Utkur M Mirsaidov

List of Publications by Year
in descending order

102	4,068	81743	123241
papers	citations	39 h-index	61 g-index

104	104	104	5433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Preventing the Capillary-Induced Collapse of Vertical Nanostructures. ACS Applied Materials & Interfaces, 2022, 14, 5537-5544.	4.0	7
2	Constructing ambivalent imidazopyridinium-linked covalent organic frameworks. , 2022, 1, 382-392.		38
3	Revealing the Origin of Lowâ€Temperature Activity of Niâ€“Rh Nanostructures during CO Oxidation Reaction with Operando TEM. Advanced Science, 2022, 9, e2105599.	5.6	6
4	Two-dimensional adaptive membranes with programmable water and ionic channels. Nature Nanotechnology, 2021, 16, 174-180.	15.6	86
5	Visualizing the Conversion of Metalâ€“Organic Framework Nanoparticles into Hollow Layered Double Hydroxide Nanocages. Journal of the American Chemical Society, 2021, 143, 1854-1862.	6.6	111
6	Evolution of Anisotropic Arrow Nanostructures during Controlled Overgrowth. Advanced Functional Materials, 2021, 31, 2008639.	7.8	5
7	Formation Pathways of Porous Alloy Nanoparticles through Selective Chemical and Electrochemical Etching. Small, 2021, 17, e2006953.	5.2	14
8	Deep Learning-Based High Throughput Inspection in 3D Nanofabrication and Defect Reversal in Nanopillar Arrays: Implications for Next Generation Transistors. ACS Applied Nano Materials, 2021, 4, 2664-2672.	2.4	6
9	Three-step nucleation of metalâ€“organic framework nanocrystals. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	58
10	Allâ€Dielectric Nanostructures with a Thermoresponsible Dynamic Polymer Shell. Angewandte Chemie, 2021, 133, 12847-12851.	1.6	1
11	Allâ€Dielectric Nanostructures with a Thermoresponsible Dynamic Polymer Shell. Angewandte Chemie - International Edition, 2021, 60, 12737-12741.	7.2	10
12	Growth Dynamics of Vertical and Lateral Layered Double Hydroxide Nanosheets during Electrodeposition. Nano Letters, 2021, 21, 5977-5983.	4.5	18
13	Dynamics of thin precursor film in wetting of nanopatterned surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	6
14	Visualizing the Growth of LDH Nanomaterial through Electrodeposition and Chemical Conversion. Microscopy and Microanalysis, 2021, 27, 23-24.	0.2	0
15	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. Energy and Environmental Science, 2020, 13, 229-237.	15.6	78
16	Real-Time Electron Nanoscopy of Photovoltaic Absorber Formation from Kesterite Nanoparticles. ACS Applied Energy Materials, 2020, 3, 122-128.	2.5	5
17	Partitioning the interlayer space of covalent organic frameworks by embedding pseudorotaxanes in their backbones. Nature Chemistry, 2020, 12, 1115-1122.	6.6	88
18	Liquid phase transmission electron microscopy for imaging of nanoscale processes in solution. MRS Bulletin, 2020, 45, 704-712.	1.7	26

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19	Visualizing Chemical Processes in Semiconductors with In Situ TEM. Microscopy and Microanalysis, 2020, 26, 2038-2038.	0.2	0
20	Nanoscale Elastocapillary Effect Induced by Thin-Liquid-Film Instability. Journal of Physical Chemistry Letters, 2020, 11, 2751-2758.	2.1	13
21	Phase Selection in Self-catalyzed GaAs Nanowires. Nano Letters, 2020, 20, 1669-1675.	4.5	83
22	Rapid, Scalable Construction of Highly Crystalline Acylhydrazone Two-Dimensional Covalent Organic Frameworks via Dipole-Induced Antiparallel Stacking. Journal of the American Chemical Society, 2020, 142, 4932-4943.	6.6	99
23	Binary Chiral Nanoparticles Exhibit Amplified Optical Activity and Enhanced Refractive Index Sensitivity. Small, 2020, 16, e1906048.	5.2	14
24	Structural changes in noble metal nanoparticles during CO oxidation and their impact on catalyst activity. Nature Communications, 2020, 11, 2133.	5.8	63
25	Realâ€Time Imaging of Nanoscale Redox Reactions over Bimetallic Nanoparticles. Advanced Functional Materials, 2019, 29, 1903242.	7.8	36
26	Interface-mediated Kirkendall effect and nanoscale void migration in bimetallic nanoparticles during interdiffusion. Nature Communications, 2019, 10, 2831.	5.8	42
27	Operando Transmission Electron Microscopy of Noble Metal Nano-catalysts During CO Oxidation. Microscopy and Microanalysis, 2019, 25, 2020-2021.	0.2	0
28	Growth Dynamics of Gallium Nanodroplets Driven by Thermally Activated Surface Diffusion. Journal of Physical Chemistry Letters, 2019, 10, 5082-5089.	2.1	3
29	Intermediate Structures of Ptâ€“Ni Nanoparticles during Selective Chemical and Electrochemical Etching. Journal of Physical Chemistry Letters, 2019, 10, 6090-6096.	2.1	25
30	Chirality Transfer in Galvanic Replacement Reactions. Nano Letters, 2019, 19, 7427-7433.	4.5	25
31	Selective Wet Etching of Silicon Germanium in Composite Vertical Nanowires. ACS Applied Materials & Interfaces, 2019, 11, 36839-36846.	4.0	24
32	Dynamics of amphiphilic block copolymers in an aqueous solution: direct imaging of micelle formation and nanoparticle encapsulation. Nanoscale, 2019, 11, 2299-2305.	2.8	40
33	Titelbild: Disorder Engineering in Monolayer Nanosheets Enabling Photothermic Catalysis for Full Solar Spectrum (250â€“2500â€…nm) Harvesting (Angew. Chem. 10/2019). Angewandte Chemie, 2019, 131, 2933-2933.	1.6	0
34	Direct Observations of the Rotation and Translation of Anisotropic Nanoparticles Adsorbed at a Liquidâ€“Solid Interface. Nano Letters, 2019, 19, 2871-2878.	4.5	40
35	Disorder Engineering in Monolayer Nanosheets Enabling Photothermic Catalysis for Full Solar Spectrum (250â€“2500â€…nm) Harvesting. Angewandte Chemie, 2019, 131, 3109-3113.	1.6	9
36	Disorder Engineering in Monolayer Nanosheets Enabling Photothermic Catalysis for Full Solar Spectrum (250â€“2500â€…nm) Harvesting. Angewandte Chemie - International Edition, 2019, 58, 3077-3081.	7.2	100

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37	Nanoparticle Interactions Guided by Shapeâ€Dependent Hydrophobic Forces. Advanced Materials, 2018, 30, e1707077.	11.1	42
38	Nanocrystal Dynamics: Spontaneous Reshaping and Splitting of AgCl Nanocrystals under Electron Beam Illumination (Small 48/2018). Small, 2018, 14, 1870231.	5.2	0
39	Spontaneous Reshaping and Splitting of AgCl Nanocrystals under Electron Beam Illumination. Small, 2018, 14, e1803231.	5.2	10
40	Growth Dynamics of Ga Nanodroplets on 2D Substrate. Microscopy and Microanalysis, 2018, 24, 264-265.	0.2	0
41	Direct Visualization of Solution-based Nanofabrication Processes with In Situ TEM: Chemical Wet-etching and Solution-based Cleaning/Drying of High-Aspect-Ratio Nanostructures. Microscopy and Microanalysis, 2018, 24, 276-277.	0.2	0
42	In Situ Kinetic and Thermodynamic Growth Control of Auâ€“Pd Coreâ€“Shell Nanoparticles. Journal of the American Chemical Society, 2018, 140, 11680-11685.	6.6	66
43	Interactions and Attachment Pathways between Functionalized Gold Nanorods. ACS Nano, 2017, 11, 1633-1640.	7.3	60
44	Transient Clustering of Reaction Intermediates during Wet Etching of Silicon Nanostructures. Nano Letters, 2017, 17, 2953-2958.	4.5	35
45	Direct Observation of Interactions between Nanoparticles and Nanoparticle Self-Assembly in Solution. Accounts of Chemical Research, 2017, 50, 1303-1312.	7.6	97
46	Dynamics of Templated Assembly of Nanoparticle Filaments within Nanochannels. Advanced Materials, 2017, 29, 1702682.	11.1	24
47	Direct observation of the nanoscale Kirkendall effect during galvanic replacement reactions. Nature Communications, 2017, 8, 1224.	5.8	175
48	Multistep nucleation of nanocrystals in aqueous solution. Nature Chemistry, 2017, 9, 77-82.	6.6	312
49	Capturing Dynamics in Liquids with High-Speed CMOS Cameras - Opportunities and Challenges. Microscopy and Microanalysis, 2017, 23, 860-861.	0.2	1
50	Aggregation dynamics of nanoparticles at solidâ€“liquid interfaces. Nanoscale, 2017, 9, 10044-10050.	2.8	24
51	Hydration Layer-mediated Pairwise Interaction of Nanoparticles resolved by in situ TEM. Microscopy and Microanalysis, 2016, 22, 756-757.	0.2	0
52	Real time observation of gold nanoparticle aggregation dynamics on a 2D membrane. Microscopy and Microanalysis, 2016, 22, 808-809.	0.2	3
53	Real-Time Dynamics of Galvanic Replacement Reactions of Silver Nanocubes and Au Studied by Liquid-Cell Transmission Electron Microscopy. ACS Nano, 2016, 10, 7689-7695.	7.3	67
54	Visualizing Nanoscale Assembly in Solution Using In Situ TEM. Microscopy and Microanalysis, 2016, 22, 34-35.	0.2	0

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55	Hopping Diffusion of Gold Nanoparticles Observed with Liquid Cell TEM. Microscopy and Microanalysis, 2016, 22, 750-751.	0.2	3
56	Real-Time Imaging of the Formation of Auâ€“Ag Coreâ€“Shell Nanoparticles. Journal of the American Chemical Society, 2016, 138, 5190-5193.	6.6	55
57	Desorption-Mediated Motion of Nanoparticles at the Liquidâ€–Solid Interface. Journal of Physical Chemistry C, 2016, 120, 20462-20470.	1.5	75
58	Linker-Mediated Self-Assembly Dynamics of Charged Nanoparticles. ACS Nano, 2016, 10, 7443-7450.	7.3	59
59	Hydration Layer-Mediated Pairwise Interaction of Nanoparticles. Nano Letters, 2016, 16, 786-790.	4.5	103
60	CTAB-Influenced Electrochemical Dissolution of Silver Dendrites. Langmuir, 2016, 32, 3601-3607.	1.6	22
61	Nanodroplet-Mediated Assembly of Platinum Nanoparticle Rings in Solution. Nano Letters, 2016, 16, 1092-1096.	4.5	38
62	Bonding Pathways of Gold Nanocrystals in Solution. Microscopy and Microanalysis, 2015, 21, 269-270.	0.2	0
63	Effect of Electron Beam on Nanoparticle Dynamics in Solution during in situ TEM Observation. Microscopy and Microanalysis, 2015, 21, 257-258.	0.2	2
64	The Two Dimensional Nanoplate Dynamics Revealed by in situ Liquid Cell TEM. Microscopy and Microanalysis, 2015, 21, 261-262.	0.2	0
65	Probing Nanoparticle Dynamics in 200 nm Thick Liquid Layers at Millisecond Time Resolution. Microscopy and Microanalysis, 2015, 21, 267-268.	0.2	3
66	Role of Fluid-Mediated Interactions in Guiding Nanoparticle Assembly. Microscopy and Microanalysis, 2015, 21, 259-260.	0.2	0
67	Ecology of a Simple Synthetic Biofilm. Biological and Medical Physics Series, 2015, , 205-226.	0.3	1
68	B12-O-13In-situTEM observation of biological specimen in liquid cells. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.7	0
69	Nanodroplet Depinning from Nanoparticles. ACS Nano, 2015, 9, 9020-9026.	7.3	20
70	Numerical study of homogeneous nanodroplet growth. Journal of Colloid and Interface Science, 2015, 438, 47-54.	5.0	0
71	Bonding Pathways of Gold Nanocrystals in Solution. Nano Letters, 2014, 14, 6639-6643.	4.5	87
72	Nucleation Dynamics of Water Nanodroplets. Microscopy and Microanalysis, 2014, 20, 407-415.	0.2	19

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73	Dynamics of a nanodroplet under a transmission electron microscope. Physics of Fluids, 2014, 26, 012003.	1.6	14
74	Nanoparticle Dynamics in a Nanodroplet. Nano Letters, 2014, 14, 2111-2115.	4.5	73
75	Nanoscale Dynamics in Ultrathin Liquids Visualized with TEM. Microscopy and Microanalysis, 2014, 20, 1502-1503.	0.2	1
76	Scrolling graphene into nanofluidic channels. Lab on A Chip, 2013, 13, 2874.	3.1	60
77	Dynamics of hydrogen nanobubbles in KLH protein solution studied with in situ wet-TEM. Soft Matter, 2013, 9, 8856.	1.2	57
78	Direct observation of stick-slip movements of water nanodroplets induced by an electron beam. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7187-7190.	3.3	97
79	Electron Beam Manipulation of Nanoparticles. Nano Letters, 2012, 12, 5644-5648.	4.5	80
80	Self-aligned wet-cell for hydrated microbiology observation in TEM. Lab on A Chip, 2012, 12, 340-347.	3.1	42
81	A direct observation of nanometer-size void dynamics in an ultra-thin water film. Soft Matter, 2012, 8, 7108.	1.2	32
82	Response to â€œElectron Microscopy of Biological Specimens in Liquid Waterâ€• Biophysical Journal, 2012, 103, 165-166.	0.2	1
83	Imaging Protein Structure in Water at 2.7Ânm Resolution by Transmission Electron Microscopy. Biophysical Journal, 2012, 102, L15-L17.	0.2	105
84	Analytical method for parameterizing the random profile components of nanosurfaces imaged by atomic force microscopy. Analyst, The, 2011, 136, 570-576.	1.7	10
85	Third Generation DNA Sequencing with a Nanopore. , 2011, , 287-311.		0
86	Nanopores in solid-state membranes engineered for single molecule detection. Nanotechnology, 2010, 21, 065502.	1.3	77
87	Molecular diagnostics for personal medicine using a nanopore. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2010, 2, 367-381.	3.3	18
88	Nanopore Sequencing: Electrical Measurements of the Code of Life. IEEE Nanotechnology Magazine, 2010, 9, 281-294.	1.1	81
89	Slowing the translocation of double-stranded DNA using a nanopore smaller than the double helix. Nanotechnology, 2010, 21, 395501.	1.3	74
90	Analyzing the forces binding a restriction endonuclease to DNA using a synthetic nanopore. Nucleic Acids Research, 2009, 37, 4170-4179.	6.5	39

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91	Nanoelectromechanics of Methylated DNA in a Synthetic Nanopore. Biophysical Journal, 2009, 96, L32-L34.	0.2	54
92	Jamming prokaryotic cell-to-cell communications in a model biofilm. Lab on A Chip, 2009, 9, 925-934.	3.1	31
93	Optimal optical trap for bacterial viability. Physical Review E, 2008, 78, 021910.	0.8	73
94	Live cell lithography: Using optical tweezers to create synthetic tissue. Lab on A Chip, 2008, 8, 2174.	3.1	89
95	Detecting SNPs Using a Synthetic Nanopore. Nano Letters, 2007, 7, 1680-1685.	4.5	133
96	Laser-Guided Assembly of Heterotypic Three-Dimensional Living Cell Microarrays. Biophysical Journal, 2006, 91, 3465-3473.	0.2	99
97	Calix[4]pyrrole Schiff Base Macrocycles:Â Novel Binucleating Ligands for Cu(I) and Cu(II). Inorganic Chemistry, 2005, 44, 6736-6743.	1.9	52
98	Quantum Growth of Magnetic Nanoplatelets of Co on Si with High Blocking Temperature. Nano Letters, 2005, 5, 87-90.	4.5	43
99	A Schiff Base Expanded Porphyrin Macrocycle that Acts as a Versatile Binucleating Ligand for Late First-Row Transition Metals. Inorganic Chemistry, 2005, 44, 2125-2127.	1.9	40
100	Oscillator microfabrication, micromagnets, and magnetic resonance force microscopy. , 2004, , .		6
101	External field effects on the resonant frequency of magnetically capped oscillators for magnetic resonance force microscopy. Journal of Applied Physics, 2003, 93, 6572-6574.	1.1	5
102	Nanoscale Water Imaged by In Situ TEM. , 0, , 276-290.		0