Tolou Shokuhfar

List of Publications by Year
in descending order

68 papers	3,488 citations	201385 27 h-index	143772 57 g-index
68 all docs	68 docs citations	68 times ranked	5439 citing authors

#	Article	IF	Citations
1	A Lightâ€Curable and Tunable Extracellular Matrix Hydrogel for In Situ Sutureâ€Free Corneal Repair. Advanced Functional Materials, 2022, 32, .	7.8	25
2	In Situ Liquidâ€Cell TEM Observation of Multiphase Classical and Nonclassical Nucleation of Calcium Oxalate. Advanced Functional Materials, 2021, 31, 2007736.	7.8	19
3	Polyethylene-BN nanosheets nanocomposites with enhanced thermal and mechanical properties. Composites Science and Technology, 2021, 204, 108631.	3.8	25
4	Fabrication, Rheological, and Compositional Characterization of Thermoresponsive Hydrogel from Cornea. Tissue Engineering - Part C: Methods, 2021, 27, 307-321.	1.1	12
5	2D boron nitride nanosheets for polymer composite materials. Npj 2D Materials and Applications, 2021, 5, .	3.9	110
6	Collagen biomineralization: pathways, mechanisms, and thermodynamics. Emergent Materials, 2021, 4, 1205-1224.	3.2	18
7	In situ visualization of superior nanomechanical flexibility of individual ydroxyapatite nanobelts. Microscopy and Microanalysis, 2021, 27, 1780-1781.	0.2	0
8	In-situ porcine corneal matrix hydrogel as ocular surface bandage. Ocular Surface, 2021, 21, 27-36.	2.2	20
9	Scalable Synthesis of High Entropy Alloy Nanoparticles by Microwave Heating. ACS Nano, 2021, 15, 14928-14937.	7.3	85
10	Optimization of the Mechanical Properties and the Cytocompatibility for the PMMA Nanocomposites Reinforced with the Hydroxyapatite Nanofibers and the Magnesium Phosphate Nanosheets. Materials, 2021, 14, 5893.	1.3	6
11	Continuous 2000â€K droplet-to-particle synthesis. Materials Today, 2020, 35, 106-114.	8.3	43
12	Novel PMMA bone cement nanocomposites containing magnesium phosphate nanosheets and hydroxyapatite nanofibers. Materials Science and Engineering C, 2020, 109, 110497.	3.8	47
13	Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy. Science Advances, 2020, 6, .	4.7	61
14	Combination targeting of â€˜platelets + fibrinâ€™ enhances clot anchorage efficiency of nanoparticles for vascular drug delivery. Nanoscale, 2020, 12, 21255-21270.	2.8	15
15	In Situ TEM Visualization on the Super Flexibility of Multi-layered Hydroxyapatite Nanobelts with Antibacterial Property. Microscopy and Microanalysis, 2020, 26, 1428-1429.	0.2	0
16	TEM Studies on Antibacterial Mechanisms of Black Phosphorous Nanosheets . International Journal of Nanomedicine, 2020, Volume 15, 3071-3085.	3.3	28
17	Assessment of Pressure and Density of Confined Water in Graphene Liquid Cells. Advanced Materials Interfaces, 2020, 7, 1901727.	1.9	8
18	In Situ Visualization of Ferritin Biomineralization via Graphene Liquid Cell-Transmission Electron Microscopy. ACS Biomaterials Science and Engineering, 2020, 6, 3208-3216.	2.6	11

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19	Correlative ex situ and Liquid-Cell TEM Observation of Bacterial Cell Membrane Damage Induced by Rough Surface Topology . International Journal of Nanomedicine, 2020, Volume 15, 1929-1938.	3.3	13
20	Non-Dendritic Zn Electrodeposition Enabled by Zincophilic Graphene Substrates. ACS Applied Materials & Interfaces, 2019, 11, 44077-44089.	4.0	129
21	On the structure and chemistry of iron oxide cores in human heart and human spleen ferritins using graphene liquid cell electron microscopy. Nanoscale, 2019, 11, 16868-16878.	2.8	18
22	Investigation of the magnetosome biomineralization in magnetotactic bacteria using graphene liquid cell â€“ transmission electron microscopy. Nanoscale, 2019, 11, 698-705.	2.8	29
23	In situ graphene liquid cell-transmission electron microscopy study of insulin secretion in pancreatic islet cells. International Journal of Nanomedicine, 2019, Volume 14, 371-382.	3.3	13
24	<i>In Situ</i> Study of Molecular Structure of Water and Ice Entrapped in Graphene Nanovessels. ACS Nano, 2019, 13, 4677-4685.	7.3	27
25	Antiâ€Oxygen Leaking LiCoO₂. Advanced Functional Materials, 2019, 29, 1901110.	7.8	60
26	Advances in Grapheneâ€Based Liquid Cell Electron Microscopy: Working Principles, Opportunities, and Challenges. Small Methods, 2019, 3, 1900026.	4.6	38
27	Imaging of soft materials using in situ liquid-cell transmission electron microscopy. Journal of Physics Condensed Matter, 2019, 31, 103001.	0.7	23
28	<i>In situ</i> visualization of the superior nanomechanical flexibility of individual hydroxyapatite nanobelts. CrystEngComm, 2018, 20, 1031-1036.	1.3	7
29	Facile hydrothermal synthesis of antibacterial multi-layered hydroxyapatite nanostructures with superior flexibility. CrystEngComm, 2018, 20, 1304-1312.	1.3	15
30	Operando liquid cell electron microscopy of discharge and charge kinetics in lithium-oxygen batteries. Nano Energy, 2018, 49, 338-345.	8.2	59
31	The role of electron irradiation history in liquid cell transmission electron microscopy. Science Advances, 2018, 4, eaaq1202.	4.7	47
32	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. Science, 2018, 359, 1489-1494.	6.0	1,065
33	In Situ Transmission Electron Microscopy Explores a New Nanoscale Pathway for Direct Gypsum Formation in Aqueous Solution. ACS Applied Nano Materials, 2018, 1, 5430-5440.	2.4	22
34	<i>In situ</i>study of nucleation and growth dynamics of Au nanoparticles on MoS₂nanoflakes. Nanoscale, 2018, 10, 15809-15818.	2.8	38
35	Tribo-electrochemical behavior of bio-functionalized TiO2 nanotubes in artificial saliva: Understanding of degradation mechanisms. Wear, 2017, 384-385, 28-42.	1.5	41
36	Hydroxyapatite Fibers: A Review of Synthesis Methods. Jom, 2017, 69, 1354-1360.	0.9	21

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37	A first insight on the bio-functionalization mechanisms of TiO2 nanotubes with calcium, phosphorous and zinc by reverse polarization anodization. Surface and Coatings Technology, 2017, 324, 153-166.	2.2	22
38	Bio-camouflage of anatase nanoparticles explored by in situ high-resolution electron microscopy. Nanoscale, 2017, 9, 10684-10693.	2.8	18
39	Synthesis of calcium-phosphorous doped TiO2 nanotubes by anodization and reverse polarization: A promising strategy for an efficient biofunctional implant surface. Applied Surface Science, 2017, 399, 682-701.	3.1	58
40	Understanding materials challenges for rechargeable ion batteries with in situ transmission electron microscopy. Nature Communications, 2017, 8, .	5.8	301
41	TiO₂nanotubes enriched with calcium, phosphorous and zinc: promising bio-selective functional surfaces for osseointegrated titanium implants. RSC Advances, 2017, 7, 49720-49738.	1.7	16
42	Revealing the Iron Oxides Mineral Core in Ferritin due to the Variations in the H and L Subunits. Microscopy and Microanalysis, 2017, 23, 1184-1185.	0.2	1
43	Monitoring the Exocytosis and Full Fusion of Insulin Granules in Pancreatic Islet Cells via Graphene Liquid Cell-Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 1310-1311.	0.2	3
44	Precise In Situ Modulation of Local Liquid Chemistry via Electron Irradiation in Nanoreactors Based on Graphene Liquid Cells. Advanced Materials, 2016, 28, 7716-7722.	11.1	44
45	Atomistic Insights into the Oriented Attachment of Tunnel-Based Oxide Nanostructures. ACS Nano, 2016, 10, 539-548.	7.3	66
46	Improved Environmental Control and Experimental Repeatability with New In-Situ Devices. Microscopy and Microanalysis, 2015, 21, 949-950.	0.2	0
47	Dynamic studies of solution-based reactions using operando TEM. Microscopy and Microanalysis, 2015, 21, 263-264.	0.2	0
48	The Role of Nicotine in the Corrosive Behavior of a <scp>Ti</scp>â€6<scp>Al</scp>â€4<scp>V</scp> Dental Implant. Clinical Implant Dentistry and Related Research, 2015, 17, e352-63.	1.6	6
49	Using Graphene Liquid Cells for High-resolution Chemical Analysis of Nano-particle Reactions. Microscopy and Microanalysis, 2015, 21, 1289-1290.	0.2	0
50	Cerium oxide nanoparticle aggregates affect stress response and function in<i>Caenorhabditis elegans</i>. SAGE Open Medicine, 2015, 3, 205031211557538.	0.7	17
51	Precision In Situ Control of Local Liquid Chemistry via Electron Irradiation. Microscopy and Microanalysis, 2015, 21, 265-266.	0.2	0
52	Cerium oxide nanoparticles attenuate acute kidney injury induced by intra-abdominal infection in Spragueâ€"Dawley rats. Journal of Nanobiotechnology, 2015, 13, 75.	4.2	46
53	Nanotopography and Surface Stress Analysis of Ti6Al4V Bioimplant: An Alternative Design for Stability. Jom, 2015, 67, 2518-2533.	0.9	11
54	Lipopolysaccharide induced MAP kinase activation in RAW 264.7 cells attenuated by cerium oxide nanoparticles. Data in Brief, 2015, 4, 96-99.	0.5	8

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55	Fabrication of drug eluting implants: study of drug release mechanism from titanium dioxide nanotubes. Journal Physics D: Applied Physics, 2015, 48, 275401.	1.3	47
56	Cerium oxide nanoparticles inhibit lipopolysaccharide induced MAP kinase/NF-kB mediated severe sepsis. Data in Brief, 2015, 4, 105-115.	0.5	18
57	Inhibition of MAP kinase/NF-kB mediated signaling and attenuation of lipopolysaccharide induced severe sepsis by cerium oxide nanoparticles. Biomaterials, 2015, 59, 160-171.	5.7	121
58	Cytotoxicity and genotoxicity caused by yttrium oxide nanoparticles in HEK293 cells. International Journal of Nanomedicine, 2014, 9, 1379.	3.3	70
59	Facile electrochemical synthesis of antimicrobial TiO2 nanotube arrays. International Journal of Nanomedicine, 2014, 9, 5177.	3.3	18
60	Biophysical evaluation of cells on nanotubular surfaces: the effects of atomic ordering and chemistry. International Journal of Nanomedicine, 2014, 9, 3737.	3.3	34
61	Cerium oxide nanoparticles attenuate monocrotaline induced right ventricular hypertrophy following pulmonary arterial hypertension. Biomaterials, 2014, 35, 9951-9962.	5.7	62
62	Highâ€Resolution Electron Microscopy and Spectroscopy of Ferritin in Biocompatible Graphene Liquid Cells and Graphene Sandwiches. Advanced Materials, 2014, 26, 3410-3414.	11.1	148
63	High Resolution In-situ Study of Reactions in Graphene Liquid Cells. Microscopy and Microanalysis, 2014, 20, 1520-1521.	0.2	5
64	Intercalation of anti-inflammatory drug molecules within TiO2 nanotubes. RSC Advances, 2013, 3, 17380.	1.7	57
65	Deformation-driven electrical transport in amorphous TiO2 nanotubes. Applied Physics A: Materials Science and Processing, 2012, 109, 127-132.	1.1	5
66	A study on the modulation of the electrical transport by mechanical straining of individual titanium dioxide nanotube. Applied Physics Letters, 2010, 97, .	1.5	13
67	Structural instabilities in TiO2 nanotubes. Journal of Applied Physics, 2010, 108, 104310.	1.1	6
68	Direct Compressive Measurements of Individual Titanium Dioxide Nanotubes. ACS Nano, 2009, 3, 3098-3102.	7.3	69