

# Qian Yu

## List of Publications by Year in descending order

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48  
papers

5,534  
citations

186265

28  
h-index

214800

47  
g-index

52  
all docs

52  
docs citations

52  
times ranked

5349  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tuning element distribution, structure and properties by composition in high-entropy alloys. <i>Nature</i> , 2019, 574, 223-227.	27.8	874
2	Dislocation network in additive manufactured steel breaks strength-ductility trade-off. <i>Materials Today</i> , 2018, 21, 354-361.	14.2	640
3	Nanoscale origins of the damage tolerance of the high-entropy alloy CrMnFeCoNi. <i>Nature Communications</i> , 2015, 6, 10143.	12.8	608
4	Strong crystal size effect on deformation twinning. <i>Nature</i> , 2010, 463, 335-338.	27.8	553
5	Dislocation mechanisms and 3D twin architectures generate exceptional strength-ductility-toughness combination in CrCoNi medium-entropy alloy. <i>Nature Communications</i> , 2017, 8, 14390.	12.8	344
6	Oxygen Vacancy Engineering Promoted Photocatalytic Ammonia Synthesis on Ultrathin Two-Dimensional Bismuth Oxybromide Nanosheets. <i>Nano Letters</i> , 2018, 18, 7372-7377.	9.1	308
7	Origin of dramatic oxygen solute strengthening effect in titanium. <i>Science</i> , 2015, 347, 635-639.	12.6	255
8	The Nanostructured Origin of Deformation Twinning. <i>Nano Letters</i> , 2012, 12, 887-892.	9.1	218
9	Real-time nanoscale observation of deformation mechanisms in CrCoNi-based medium- to high-entropy alloys at cryogenic temperatures. <i>Materials Today</i> , 2019, 25, 21-27.	14.2	167
10	Real-time observations of TRIP-induced ultrahigh strain hardening in a dual-phase CrMnFeCoNi high-entropy alloy. <i>Nature Communications</i> , 2020, 11, 826.	12.8	165
11	Re segregation at interfacial dislocation network in a nickel-based superalloy. <i>Acta Materialia</i> , 2018, 154, 137-146.	7.9	119
12	Reducing deformation anisotropy to achieve ultrahigh strength and ductility in Mg at the nanoscale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13289-13293.	7.1	111
13	Rational Design of Graphene-Reinforced MnO Nanowires with Enhanced Electrochemical Performance for Li-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 6303-6308.	8.0	94
14	The role of low angle grain boundary in deformation of titanium and its size effect. <i>Scripta Materialia</i> , 2019, 163, 148-151.	5.2	89
15	Enhanced strengthening and hardening via self-stabilized dislocation network in additively manufactured metals. <i>Materials Today</i> , 2021, 50, 79-88.	14.2	82
16	In situ TEM observation of FCC Ti formation at elevated temperatures. <i>Scripta Materialia</i> , 2017, 140, 9-12.	5.2	77
17	Interface-Induced Pseudocapacitance in Nonporous Heterogeneous Particles for High Volumetric Sodium Storage. <i>Advanced Functional Materials</i> , 2020, 30, 2002019.	14.9	74
18	Atomic-resolution imaging of electrically induced oxygen vacancy migration and phase transformation in SrCoO <sub>2.5</sub> . <i>Nature Communications</i> , 2017, 8, 104.	12.8	66

#	ARTICLE	IF	CITATIONS
19	Three-dimensional atomic-scale observation of structural evolution of cathode material in a working all-solid-state battery. <i>Nature Communications</i> , 2018, 9, 3341.	12.8	60
20	The Effect of Size on the Deformation Twinning Behavior in Hexagonal Close-Packed Ti and Mg. <i>Jom</i> , 2012, 64, 1235-1240.	1.9	49
21	Topologically protected oxygen redox in a layered manganese oxide cathode for sustainable batteries. <i>Nature Sustainability</i> , 2022, 5, 214-224.	23.7	44
22	Dislocation plasticity reigns in a traditional twinning-induced plasticity steel by in situ observation. <i>Materials Today Nano</i> , 2018, 3, 48-53.	4.6	43
23	The Exceptional Strong Face-centered Cubic Phase and Semi-coherent Phase Boundary in a Eutectic Dual-phase High Entropy Alloy AlCoCrFeNi. <i>Scientific Reports</i> , 2018, 8, 14910.	3.3	39
24	Origin of strong solid solution strengthening in the CrCoNi-W medium entropy alloy. <i>Journal of Materials Science and Technology</i> , 2021, 73, 101-107.	10.7	39
25	Atomic-scale observation of non-classical nucleation-mediated phase transformation in a titanium alloy. <i>Nature Materials</i> , 2022, 21, 290-296.	27.5	38
26	Scalable Production of the Silicon-Tin Yin-Yang Hybrid Structure with Graphene Coating for High Performance Lithium-Ion Battery Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15388-15393.	8.0	36
27	Investigation of Interfacial Layer for Ultrasonic Spot Welded Aluminum to Copper Joints. <i>Scientific Reports</i> , 2017, 7, 12505.	3.3	33
28	High-strength titanium alloy nanopillars with stacking faults and enhanced plastic flow. <i>Applied Physics Letters</i> , 2012, 100, 063109.	3.3	29
29	Temperature Effect on Stacking Fault Energy and Deformation Mechanisms in Titanium and Titanium-aluminium Alloy. <i>Scientific Reports</i> , 2020, 10, 3086.	3.3	29
30	Structures and Functional Properties of Amorphous Alloys. <i>Small Structures</i> , 2021, 2, 2000057.	12.0	28
31	In Situ Observation on Dislocation-Controlled Sublimation of Mg Nanoparticles. <i>Nano Letters</i> , 2016, 16, 1156-1160.	9.1	26
32	Anomalous size effect on yield strength enabled by compositional heterogeneity in high-entropy alloy nanoparticles. <i>Nature Communications</i> , 2022, 13, 2789.	12.8	26
33	Formation mechanism for the nanoscale amorphous interface in pulse-welded Al/Fe bimetallic systems. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	24
34	The effect of size on dislocation cell formation and strain hardening in aluminium. <i>Philosophical Magazine</i> , 2014, 94, 2062-2071.	1.6	23
35	Nanoburl Graphites. <i>Advanced Materials</i> , 2021, 33, e2007513.	21.0	19
36	In situ observation of temperature-dependent atomistic and mesoscale oxidation mechanisms of aluminum nanoparticles. <i>Nano Research</i> , 2020, 13, 183-187.	10.4	17

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37	Improving deformability of Sb <sub>2</sub> Te <sub>3</sub> layered material by dislocation climb at anti-phase boundary. Scripta Materialia, 2017, 135, 10-14.	5.2	16
38	In situ observation of sublimation-enhanced magnesium oxidation at elevated temperature. Nano Research, 2016, 9, 2796-2802.	10.4	14
39	Plasmonic-enhanced targeted nanohealing of metallic nanostructures. Applied Physics Letters, 2018, 112, .	3.3	14
40	Characterization of chemical local ordering and heterogeneity in high-entropy alloys. MRS Bulletin, 2022, 47, 186-193.	3.5	9
41	Super plasticity in a cold-welded Al-Cu joint. Applied Physics Letters, 2019, 114, 063101.	3.3	8
42	An <i>in situ</i> ambient and cryogenic transmission electron microscopy study of the effects of temperature on dislocation behavior in CrCoNi-based high-entropy alloys with low stacking-fault energy. Applied Physics Letters, 2021, 119, .	3.3	8
43	Tuning the near room temperature oxidation behavior of high-entropy alloy nanoparticles. Nano Research, 2022, 15, 3569-3574.	10.4	6
44	Dislocation Multiplications in Extremely Small Hexagonal-structured Titanium Nanopillars Without Dislocation Starvation. Scientific Reports, 2017, 7, 15890.	3.3	5
45	SIZE EFFECT ON DEFORMATION MODE IN MICRON-SIZED Ti-5Al SINGLE CRYSTAL LOADED ALONG $[2, \overline{1}, 0]$ AND $[0001]$ . International Journal of Modern Physics B, 2010, 24, 2466-2471.	2.0	3
46	High strength and deformation stability achieved in CrCoNi alloy containing deformable oxides. Journal of Materials Science and Technology, 2023, 134, 89-94.	10.7	3
47	Brittle-to-ductile transition in Ti-Pt intermetallic compounds. Science Bulletin, 2021, 66, 2281-2287.	9.0	1
48	A new transition metal trichalcogenide TaNbSe <sub>6</sub> with high yield strength. Materials Characterization, 2021, 175, 111051.	4.4	0