, 956-965.	3.9	86
7	A substrate independent approach for generation of surface gradients. <i>Thin Solid Films</i> , 2013, 528, 106-110.	0.8	52
8	Surface Chemical Gradient Affects the Differentiation of Human Adipose-Derived Stem Cells via ERK1/2 Signaling Pathway. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 18473-18482.	4.0	47
9	The contribution of inflammasome components on macrophage response to surface nanotopography and chemistry. <i>Scientific Reports</i> , 2016, 6, 26207.	1.6	36
10	Surface chemical functionalities affect the behavior of human adipose-derived stem cells in vitro. <i>Applied Surface Science</i> , 2013, 270, 473-479.	3.1	31
11	Effect of Surface Chemical Functionalities on Collagen Deposition by Primary Human Dermal Fibroblasts. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 23767-23775.	4.0	31
12	Nanotopography mediated osteogenic differentiation of human dental pulp derived stem cells. <i>Nanoscale</i> , 2017, 9, 14248-14258.	2.8	31
13	Creating Nano-engineered Biomaterials with Well-Defined Surface Descriptors. <i>ACS Applied Nano Materials</i> , 2018, 1, 2796-2807.	2.4	28
14	Surface nanotopography guides kidney-derived stem cell differentiation into podocytes. <i>Acta Biomaterialia</i> , 2017, 56, 171-180.	4.1	27
15	The Interplay between Surface Nanotopography and Chemistry Modulates Collagen I and III Deposition by Human Dermal Fibroblasts. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5874-5884.	4.0	24
16	Chronic Obstructive Pulmonary Disease and the Cardiovascular System: Vascular Repair and Regeneration as a Therapeutic Target. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 649512.	1.1	23
17	Inflammasome components ASC and AIM2 modulate the acute phase of biomaterial implant-induced foreign body responses. <i>Scientific Reports</i> , 2016, 6, 20635.	1.6	21
18	The Role of Controlled Surface Topography and Chemistry on Mouse Embryonic Stem Cell Attachment, Growth and Self-Renewal. <i>Materials</i> , 2017, 10, 1081.	1.3	21

#	ARTICLE	IF	CITATIONS
19	Hybrid core/shell microparticles and their use for understanding biological processes. <i>Journal of Colloid and Interface Science</i> , 2015, 457, 9-17.	5.0	18
20	A spiropyran with enhanced fluorescence: A bright, photostable and red-emitting calcium sensor. <i>Tetrahedron</i> , 2018, 74, 1240-1244.	1.0	17
21	The co-effect of surface topography gradient fabricated via immobilization of gold nanoparticles and surface chemistry via deposition of plasma polymerized film of allylamine/acrylic acid on osteoblast-like cell behavior. <i>Applied Surface Science</i> , 2019, 473, 838-847.	3.1	14
22	Synergistic Effect of Surface Chemistry and Surface Topography Gradient on Osteogenic/Adipogenic Differentiation of hMSCs. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 30306-30316.	4.0	14
23	Controlled release and bioactivity of the monoclonal antibody rituximab from a porous matrix: A potential in situ therapeutic device. <i>Materials Letters</i> , 2014, 130, 210-214.	1.3	12
24	A Rationally Designed, Spiropyran-Based Chemosensor for Magnesium. <i>Chemosensors</i> , 2018, 6, 17.	1.8	11
25	Surface Functionalization of Exposed Core Glass Optical Fiber for Metal Ion Sensing. <i>Sensors</i> , 2019, 19, 1829.	2.1	10
26	Modulation of Macrophages Differentiation by Nanoscale-Engineered Geometric and Chemical Features. <i>ACS Applied Bio Materials</i> , 2020, 3, 1496-1505.	2.3	9
27	Biosensing. , 2019, , 105-126.		8
28	The formation of a functional retinal pigment epithelium occurs on porous polytetrafluoroethylene substrates independently of the surface chemistry. <i>Journal of Materials Science: Materials in Medicine</i> , 2017, 28, 124.	1.7	7
29	Enhancing Forbidden Light Propagation in Nanoporous Anodic Alumina Gradient-Index Filters by Alcohol Additives. <i>ACS Applied Nano Materials</i> , 2020, 3, 12115-12129.	2.4	7
30	Surface nanotopography mediated albumin adsorption, unfolding and modulation of early innate immune responses. <i>Materials Today Advances</i> , 2021, 12, 100187.	2.5	7
31	Surface chemistry mediated albumin adsorption, conformational changes and influence on innate immune responses. <i>Applied Surface Science</i> , 2022, 596, 153518.	3.1	7
32	Selective deposition of CaCO ₃ on chemical gradient surface generated by plasma polymerization and its effect on cell adhesion. <i>Materials Letters</i> , 2017, 186, 90-93.	1.3	3
33	Field Deployable Method for Gold Detection Using Gold Pre-Concentration on Functionalized Surfaces. <i>Sensors</i> , 2020, 20, 492.	2.1	3
34	Emerging nanomaterials for targeting peroxisomes. <i>Materials Today Advances</i> , 2022, 15, 100265.	2.5	3
35	Plasma polymer surface modified expanded polytetrafluoroethylene promotes epithelial monolayer formation in vitro and can be transplanted into the dystrophic rat subretinal space. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2021, 15, 49-62.	1.3	2
36	Mechanistic Insight in Surface Nanotopography Driven Cellular Migration. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 4921-4932.	2.6	2