Chor Yong Tay

List of Publications by Year
in descending order

85	4,018	117453	118652
papers	citations	34 h-index	62 g-index

86	86	86	6186
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Understanding and exploiting nanoparticles' intimacy with the blood vessel and blood. Chemical Society Reviews, 2015, 44, 8174-8199.	18.7	268
2	Gold Nanoparticles Induced Endothelial Leakiness Depends on Particle Size and Endothelial Cell Origin. ACS Nano, 2017, 11, 5020-5030.	7.3	218
3	Back to Basics: Exploiting the Innate Physicoâ€chemical Characteristics of Nanomaterials for Biomedical Applications. Advanced Functional Materials, 2014, 24, 5936-5955.	7.8	192
4	Nanoparticles Strengthen Intracellular Tension and Retard Cellular Migration. Nano Letters, 2014, 14, 83-88.	4.5	191
5	Nature-Inspired DNA Nanosensor for Real-Time in Situ Detection of mRNA in Living Cells. ACS Nano, 2015, 9, 5609-5617.	7.3	159
6	Micropatterned matrix directs differentiation of human mesenchymal stem cells towards myocardial lineage. Experimental Cell Research, 2010, 316, 1159-1168.	1.2	148
7	Cellular processing and destinies of artificial DNA nanostructures. Chemical Society Reviews, 2016, 45, 4199-4225.	18.7	146
8	Effect of zinc oxide nanomaterials-induced oxidative stress on the p53 pathway. Biomaterials, 2013, 34, 10133-10142.	5.7	141
9	Nanoparticle Density: A Critical Biophysical Regulator of Endothelial Permeability. ACS Nano, 2017, 11, 2764-2772.	7.3	133
10	Microâ€Nanoâ€engineered Cellular Responses for Soft Tissue Engineering and Biomedical Applications. Small, 2011, 7, 1361-1378.	5.2	127
11	Mechanistic Investigation of the Biological Effects of SiO₂, TiO₂, and ZnO Nanoparticles on Intestinal Cells. Small, 2015, 11, 3458-3468.	5.2	125
12	Novel Theranostic DNA Nanoscaffolds for the Simultaneous Detection and Killing of Escherichia coli and Staphylococcus aureus. ACS Applied Materials & Interfaces, 2014, 6, 21822-21831.	4.0	107
13	Mechanical behavior of human mesenchymal stem cells during adipogenic and osteogenic differentiation. Biochemical and Biophysical Research Communications, 2010, 393, 150-155.	1.0	98
14	Biomimicry 3D Gastrointestinal Spheroid Platform for the Assessment of Toxicity and Inflammatory Effects of Zinc Oxide Nanoparticles. Small, 2015, 11, 702-712.	5.2	98
15	Ultrabright organic dots with aggregation-induced emission characteristics for cell tracking. Biomaterials, 2014, 35, 8669-8677.	5.7	96
16	Cellular behavior of human mesenchymal stem cells cultured on single-walled carbon nanotube film. Carbon, 2010, 48, 1095-1104.	5.4	94
17	Presentation matters: Identity of gold nanocluster capping agent governs intracellular uptake and cell metabolism. Nano Research, 2014, 7, 805-815.	5.8	88
18	Nano-hydroxyapatite and Nano-titanium Dioxide Exhibit Different Subcellular Distribution and Apoptotic Profile in Human Oral Epithelium. ACS Applied Materials & Interfaces, 2014, 6, 6248-6256.	4.0	87

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19	Repurposing of Fruit Peel Waste as a Green Reductant for Recycling of Spent Lithium-Ion Batteries. Environmental Science & Technology, 2020, 54, 9681-9692.	4.6	81
20	Thickness sensing of hMSCs on collagen gel directs stem cell fate. Biochemical and Biophysical Research Communications, 2010, 401, 287-292.	1.0	74
21	Electrochemical Quantification of <i>Escherichia coli</i> with DNA Nanostructure. Advanced Functional Materials, 2015, 25, 3840-3846.	7.8	72
22	Toxicity profiling of water contextual zinc oxide, silver, and titanium dioxide nanoparticles in human oral and gastrointestinal cell systems. Environmental Toxicology, 2015, 30, 1459-1469.	2.1	54
23	Value-added products from thermochemical treatments of contaminated e-waste plastics. Chemosphere, 2021, 269, 129409.	4.2	54
24	Bioâ€inspired Micropatterned Platform to Steer Stem Cell Differentiation. Small, 2011, 7, 1416-1421.	5.2	52
25	Bio-inspired micropatterned hydrogel to direct and deconstruct hierarchical processing of geometry-force signals by human mesenchymal stem cells during smooth muscle cell differentiation. NPG Asia Materials, 2015, 7, e199-e199.	3.8	51
26	Materials Stiffnessâ€Dependent Redox Metabolic Reprogramming of Mesenchymal Stem Cells for Secretomeâ€Based Therapeutic Angiogenesis. Advanced Healthcare Materials, 2019, 8, e1900929.	3.9	49
27	Index-tunable anti-reflection coatings: Maximizing solar modulation ability for vanadium dioxide-based smart thermochromic glazing. Journal of Alloys and Compounds, 2018, 731, 1197-1207.	2.8	48
28	Reality Check for Nanomaterialâ€Mediated Therapy with 3D Biomimetic Culture Systems. Advanced Functional Materials, 2016, 26, 4046-4065.	7.8	47
29	Mechanoregulation of stem cell fate via micro-/nano-scale manipulation for regenerative medicine. Nanomedicine, 2013, 8, 623-638.	1.7	44
30	A novel and simple microcontact printing technique for tacky, soft substrates and/or complex surfaces in soft tissue engineering. Acta Biomaterialia, 2012, 8, 1267-1272.	4.1	42
31	A Bioâ€inspired Platform to Modulate Myogenic Differentiation of Human Mesenchymal Stem Cells Through Focal Adhesion Regulation. Advanced Healthcare Materials, 2013, 2, 442-449.	3.9	40
32	Soft Material Approach to Induce Oxidative Stress in Mesenchymal Stem Cells for Functional Tissue Repair. ACS Applied Materials & Interfaces, 2016, 8, 26591-26599.	4.0	38
33	Laser induced breakdown spectroscopy for plastic analysis. TrAC - Trends in Analytical Chemistry, 2021, 140, 116280.	5.8	36
34	Reciprocal Response of Human Oral Epithelial Cells to Internalized Silica Nanoparticles. Particle and Particle Systems Characterization, 2013, 30, 784-793.	1.2	34
35	Direct isolation of circulating extracellular vesicles from blood for vascular risk profiling in type 2 diabetes mellitus. Lab on A Chip, 2021, 21, 2511-2523.	3.1	33
36	Anti-migratory and increased cytotoxic effects of novel dual drug-loaded complex hybrid micelles in triple negative breast cancer cells. Nano Research, 2015, 8, 2533-2547.	5.8	31

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37	Mechanoregulation of Cancer-Associated Fibroblast Phenotype in Three-Dimensional Interpenetrating Hydrogel Networks. Langmuir, 2019, 35, 7487-7495.	1.6	31
38	Cyclic tensile loading regulates human mesenchymal stem cell differentiation into neuron-like phenotype. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, s68-s79.	1.3	28
39	Role of Cytoskeletal Tension in the Induction of Cardiomyogenic Differentiation in Micropatterned Human Mesenchymal Stem Cell. Advanced Healthcare Materials, 2015, 4, 1399-1407.	3.9	28
40	Direct and Labelâ€Free Cell Status Monitoring of Spheroids and Microcarriers Using Microfluidic Impedance Cytometry. Small, 2021, 17, e2007500.	5.2	28
41	Decoupling the Direct and Indirect Biological Effects of ZnO Nanoparticles Using a Communicative Dual Cellâ€Type Tissue Construct. Small, 2016, 12, 647-657.	5.2	27
42	A novel human arterial wall-on-a-chip to study endothelial inflammation and vascular smooth muscle cell migration in early atherosclerosis. Lab on A Chip, 2021, 21, 2359-2371.	3.1	27
43	Human keratinocytes adapt to ZnO nanoparticles induced toxicity via complex paracrine crosstalk and Nrf2-proteasomal signal transduction. Nanotoxicology, 2018, 12, 1215-1229.	1.6	25
44	Induction of Myogenic Differentiation of Human Mesenchymal Stem Cells Cultured on Notch Agonist (Jagged-1) Modified Biodegradable Scaffold Surface. ACS Applied Materials & Interfaces, 2014, 6, 1652-1661.	4.0	24
45	Interpenetrating Network of Alginateâ€“Human Adipose Extracellular Matrix Hydrogel for Islet Cells Encapsulation. Macromolecular Rapid Communications, 2020, 41, e2000275.	2.0	23
46	Polyoxometalates for bifunctional applications: Catalytic dye degradation and anticancer activity. Chemosphere, 2022, 286, 131869.	4.2	21
47	Applications, treatments, and reuse of plastics from electrical and electronic equipment. Journal of Industrial and Engineering Chemistry, 2022, 110, 84-99.	2.9	21
48	The gap between endothelial cells: key to the quick escape of nanomaterials?. Nanomedicine, 2014, 9, 1591-1594.	1.7	20
49	Potentâ€Byâ€Design: Amino Acids Mimicking Porous Nanotherapeutics with Intrinsic Anticancer Targeting Properties. Small, 2020, 16, e2003757.	5.2	20
50	Bioinspired short peptide hydrogel for versatile encapsulation and controlled release of growth factor therapeutics. Acta Biomaterialia, 2021, 136, 111-123.	4.1	20
51	A 3D physio-mimetic interpenetrating network-based platform to decode the pro and anti-tumorigenic properties of cancer-associated fibroblasts. Acta Biomaterialia, 2021, 132, 448-460.	4.1	19
52	Pulsed SILAC-based proteomic analysis unveils hypoxia- and serum starvation-induced de novo protein synthesis with PHD finger protein 14 (PHF14) as a hypoxia sensitive epigenetic regulator in cell cycle progression. Oncotarget, 2019, 10, 2136-2150.	0.8	19
53	Engineered Polymeric Biomaterials for Tissue Engineering. Current Tissue Engineering, 2012, 1, 41-53.	0.2	17
54	A Generic Micropatterning Platform to Direct Human Mesenchymal Stem Cells from Different Origins Towards Myogenic Differentiation. Macromolecular Bioscience, 2013, 13, 799-807.	2.1	17

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55	Clarifying the in-situ cytotoxic potential of electronic waste plastics. Chemosphere, 2021, 269, 128719.	4.2	17
56	Exploiting cancer's antioxidative weakness through p53 with nanotoxicology. Nanomedicine, 2014, 9, 369-371.	1.7	15
57	Inflammation Increases Susceptibility of Human Small Airway Epithelial Cells to Pneumonic Nanotoxicity. Small, 2020, 16, 2000963.	5.2	15
58	High-Throughput Screening Platform for Nanoparticle-Mediated Alterations of DNA Repair Capacity. ACS Nano, 2021, 15, 4728-4746.	7.3	14
59	Probing the Role of Integrins in Keratinocyte Migration Using Bioengineered Extracellular Matrix Mimics. ACS Applied Materials & Interfaces, 2017, 9, 36483-36492.	4.0	13
60	Microenvironmental Hypoxia Induces Dynamic Changes in Lung Cancer Synthesis and Secretion of Extracellular Vesicles. Cancers, 2020, 12, 2917.	1.7	13
61	Immobilization ofMucor javanicuslipase by entrapping in alginate-silica hybrid gel beads with simultaneous cross-linking with glutaraldehyde. Biocatalysis and Biotransformation, 2007, 25, 459-463.	1.1	11
62	Molecular Design and Medicinal Applications of Nano-Nitric Oxide Delivery Systems. Current Medicinal Chemistry, 2018, 25, 1420-1432.	1.2	11
63	Investigating the Spatial Distribution of Integrin Î²₁ in Patterned Human Mesenchymal Stem Cells Using Super-Resolution Imaging. ACS Applied Materials & Interfaces, 2014, 6, 15686-15696.	4.0	10
64	Molecular Architecture Governs Cytotoxicity and Gene Transfection Efficacy of Polyethylenimine Based Nanoplexes in Mammalian Cell Lines. Journal of Inorganic and Organometallic Polymers and Materials, 2015, 25, 301-311.	1.9	9
65	Sustainable aquaculture side-streams derived hybrid biocomposite for bone tissue engineering. Materials Science and Engineering C, 2021, 126, 112104.	3.8	7
66	Direct reuse of electronic plastic scraps from computer monitor and keyboard to direct stem cell growth and differentiation. Science of the Total Environment, 2022, 807, 151085.	3.9	7
67	Elucidating the Sizeâ€Dependency of In Vitro Digested Polystyrene Microplastics on Human Intestinal Cells Health and Function. Macromolecular Chemistry and Physics, 2022, 223, .	1.1	7
68	Activated recovery of PVC from contaminated waste extension cord-cable using a weak acid. Chemosphere, 2022, 303, 134878.	4.2	7
69	Modulating Human Mesenchymal Stem Cell Plasticity Using Micropatterning Technique. PLoS ONE, 2014, 9, e113043.	1.1	6
70	Understanding the implications of engineered nanoparticle induced autophagy in human epidermal keratinocytes in vitro. NanoImpact, 2019, 15, 100177.	2.4	6
71	Machine learning-assisted optimization of TBBPA-bis-(2,3-dibromopropyl ether) extraction process from ABS polymer. Chemosphere, 2022, 287, 132128.	4.2	6
72	Printer center nanoparticles alter the DNA repair capacity of human bronchial airway epithelial cells. NanoImpact, 2022, 25, 100379.	2.4	6

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73	Inorganic nanoparticles as tubulin binding agents for cancer therapy. Nanomedicine, 2014, 9, 2075-2077.	1.7	5
74	Nanotoxicity: Mechanistic Investigation of the Biological Effects of SiO₂, TiO₂, and ZnO Nanoparticles on Intestinal Cells (Small 28/2015). Small, 2015, 11, 3390-3390.	5.2	4
75	Zyxin Is Involved in Fibroblast Rigidity Sensing and Durotaxis. Frontiers in Cell and Developmental Biology, 2021, 9, 735298.	1.8	4
76	Nanomedicine: Back to Basics: Exploiting the Innate Physicoâ€chemical Characteristics of Nanomaterials for Biomedical Applications (Adv. Funct. Mater. 38/2014). Advanced Functional Materials, 2014, 24, 5930-5930.	7.8	2
77	Nanotoxicity: Biomimicry 3D Gastrointestinal Spheroid Platform for the Assessment of Toxicity and Inflammatory Effects of Zinc Oxide Nanoparticles (Small 6/2015). Small, 2015, 11, 760-760.	5.2	2
78	Diatom-inspired 2D nitric oxide releasing anti-infective porous nanofrustules. Journal of Materials Chemistry B, 2021, 9, 7229-7237.	2.9	2
79	Synthesis and characterization of a novel azido fluoroalkyl oligoether energetic plasticizer. Journal of Materials Research, 2022, 37, 1296-1308.	1.2	2
80	Biosensors: Electrochemical Quantification of Escherichia coli with DNA Nanostructure (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	7.8	1
81	Highlights from the latest articles in technical and technological advancements in nanotherapeutics. Nanomedicine, 2015, 10, 1047-1049.	1.7	1
82	Forging New Frontiers in Polymer Research and Innovations. Macromolecular Rapid Communications, 2020, 41, e2000521.	2.0	1
83	Multitrack Adaptive Compressive Hyperspectral Imaging for Cell Monitoring Applications. , 2020, , .		1
84	Microfluidics: Direct and Labelâ€Free Cell Status Monitoring of Spheroids and Microcarriers Using Microfluidic Impedance Cytometry (Small 21/2021). Small, 2021, 17, 2170101.	5.2	0
85	Multitrack Compressed Sensing for Faster Hyperspectral Imaging. Sensors, 2021, 21, 5034.	2.1	0