

Tolou Shokuhfar

List of Publications by Year in descending order

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Version: 2024-02-01

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	Carbothermal shock synthesis of high-entropy-alloy nanoparticles. <i>Science</i> , 2018, 359, 1489-1494.	6.0	1,065
2	Understanding materials challenges for rechargeable ion batteries with in situ transmission electron microscopy. <i>Nature Communications</i> , 2017, 8, .	5.8	301
3	High-Resolution Electron Microscopy and Spectroscopy of Ferritin in Biocompatible Graphene Liquid Cells and Graphene Sandwiches. <i>Advanced Materials</i> , 2014, 26, 3410-3414.	11.1	148
4	Non-Dendritic Zn Electrodeposition Enabled by Zincophilic Graphene Substrates. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 44077-44089.	4.0	129
5	Inhibition of MAP kinase/NF- κ B mediated signaling and attenuation of lipopolysaccharide induced severe sepsis by cerium oxide nanoparticles. <i>Biomaterials</i> , 2015, 59, 160-171.	5.7	121
6	2D boron nitride nanosheets for polymer composite materials. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	110
7	Scalable Synthesis of High Entropy Alloy Nanoparticles by Microwave Heating. <i>ACS Nano</i> , 2021, 15, 14928-14937.	7.3	85
8	Cytotoxicity and genotoxicity caused by yttrium oxide nanoparticles in HEK293 cells. <i>International Journal of Nanomedicine</i> , 2014, 9, 1379.	3.3	70
9	Direct Compressive Measurements of Individual Titanium Dioxide Nanotubes. <i>ACS Nano</i> , 2009, 3, 3098-3102.	7.3	69
10	Atomistic Insights into the Oriented Attachment of Tunnel-Based Oxide Nanostructures. <i>ACS Nano</i> , 2016, 10, 539-548.	7.3	66
11	Cerium oxide nanoparticles attenuate monocrotaline induced right ventricular hypertrophy following pulmonary arterial hypertension. <i>Biomaterials</i> , 2014, 35, 9951-9962.	5.7	62
12	Revealing nanoscale mineralization pathways of hydroxyapatite using in situ liquid cell transmission electron microscopy. <i>Science Advances</i> , 2020, 6, .	4.7	61
13	Anti-Oxygen Leaking LiCoO ₂ . <i>Advanced Functional Materials</i> , 2019, 29, 1901110.	7.8	60
14	Operando liquid cell electron microscopy of discharge and charge kinetics in lithium-oxygen batteries. <i>Nano Energy</i> , 2018, 49, 338-345.	8.2	59
15	Synthesis of calcium-phosphorous doped TiO ₂ nanotubes by anodization and reverse polarization: A promising strategy for an efficient biofunctional implant surface. <i>Applied Surface Science</i> , 2017, 399, 682-701.	3.1	58
16	Intercalation of anti-inflammatory drug molecules within TiO ₂ nanotubes. <i>RSC Advances</i> , 2013, 3, 17380.	1.7	57
17	Fabrication of drug eluting implants: study of drug release mechanism from titanium dioxide nanotubes. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 275401.	1.3	47
18	The role of electron irradiation history in liquid cell transmission electron microscopy. <i>Science Advances</i> , 2018, 4, eaaq1202.	4.7	47

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19	Novel PMMA bone cement nanocomposites containing magnesium phosphate nanosheets and hydroxyapatite nanofibers. <i>Materials Science and Engineering C</i> , 2020, 109, 110497.	3.8	47
20	Cerium oxide nanoparticles attenuate acute kidney injury induced by intra-abdominal infection in Sprague-Dawley rats. <i>Journal of Nanobiotechnology</i> , 2015, 13, 75.	4.2	46
21	Precise In Situ Modulation of Local Liquid Chemistry via Electron Irradiation in Nanoreactors Based on Graphene Liquid Cells. <i>Advanced Materials</i> , 2016, 28, 7716-7722.	11.1	44
22	Continuous 2000 K droplet-to-particle synthesis. <i>Materials Today</i> , 2020, 35, 106-114.	8.3	43
23	Tribo-electrochemical behavior of bio-functionalized TiO ₂ nanotubes in artificial saliva: Understanding of degradation mechanisms. <i>Wear</i> , 2017, 384-385, 28-42.	1.5	41
24	<i>In situ</i> study of nucleation and growth dynamics of Au nanoparticles on MoS ₂ nanoflakes. <i>Nanoscale</i> , 2018, 10, 15809-15818.	2.8	38
25	Advances in Graphene-Based Liquid Cell Electron Microscopy: Working Principles, Opportunities, and Challenges. <i>Small Methods</i> , 2019, 3, 1900026.	4.6	38
26	Biophysical evaluation of cells on nanotubular surfaces: the effects of atomic ordering and chemistry. <i>International Journal of Nanomedicine</i> , 2014, 9, 3737.	3.3	34
27	Investigation of the magnetosome biomineralization in magnetotactic bacteria using graphene liquid cell transmission electron microscopy. <i>Nanoscale</i> , 2019, 11, 698-705.	2.8	29
28	TEM Studies on Antibacterial Mechanisms of Black Phosphorous Nanosheets. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 3071-3085.	3.3	28
29	<i>In Situ</i> Study of Molecular Structure of Water and Ice Entrapped in Graphene Nanovessels. <i>ACS Nano</i> , 2019, 13, 4677-4685.	7.3	27
30	Polyethylene-BN nanosheets nanocomposites with enhanced thermal and mechanical properties. <i>Composites Science and Technology</i> , 2021, 204, 108631.	3.8	25
31	A Light-Curable and Tunable Extracellular Matrix Hydrogel for In Situ Suture-Free Corneal Repair. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	25
32	Imaging of soft materials using in situ liquid-cell transmission electron microscopy. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 103001.	0.7	23
33	A first insight on the bio-functionalization mechanisms of TiO ₂ nanotubes with calcium, phosphorous and zinc by reverse polarization anodization. <i>Surface and Coatings Technology</i> , 2017, 324, 153-166.	2.2	22
34	In Situ Transmission Electron Microscopy Explores a New Nanoscale Pathway for Direct Gypsum Formation in Aqueous Solution. <i>ACS Applied Nano Materials</i> , 2018, 1, 5430-5440.	2.4	22
35	Hydroxyapatite Fibers: A Review of Synthesis Methods. <i>Jom</i> , 2017, 69, 1354-1360.	0.9	21
36	In-situ porcine corneal matrix hydrogel as ocular surface bandage. <i>Ocular Surface</i> , 2021, 21, 27-36.	2.2	20

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37	In Situ Liquid-Cell TEM Observation of Multiphase Classical and Nonclassical Nucleation of Calcium Oxalate. <i>Advanced Functional Materials</i> , 2021, 31, 2007736.	7.8	19
38	Facile electrochemical synthesis of antimicrobial TiO ₂ nanotube arrays. <i>International Journal of Nanomedicine</i> , 2014, 9, 5177.	3.3	18
39	Cerium oxide nanoparticles inhibit lipopolysaccharide induced MAP kinase/NF- κ B mediated severe sepsis. <i>Data in Brief</i> , 2015, 4, 105-115.	0.5	18
40	Bio-camouflage of anatase nanoparticles explored by in situ high-resolution electron microscopy. <i>Nanoscale</i> , 2017, 9, 10684-10693.	2.8	18
41	On the structure and chemistry of iron oxide cores in human heart and human spleen ferritins using graphene liquid cell electron microscopy. <i>Nanoscale</i> , 2019, 11, 16868-16878.	2.8	18
42	Collagen biomineralization: pathways, mechanisms, and thermodynamics. <i>Emergent Materials</i> , 2021, 4, 1205-1224.	3.2	18
43	Cerium oxide nanoparticle aggregates affect stress response and function in <i>Caenorhabditis elegans</i> . <i>SAGE Open Medicine</i> , 2015, 3, 205031211557538.	0.7	17
44	TiO ₂ nanotubes enriched with calcium, phosphorous and zinc: promising bio-selective functional surfaces for osseointegrated titanium implants. <i>RSC Advances</i> , 2017, 7, 49720-49738.	1.7	16
45	Facile hydrothermal synthesis of antibacterial multi-layered hydroxyapatite nanostructures with superior flexibility. <i>CrystEngComm</i> , 2018, 20, 1304-1312.	1.3	15
46	Combination targeting of α -platelets + fibrinogen enhances clot anchorage efficiency of nanoparticles for vascular drug delivery. <i>Nanoscale</i> , 2020, 12, 21255-21270.	2.8	15
47	A study on the modulation of the electrical transport by mechanical straining of individual titanium dioxide nanotube. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	13
48	In situ graphene liquid cell-transmission electron microscopy study of insulin secretion in pancreatic islet cells. <i>International Journal of Nanomedicine</i> , 2019, Volume 14, 371-382.	3.3	13
49	<p>Correlative ex situ and Liquid-Cell TEM Observation of Bacterial Cell Membrane Damage Induced by Rough Surface Topology</p>. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 1929-1938.	3.3	13
50	Fabrication, Rheological, and Compositional Characterization of Thermo-responsive Hydrogel from Cornea. <i>Tissue Engineering - Part C: Methods</i> , 2021, 27, 307-321.	1.1	12
51	Nanotopography and Surface Stress Analysis of Ti6Al4V Bioimplant: An Alternative Design for Stability. <i>Jom</i> , 2015, 67, 2518-2533.	0.9	11
52	In Situ Visualization of Ferritin Biomineralization via Graphene Liquid Cell-Transmission Electron Microscopy. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 3208-3216.	2.6	11
53	Lipopolysaccharide induced MAP kinase activation in RAW 264.7 cells attenuated by cerium oxide nanoparticles. <i>Data in Brief</i> , 2015, 4, 96-99.	0.5	8
54	Assessment of Pressure and Density of Confined Water in Graphene Liquid Cells. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901727.	1.9	8

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55	<i>In situ</i> visualization of the superior nanomechanical flexibility of individual hydroxyapatite nanobelts. CrystEngComm, 2018, 20, 1031-1036.	1.3	7
56	Structural instabilities in TiO ₂ nanotubes. Journal of Applied Physics, 2010, 108, 104310.	1.1	6
57	The Role of Nicotine in the Corrosive Behavior of a Ti-6Al-4V Dental Implant. Clinical Implant Dentistry and Related Research, 2015, 17, e352-63.	1.6	6
58	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
59	Deformation-driven electrical transport in amorphous TiO ₂ nanotubes. Applied Physics A: Materials Science and Processing, 2012, 109, 127-132.	1.1	5
60	High Resolution In-situ Study of Reactions in Graphene Liquid Cells. Microscopy and Microanalysis, 2014, 20, 1520-1521.	0.2	5
61	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
62	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
63	Improved Environmental Control and Experimental Repeatability with New In-Situ Devices. Microscopy and Microanalysis, 2015, 21, 949-950.	0.2	0
64	Dynamic studies of solution-based reactions using operando TEM. Microscopy and Microanalysis, 2015, 21, 263-264.	0.2	0
65	Using Graphene Liquid Cells for High-resolution Chemical Analysis of Nano-particle Reactions. Microscopy and Microanalysis, 2015, 21, 1289-1290.	0.2	0
66	Precision In Situ Control of Local Liquid Chemistry via Electron Irradiation. Microscopy and Microanalysis, 2015, 21, 265-266.	0.2	0
67	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
68	In situ visualization of superior nanomechanical flexibility of individual hydroxyapatite nanobelts. Microscopy and Microanalysis, 2021, 27, 1780-1781.	0.2	0