

# Yong-chang Liu

## List of Publications by Year in descending order

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68  
papers

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236925

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276875

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docs citations

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times ranked

1038  
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase Transformation Behavior and Microstructural Control of High-Cr Martensitic/Ferritic Heat-resistant Steels for Power and Nuclear Plants: A Review. <i>Journal of Materials Science and Technology</i> , 2015, 31, 235-242.	10.7	134
2	Promoted self-construction of $\text{NiOOH}$ in amorphous high entropy electrocatalysts for the oxygen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2022, 301, 120764.	20.2	103
3	Achieving high strength and ductility in ODS-W alloy by employing oxide@W core-shell nanopowder as precursor. <i>Nature Communications</i> , 2021, 12, 5052.	12.8	87
4	Coarsening behavior of $\text{Ni}_3\text{Al}$ precipitates in the $\text{Ni}_3\text{Al}$ area of a Ni3Al-based alloy. <i>Journal of Alloys and Compounds</i> , 2019, 771, 526-533.	5.5	86
5	Synthesis of W-Y2O3 alloys by freeze-drying and subsequent low temperature sintering: Microstructure refinement and second phase particles regulation. <i>Journal of Materials Science and Technology</i> , 2020, 36, 84-90.	10.7	85
6	Preparation of ultra-fine grain W-Y2O3 alloy by an improved wet chemical method and two-step spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2017, 695, 2969-2973.	5.5	82
7	Metal-organic framework derived copper catalysts for $\text{CO}_2$ to ethylene conversion. <i>Journal of Materials Chemistry A</i> , 2020, 8, 11117-11123.	10.3	82
8	Effect of annealing treatment on microstructure evolution and creep behavior of a multiphase Ni3Al-based superalloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 743, 623-635.	5.6	68
9	Microstructure characteristic and mechanical property of transformable 9Cr-ODS steel fabricated by spark plasma sintering. <i>Materials and Design</i> , 2017, 132, 158-169.	7.0	59
10	Synthesis of nanosized composite powders via a wet chemical process for sintering high performance W-Y2O3 alloy. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 69, 266-272.	3.8	58
11	Controlled synthesis of high-quality W-Y2O3 composite powder precursor by ascertaining the synthesis mechanism behind the wet chemical method. <i>Journal of Materials Science and Technology</i> , 2020, 36, 118-127.	10.7	58
12	The formation and evolution mechanism of amorphous layer surrounding Nb nano-grains in Nb-Al system during mechanical alloying process. <i>Journal of Alloys and Compounds</i> , 2019, 779, 175-182.	5.5	54
13	Effect of microstructure variation on the corrosion behavior of high-strength low-alloy steel in 3.5wt% NaCl solution. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2015, 22, 604-612.	4.9	43
14	W-Y2O3 composite nanopowders prepared by freeze-drying method and its sintering characteristics. <i>Journal of Alloys and Compounds</i> , 2019, 806, 127-135.	5.5	40
15	Metal-organic framework derived dual-metal sites for electroreduction of carbon dioxide to HCOOH. <i>Applied Catalysis B: Environmental</i> , 2022, 311, 121377.	20.2	40
16	The effect of Y2O3 on the grain growth and densification of W matrix during low temperature sintering: Experiments and modelling. <i>Materials and Design</i> , 2019, 181, 108080.	7.0	37
17	Self-Constructed Multiple Plasmonic Hotspots on an Individual Fractal to Amplify Broadband Hot Electron Generation. <i>ACS Nano</i> , 2021, 15, 10553-10564.	14.6	37
18	The simultaneous improvements of strength and ductility in W-Y2O3 alloy obtained via an alkaline hydrothermal method and subsequent low temperature sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 784, 139329.	5.6	36

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19	Synergistic phosphorized NiFeCo and MXene interaction inspired the formation of high-valence metal sites for efficient oxygen evolution. <i>Journal of Materials Science and Technology</i> , 2022, 106, 90-97.	10.7	35
20	Microstructure Refinement in W-Y <sub>2</sub> O <sub>3</sub> Alloy Fabricated by Wet Chemical Method with Surfactant Addition and Subsequent Spark Plasma Sintering. <i>Scientific Reports</i> , 2017, 7, 6051.	3.3	32
21	The synthesis of composite powder precursors via chemical processes for the sintering of oxide dispersion-strengthened alloys. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1952-1972.	5.9	32
22	Eliminating bimodal structures of W-Y <sub>2</sub> O <sub>3</sub> composite nanopowders synthesized by wet chemical method via controlling reaction conditions. <i>Journal of Alloys and Compounds</i> , 2019, 774, 122-128.	5.5	30
23	W-Y <sub>2</sub> O <sub>3</sub> composite nanopowders prepared by hydrothermal synthesis method: Co-deposition mechanism and low temperature sintering characteristics. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153461.	5.5	30
24	Accelerated sintering of high-performance oxide dispersion strengthened alloy at low temperature. <i>Acta Materialia</i> , 2021, 220, 117309.	7.9	30
25	Morphology and structure evolution of Y <sub>2</sub> O <sub>3</sub> nanoparticles in ODS steel powders during mechanical alloying and annealing. <i>Advanced Powder Technology</i> , 2015, 26, 1578-1582.	4.1	29
26	Precipitation behavior and martensite lath coarsening during tempering of T/P92 ferritic heat-resistant steel. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2014, 21, 438-447.	4.9	23
27	Microstructural Characterization and Phase Separation Sequences During Solidification of Ni <sub>3</sub> Al-Based Superalloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2017, 30, 949-956.	2.9	23
28	Ultra-fine W-Y <sub>2</sub> O <sub>3</sub> composite powders prepared by an improved chemical co-precipitation method and its interface structure after spark plasma sintering. <i>Tungsten</i> , 2019, 1, 220-228.	4.8	23
29	Effect of cold rolling and first precipitates on the coarsening behavior of $\gamma'$ -phases in Inconel 718 alloy. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 1087-1096.	4.9	22
30	Precipitation and coarsening behavior of $\gamma'$ phase in CoNi-base superalloy under different aging treatments. <i>Vacuum</i> , 2020, 175, 109247.	3.5	22
31	Strain-modulated Ni <sub>3</sub> Al alloy promotes oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2020, 844, 156094.	5.5	21
32	Effect of Ti addition on high-temperature oxidation behavior of Co-Ni-based superalloy. <i>Journal of Iron and Steel Research International</i> , 2020, 27, 1179-1189.	2.8	21
33	Evolution of Al-containing phases in ODS steel by hot pressing and annealing. <i>Powder Technology</i> , 2017, 311, 449-455.	4.2	19
34	Effects of tantalum on austenitic transformation kinetics of RAFM steel. <i>Journal of Iron and Steel Research International</i> , 2017, 24, 705-710.	2.8	19
35	Recent progress in friction stir welding tools used for steels. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 477-486.	2.8	19
36	Microstructure refinement in W-Y <sub>2</sub> O <sub>3</sub> alloys via an improved hydrothermal synthesis method and low temperature sintering. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 659-666.	6.0	19

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37	Effects of heat treatment on the microstructure and mechanical properties of Ni3Al-based superalloys: A review. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2021, 28, 553-566.	4.9	19
38	Precipitation and growth behavior of mushroom-like Ni3Al. <i>Materials Letters</i> , 2018, 211, 5-8.	2.6	18
39	Evaluation on elevated-temperature stability of modified 718-type alloys with varied phase configurations. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2020, 27, 1123-1132.	4.9	18
40	Coarsening behavior of MX carbonitrides in type 347H heat-resistant austenitic steel during thermal aging. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 283-293.	4.9	16
41	Enhanced mechanical properties in oxide-dispersion-strengthened alloys achieved via interface segregation of cation dopants. <i>Science China Materials</i> , 2021, 64, 987-998.	6.3	16
42	Formation mechanisms of Y-Al-O complex oxides in 9Cr-ODS steels with Al addition. <i>Journal of Materials Science</i> , 2019, 54, 7893-7907.	3.7	15
43	Effect of acicular ferrite on banded structures in low-carbon microalloyed steel. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2014, 21, 1167-1174.	4.9	14
44	Structural refinement of 00Cr13Ni5Mo2 supermartensitic stainless steel during single-stage intercritical tempering. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2014, 21, 279-288.	4.9	13
45	Effect of indium addition on the microstructural formation and soldered interfaces of Sn-2.5Bi-1Zn-0.3Ag lead-free solder. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2012, 19, 1029-1035.	4.9	12
46	Influence of Yttrium Addition on the Reduction Property of Tungsten Oxide Prepared via Wet Chemical Method. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 275-280.	2.9	12
47	Nano Mo-La-O particles strengthened Mo alloys fabricated via freeze-drying technology and low temperature sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 818, 141448.	5.6	12
48	Morphology and quantitative analysis of O phase during heat treatment of hot-deformed Ti2AlNb-based alloy. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2018, 25, 1191-1200.	4.9	11
49	Effects of Isothermal Aging on Microstructure and Mechanical Property of Low-Carbon RAFM Steel. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 1151-1160.	2.9	11
50	Investigation on $\gamma'$ stability in CoNi-based superalloys during long-term aging at 900°C. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155891.	5.5	11
51	Tailoring the tempered microstructure of a novel martensitic heat resistant steel G115 through prior cold deformation and its effect on mechanical properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 841, 143015.	5.6	11
52	Hot deformation behaviors of a 9Cr oxide dispersion-strengthened steel and its microstructure characterization. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2019, 26, 597-610.	4.9	10
53	Evaluation of precipitation hardening in TiC-reinforced Ti2AlNb-based alloys. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2018, 25, 453-458.	4.9	9
54	Microstructural Feature and Evolution of Rapidly Solidified Ni3Al-Based Superalloys. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 764-770.	2.9	9

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55	Effects of aluminum and titanium on the microstructure of ODS steels fabricated by hot pressing. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 1156-1165.	4.9	8
56	Microstructural evolution and constitutive models of 9CrMoCoB heat-resistant steel during high-temperature deformation. Journal of Iron and Steel Research International, 2019, 26, 1228-1239.	2.8	8
57	Helium bubble evolution and deformation of single crystal $\hat{\pm}$ -Fe. Journal of Materials Science, 2019, 54, 1785-1796.	3.7	8
58	In situ formation process and mechanism of bulk $MgB_2$ before Mg melting. Journal of Materials Research, 2008, 23, 1840-1848.	2.6	7
59	Damage micromechanics properties of bicrystalline $\hat{\pm}$ -Fe metals with two-voids. Physica B: Condensed Matter, 2017, 521, 275-280.	2.7	7
60	Influence of Al Addition Upon the Microstructure and Mechanical Property of Dual-Phase 9Cr-ODS Steels. Metals and Materials International, 2019, 25, 168-178.	3.4	7
61	Enhanced critical current density in the low-temperature sintered Nb3Al superconductor with Sn doping. Intermetallics, 2020, 119, 106708.	3.9	6
62	Influence of minor Ti additive on the microstructure and mechanical properties of Mo based alloys. International Journal of Refractory Metals and Hard Materials, 2021, 99, 105599.	3.8	5
63	Effect of microstructure on temperature dependence of deformation behavior in polycrystalline CoNi-based superalloy. Journal of Materials Science, 2022, 57, 687-699.	3.7	4
64	Analysis of cracks origin behaviors during sulfide stress corrosion (SSC) in HSLA steel at different temperatures by electrochemical noise. Journal of Iron and Steel Research International, 2022, 29, 1836-1845.	2.8	4
65	Effect of deformation twinning on high-temperature performance of cold-rolled S31042 steel. Journal of Iron and Steel Research International, 2019, 26, 704-711.	2.8	2
66	Nanoscale segregation mechanism of cation dopant at the matrix/oxide interface in oxide dispersion-strengthened alloys. Journal of Materials Science, 2021, 56, 6251-6268.	3.7	2
67	Dynamic and quasi-static compressive performance of integral-forming aluminum foam sandwich. Journal of Iron and Steel Research International, 0, , .	2.8	2
68	The influence of phase formation routes on the microstructure and critical current density of Nb3Al superconductor prepared by mechanical alloying and subsequent sintering. Ceramics International, 2020, 46, 7977-7981.	4.8	1