

# Wenchao Yang

## List of Publications by Year in descending order

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53  
papers

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623188

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752256

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times ranked

359  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel $\beta$ -type Zr-Mo-Ti alloys for biological hard tissue replacements. <i>Materials &amp; Design</i> , 2014, 53, 8-12.	5.1	43
2	Designing highly efficient 3D porous Ni-Fe sulfide nanosheets based catalyst for the overall water splitting through component regulation. <i>Journal of Colloid and Interface Science</i> , 2022, 616, 422-432.	5.0	37
3	Atomic structure and electronic properties of Ag(111)/TiC(111) interface: Insights from first-principles simulations. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 124, 212-220.	1.9	26
4	The electrochemical corrosion behavior of Pb-free Sn-8.5Zn-XCr solders in 3.5wt.% NaCl solution. <i>Materials Chemistry and Physics</i> , 2015, 168, 27-34.	2.0	25
5	Ab initio investigation into the structure and properties of Ir-Zr intermetallics for high-temperature structural applications. <i>Computational Materials Science</i> , 2017, 131, 146-159.	1.4	23
6	Theoretical understanding of atomic and electronic structures of the ZrC(111)/Cu(111) interface. <i>Journal of Alloys and Compounds</i> , 2019, 791, 431-437.	2.8	23
7	Insight into structural, mechanical, electronic and thermodynamic properties of intermetallic phases in Zr-Sn system from first-principles calculations. <i>Journal of Physics and Chemistry of Solids</i> , 2015, 86, 177-185.	1.9	21
8	Theoretical investigation of the Al-Cr-B orthorhombic ternary compounds. <i>Computational and Theoretical Chemistry</i> , 2013, 1020, 51-56.	1.1	18
9	Enhancement of wear and corrosion resistance of low modulus $\beta$ -type Zr-20Nb-xTi (x = 0, 3) dental alloys through thermal oxidation treatment. <i>Materials Science and Engineering C</i> , 2017, 76, 260-268.	3.8	17
10	Insights into the atomic scale structure, bond characteristics and wetting behavior of Cu(001)/Cu <sub>6</sub> Sn <sub>5</sub> (110) interface: A first-principles investigation. <i>Vacuum</i> , 2021, 187, 110103.	1.6	17
11	Interfacial reaction and mechanical properties of Sn58Bi-XCr solder joints under isothermal aging conditions. <i>Vacuum</i> , 2021, 194, 110559.	1.6	17
12	Site preference of the alloying additions on mechanical and electronic properties of B2 ZrRu-based compounds. <i>Computational Materials Science</i> , 2016, 117, 1-6.	1.4	16
13	A comparative first-principles study on electronic structures and mechanical properties of ternary intermetallic compounds Al <sub>8</sub> Cr <sub>4</sub> Y and Al <sub>8</sub> Cu <sub>4</sub> Y: Pressure and tension effects. <i>Journal of Physics and Chemistry of Solids</i> , 2016, 98, 298-308.	1.9	15
14	Distribution trends and influence of 4d transition metal elements (Ru, Rh and Pd) doping on mechanical properties and martensitic transformation temperature of B2-ZrCu phase. <i>Journal of Physics and Chemistry of Solids</i> , 2017, 111, 372-382.	1.9	14
15	Adsorption and migration behavior of molybdenum atom on graphite (0001) surface. <i>Applied Surface Science</i> , 2019, 470, 1064-1070.	3.1	14
16	Theoretical Prediction of Transition Metal Alloying Effects on the Lightweight TiAl Intermetallic. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 1451-1459.	1.1	12
17	Insight into interfacial structure and bonding nature of diamond(001)/Cr <sub>3</sub> C <sub>2</sub> (001) interface. <i>Journal of Alloys and Compounds</i> , 2019, 770, 82-89.	2.8	12
18	Development of CoCrFeNiVAl <sub>x</sub> High-Entropy Alloys Based on Solid Solution Strengthening. <i>Jom</i> , 2019, 71, 3473-3480.	0.9	12

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19	Effect of Aluminum Addition on the Microstructure and Properties of Non-Eutectic Sn-20Bi Solder Alloys. <i>Materials</i> , 2019, 12, 1194.	1.3	12
20	Influence of Nb concentration on the structure, stability, and electronic and mechanical properties of D022 Al <sub>3</sub> Ti by first-principles calculations and experiments. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 131, 243-253.	1.9	11
21	Enhanced C atom adsorption on Cu(111) substrate by doping rare earth element Y for Cu-diamond composites: A first-principles study. <i>Journal of Alloys and Compounds</i> , 2020, 831, 154747.	2.8	11
22	Characterization of Waste Amidoxime Chelating Resin and Its Reutilization Performance in Adsorption of Pb(II), Cu(II), Cd(II) and Zn(II) Ions. <i>Metals</i> , 2022, 12, 149.	1.0	11
23	Ab initio Insight Into the Structure and Properties of Zr-Si System. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900018.	0.7	9
24	New Zr-Ti-Mo alloys for dental implant application: Properties characterization and surface analysis. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 111, 104017.	1.5	9
25	Development of novel CoCu <sub>0.5</sub> FeNiVTi <sub>x</sub> (x = 0, 0.5, 1, 1.5, 2) high-entropy alloys. <i>Materials Science and Technology</i> , 2018, 34, 952-960.	0.8	8
26	Effect of Graphene Nanosheet Addition on the Wettability and Mechanical Properties of Sn-20Bi-xGNS/Cu Solder Joints. <i>Materials</i> , 2020, 13, 3968.	1.3	8
27	Insight into the structural and electronic properties of orthorhombic Cr <sub>3</sub> C <sub>2</sub> (001) surface. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 118, 68-72.	1.9	7
28	A dense gas dispersion model based on revised meteorological parameters and its performance evaluation. <i>Atmospheric Environment</i> , 2021, 244, 117953.	1.9	7
29	Influence of vacancy on the mechanical behavior, thermodynamic properties and electronic structure of orthorhombic Ti <sub>3</sub> Sn from first-principles calculations. <i>Vacuum</i> , 2021, 188, 110178.	1.6	7
30	Effect of Aging Treatment on the Corrosion Resistance Properties of 7N01 Extrusion Aluminum Alloy. <i>Materials</i> , 2021, 14, 3615.	1.3	6
31	Bonding characteristics and site occupancies of alloying elements in Zr <sub>3</sub> Al <sub>2</sub> compound from first principles. <i>Journal of Alloys and Compounds</i> , 2015, 622, 960-965.	2.8	5
32	Phase diagram of the Al-Er-Mo ternary system at 873 K. <i>Phase Transitions</i> , 2015, 88, 1111-1121.	0.6	5
33	The different influences of the two incorporation sites of B atoms on the mechanical and thermodynamic properties of B <sub>2</sub> ZrCu compounds: a first-principle calculation. <i>Philosophical Magazine</i> , 2018, 98, 517-530.	0.7	5
34	Mechanism of FCC structure formation in NiCoFeCuMn equiatomic high-entropy alloys. <i>Arabian Journal for Science and Engineering</i> , 2019, 44, 6637-6644.	1.7	5
35	The Stability and Electronic Structure of Cu(200)/AuCu(200) Interface: An Insight from First-Principle Calculation. <i>Materials</i> , 2022, 15, 1506.	1.3	4
36	Experimental Investigation of Phase Equilibria in the Ho-Ti-Si Ternary System at 973 K (700°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1851-1858.	1.1	3

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37	Understanding the influence of rare earth yttrium on surface characterizations of orthorhombic $\text{Ti}_2\text{Mo}_2\text{C}(023)$ surface: A first-principle calculation approach. <i>Surface Science</i> , 2021, 708, 121823.	0.8	3
38	Systematic analysis of the structural, elastic, and electronic properties of $\text{TiCuMe}$ (Me=Al, Ga and) $\text{Ti}_2\text{Ti}_2\text{O}_2$ $\text{Ti}_2\text{Ti}_2\text{O}_2$ $\text{Ti}_2\text{Ti}_2\text{O}_2$	1.9	2
39	Solid-State Phase Equilibria of the V-Si-Gd System at 973K (700°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4194-4200.	1.1	2
40	Experimental Phase Diagram of the Al-Mo-Gd Ternary System at 773K. <i>Journal of Phase Equilibria and Diffusion</i> , 2015, 36, 218-223.	0.5	2
41	Solid-State Phase Equilibria and Intermetallic Compounds of the Si-V-Zr Ternary System. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 6569-6576.	1.1	2
42	Intrinsic Properties and Structure of AB <sub>2</sub> Laves Phase ZrW <sub>2</sub> . <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 3082-3089.	1.1	2
43	Properties and electronic structure of Al/Mo <sub>2</sub> C interfaces: insights from first principle simulation. <i>Philosophical Magazine</i> , 2021, 101, 1061-1080.	0.7	2
44	Effects of Yttrium Addition on the Microstructure Evolution and Electrochemical Corrosion of SN-9Zn Lead-Free Solders Alloy. <i>Materials</i> , 2021, 14, 2549.	1.3	2
45	Morphological Evolution of TiB <sub>2</sub> and TiAl <sub>3</sub> in Al-Ti-B Master Alloy Using Different Ti Adding Routes. <i>Materials</i> , 2022, 15, 1984.	1.3	2
46	Phase-Equilibrium Investigation of the Al-Cr-Er Ternary System at 773K (500°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 2956-2970.	1.1	1
47	Al-Cr-Dy system: Phase relationships and crystallography. <i>Journal of Solid State Chemistry</i> , 2019, 276, 47-55.	1.4	1
48	Solid State Phase Equilibria of an Al-Sn-Y Ternary System. <i>Materials</i> , 2019, 12, 444.	1.3	1
49	Phase-equilibria investigation of the Dy-Mo-Si ternary system at 1173K (900°C). <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2021, 72, 102232.	0.7	1
50	Solid State Phase Equilibria and Solid Solution of the Si-Y-Zr Ternary System at 1173K. <i>Journal of Phase Equilibria and Diffusion</i> , 2018, 39, 401-411.	0.5	0
51	Solid-State Phase Diagram of the Ho-Zr-Si Ternary System at 973K (700°C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 966-974.	1.1	0
52	Design and Characterization of Novel Biomedical Zr <sub>4</sub> Cu <sub>x</sub> Nb <sub>x</sub> Sn Alloys for Hard Tissue Substitution. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 6075-6084.	1.7	0
53	Exploration of Rare-Earth Element Sc to Enhance Microstructure, Mechanical Properties and Corrosion Resistance of Zr <sub>8</sub> Si Biomedical Alloy. <i>Journal of Bionic Engineering</i> , 0, , 1.	2.7	0