

Xiao Huang

List of Publications by Year in descending order

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117
papers

15,107
citations

117571

34
h-index

38368

95
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125
all docs

125
docs citations

125
times ranked

21408
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene-based composites. <i>Chemical Society Reviews</i> , 2012, 41, 666-686.	18.7	3,513
2	Graphene-Based Materials: Synthesis, Characterization, Properties, and Applications. <i>Small</i> , 2011, 7, 1876-1902.	5.2	2,239
3	Metal dichalcogenide nanosheets: preparation, properties and applications. <i>Chemical Society Reviews</i> , 2013, 42, 1934.	18.7	1,809
4	Ni ₃ S ₂ nanorods/Ni foam composite electrode with low overpotential for electrocatalytic oxygen evolution. <i>Energy and Environmental Science</i> , 2013, 6, 2921.	15.6	939
5	Graphene-Based Electrodes. <i>Advanced Materials</i> , 2012, 24, 5979-6004.	11.1	829
6	Solution-phase epitaxial growth of noble metal nanostructures on dispersible single-layer molybdenum disulfide nanosheets. <i>Nature Communications</i> , 2013, 4, 1444.	5.8	756
7	25th Anniversary Article: Hybrid Nanostructures Based on Two-Dimensional Nanomaterials. <i>Advanced Materials</i> , 2014, 26, 2185-2204.	11.1	579
8	Synthesis of hexagonal close-packed gold nanostructures. <i>Nature Communications</i> , 2011, 2, 292.	5.8	553
9	Growth of noble metal nanoparticles on single-layer TiS ₂ and TaS ₂ nanosheets for hydrogen evolution reaction. <i>Energy and Environmental Science</i> , 2014, 7, 797-803.	15.6	323
10	Stabilization of 4H hexagonal phase in gold nanoribbons. <i>Nature Communications</i> , 2015, 6, 7684.	5.8	215
11	Reduced Graphene Oxide-Templated Photochemical Synthesis and in situ Assembly of Au Nanodots to Orderly Patterned Au Nanodot Chains. <i>Small</i> , 2010, 6, 513-516.	5.2	202
12	Thin metal nanostructures: synthesis, properties and applications. <i>Chemical Science</i> , 2015, 6, 95-111.	3.7	198
13	Surface modification-induced phase transformation of hexagonal close-packed gold square sheets. <i>Nature Communications</i> , 2015, 6, 6571.	5.8	195
14	Coating Two-Dimensional Nanomaterials with Metal-Organic Frameworks. <i>ACS Nano</i> , 2014, 8, 8695-8701.	7.3	168
15	Electrochemical Deposition of Semiconductor Oxides on Reduced Graphene Oxide-Based Flexible, Transparent, and Conductive Electrodes. <i>Journal of Physical Chemistry C</i> , 2010, 114, 11816-11821.	1.5	159
16	Effect of wire and arc additive manufacturing (WAAM) process parameters on bead geometry and microstructure. <i>Additive Manufacturing</i> , 2019, 26, 138-146.	1.7	147
17	Graphene Oxide-Templated Synthesis of Ultrathin or Tadpole-Shaped Au Nanowires with Alternating <i>hcp</i> and <i>fcc</i> Domains. <i>Advanced Materials</i> , 2012, 24, 979-983.	11.1	135
18	Synthesis of Gold Square-Like Plates from Ultrathin Gold Square Sheets: The Evolution of Structure Phase and Shape. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 12245-12248.	7.2	121

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19	Superalloys. , 2010, , .		117
20	Gold Coating of Silver Nanoprisms. <i>Advanced Functional Materials</i> , 2012, 22, 849-854.	7.8	116
21	The effect of grain boundary segregation of boron in cast alloy 718 on HAZ microfissuring—A SIMS analysis. <i>Acta Materialia</i> , 1997, 45, 3095-3107.	3.8	91
22	Laser-Based Additive Manufacturing Technologies for Aerospace Applications. <i>Advanced Engineering Materials</i> , 2019, 21, 1900617.	1.6	87
23	Photochemically Controlled Synthesis of Anisotropic Au Nanostructures: Platelet-like Au Nanorods and Six-Star Au Nanoparticles. <i>ACS Nano</i> , 2010, 4, 6196-6202.	7.3	82
24	Effect of homogenization heat treatment on the microstructure and heat-affected zone microfissuring in welded cast alloy 718. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1996, 27, 785-790.	1.1	70
25	Microstructure and tribological properties of CrN and CrSiCN coatings. <i>Surface and Coatings Technology</i> , 2010, 205, 182-188.	2.2	58
26	Novel Porous Hydroxyapatite Prepared by Combining H ₂ O ₂ Foaming with PU Sponge and Modified with PLGA and Bioactive Glass. <i>Journal of Biomaterials Applications</i> , 2007, 21, 351-374.	1.2	57
27	Design and fabrication of hybrid bi-modal wick structure for heat pipe application. <i>Journal of Porous Materials</i> , 2008, 15, 635-642.	1.3	54
28	Wide Gap Braze Repair of Gas Turbine Blades and Vanes—A Review. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	0.5	51
29	Development of Composite Wicks for Heat Pipe Performance Enhancement. <i>Heat Transfer Engineering</i> , 2008, 29, 873-884.	1.2	49
30	Mechanical properties, sliding wear and solid particle erosion behaviors of plasma enhanced magnetron sputtering CrSiCN coating systems. <i>Wear</i> , 2015, 324-325, 27-35.	1.5	49
31	Characterization of transient oxide formation on CoNiCrAlY after heat treatment in vacuum and air. <i>Surface and Coatings Technology</i> , 2010, 205, 647-657.	2.2	40
32	Influence of wick characteristics on heat pipe performance. <i>International Journal of Energy Research</i> , 2006, 30, 489-499.	2.2	39
33	Microstructure and phase transformation of zirconia-based ternary oxides for thermal barrier coating applications. <i>Journal of Materials Science</i> , 2008, 43, 2631-2641.	1.7	36
34	Assembly of Graphene Oxide and Au _{0.7} Ag _{0.3} Alloy Nanoparticles on SiO ₂ : A New Raman Substrate with Ultrahigh Signal-to-Background Ratio. <i>Journal of Physical Chemistry C</i> , 2011, 115, 24080-24084.	1.5	36
35	Examination of a Grit-Blasting Process for Thermal Spraying Using Statistical Methods. <i>Journal of Thermal Spray Technology</i> , 2005, 14, 471-479.	1.6	34
36	Metal-layer-assisted coalescence of Au nanoparticles and its effect on diameter control in vapor-liquid-solid growth of oxide nanowires. <i>Physical Review B</i> , 2011, 83, .	1.1	31

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37	Experimental study of the thermal conductivity of metal oxides co-doped yttria stabilized zirconia. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2008, 149, 63-72.	1.7	27
38	Microstructure and Corrosion Behavior of CrN and CrSiCN Coatings. <i>Journal of Materials Engineering and Performance</i> , 2010, 19, 721-727.	1.2	25
39	A BRIEF REVIEW ON GRAPHENE-NANOPARTICLE COMPOSITES. <i>Cosmos</i> , 2010, 06, 159-166.	0.4	24
40	Characterization of Ni ₂₀ Cr ₅ Al model alloy in supercritical water. <i>Journal of Nuclear Materials</i> , 2014, 445, 298-307.	1.3	20
41	Solid Particle Erosion Behaviors of Carbon-Fiber Epoxy Composite and Pure Titanium. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 290-296.	1.2	20
42	Effect of Grain Size on the Weldability of Cast Alloy 718. <i>Materials and Manufacturing Processes</i> , 2004, 19, 285-311.	2.7	18
43	Design and modeling of multiple layered TBC system with high reflectance. <i>Journal of Materials Science</i> , 2006, 41, 6245-6255.	1.7	18
44	Sintering resistance of suspension plasma sprayed 7YSZ TBC under isothermal and cyclic oxidation. <i>Journal of the European Ceramic Society</i> , 2020, 40, 2030-2041.	2.8	18
45	Oxidation Behaviour of Alloys 800H, 3033 and 304 in High-Temperature Supercritical Water. <i>Oxidation of Metals</i> , 2018, 89, 151-163.	1.0	17
46	Transient Oxide Formation on APS NiCrAlY After Oxidation Heat Treatment. <i>Journal of Thermal Spray Technology</i> , 2011, 20, 621-629.	1.6	16
47	Characterization of porous bi-modal Ni structures. <i>Journal of Porous Materials</i> , 2009, 16, 165-173.	1.3	14
48	Phase Transformation and Lattice Parameter Changes of Non-trivalent Rare Earth-Doped YSZ as a Function of Temperature. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 2263-2270.	1.2	14
49	Isothermal Oxidation Behavior of VC and Columnar Structured Thermal Barrier Coatings Deposited by Suspension Plasma Spray Technology. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 1060-1070.	1.6	13
50	Wide Gap Braze Repair Using Vertically Laminated Repair Scheme. <i>Journal of Engineering for Gas Turbines and Power</i> , 2009, 131, .	0.5	12
51	Effect of Tungsten Addition on the Nucleation of Borides in Wide Gap Brazed Joint. <i>Journal of Engineering for Gas Turbines and Power</i> , 2010, 132, .	0.5	12
52	Effects of substrate material and TBC structure on the cyclic oxidation resistance of TBC systems. <i>Surface and Coatings Technology</i> , 2014, 258, 49-61.	2.2	11
53	Corrosion Behaviour 310 Stainless Steel in Superheated Steam. <i>Oxidation of Metals</i> , 2015, 84, 621-631.	1.0	11
54	Sub- and Supercritical Water Gasification of Rice Husk: Parametric Optimization Using the I-Optimality Criterion. <i>ACS Omega</i> , 2021, 6, 12480-12499.	1.6	11

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55	Study on Composition-Induced Microstructural Variation in the Interface Between Co-Based Hardfacing Alloys and IN738 Ni-Based Superalloy. <i>Journal of Materials Engineering and Performance</i> , 2004, 13, 158-166.	1.2	10
56	Design and computational analysis of highly reflective multiple layered thermal barrier coating structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007, 460-461, 101-110.	2.6	10
57	Brazing and Wide Gap Repair of X-40 Using Ni-Base Alloys. <i>Journal of Engineering for Gas Turbines and Power</i> , 2008, 130, .	0.5	10
58	Corrosion Behaviour of Alloy 800H in Low Density Superheated Steam. <i>ISIJ International</i> , 2016, 56, 1067-1075.	0.6	10
59	A Study of Pack Aluminizing Process for NiCrAlY Coatings Using Response Surface Methodology. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 83-91.	1.2	9
60	High Temperature Radiation Heat Transfer Performance of Thermal Barrier Coatings With Multiple Layered Structures. <i>Journal of Engineering for Gas Turbines and Power</i> , 2009, 131, .	0.5	8
61	High temperature performance of mullite whisker-reinforced ZTA. <i>Journal of Composite Materials</i> , 2016, 50, 3719-3729.	1.2	8
62	Developing Corrosion Prevention Coating Solutions for the Canadian SCWR Concept. <i>Jom</i> , 2016, 68, 480-484.	0.9	8
63	Fracture performance and crack growth prediction of SPS TBCs in isothermal experiments by crack numbering density. <i>Ceramics International</i> , 2020, 46, 2682-2692.	2.3	8
64	Tribological Behaviors of Titanium Nitride- and Chromium-Nitride-Based Physical Vapor Deposition Coating Systems. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	0.5	7
65	Experimental study of phase transformation and specific heat of ternary zirconia-based oxides using differential scanning calorimetry. <i>Journal of Alloys and Compounds</i> , 2009, 488, 469-478.	2.8	6
66	Fatigue Properties of Narrow and Wide Gap Braze Repaired Joints. <i>Journal of Engineering for Gas Turbines and Power</i> , 2011, 133, .	0.5	6
67	Development of the Process Index for NiCrAlY Coatings with the Mettech Axial III [®] , [®] System. <i>Journal of Materials Engineering and Performance</i> , 2013, 22, 713-722.	1.2	6
68	Performance of Chemical Vapor Deposition and Plasma Spray-Coated Stainless Steel 310 in Supercritical Water. <i>Journal of Nuclear Engineering and Radiation Science</i> , 2016, 2, .	0.2	6
69	Isothermal and Cyclic Oxidation Performance of Vertically Cracked and Columnar Thermal Barrier Coating Structures Produced Using Axial Suspension Plasma Spraying Process. <i>Journal of Engineering for Gas Turbines and Power</i> , 2016, 138, .	0.5	6
70	Recent Trends in Newly Developed Plasma-Sprayed and Sintered Coatings for Implant Applications. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 1088-1110.	1.6	6
71	Al depletion and elemental redistribution in PtAl coated CMSX-4 and IN738LC after high-temperature exposure. <i>Materials at High Temperatures</i> , 2019, 36, 499-510.	0.5	6
72	Effect of Microstructure on the Solid Particle Erosion Properties of Ni Plating. <i>Journal of Materials Engineering and Performance</i> , 2009, 18, 305-311.	1.2	5

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73	On the thermodynamics and microstructure of variably cooled and co-doped Y2O3-ZrO2 for application to thermal barrier coatings. Surface and Coatings Technology, 2010, 205, 1843-1849.	2.2	5
74	Corrosion Behaviour of Bare and NiCrAlY Coated Alloy 214 in Supercritical Water at 700â€‰%âˆ°C. Journal of Nuclear Engineering and Radiation Science, 2018, 4, .	0.2	5
75	Correlation between crystal structure and mechanical performance of Cr-implanted 300M high-strength steel using X-ray diffraction method. Journal of Iron and Steel Research International, 2019, 26, 1106-1116.	1.4	5
76	Effect of Ruthenium, Rhenium and Yttria Additions on the Microstructure of Wide Gap Brazing of IN738. , 2007, , .		5
77	Investigation of Stress Assisted Grain Boundary Oxidation Cracking in MAR-M002 High Pressure Turbine Blades. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	4
78	Layered Nanomaterials: Fabrication of Single- and Multilayer MoS2 Film-Based Field-Effect Transistors for Sensing NO at Room Temperature (Small 1/2012). Small, 2012, 8, 2-2.	5.2	4
79	Electrochemical Behaviours of Titanium Nitride (TiN) and Chromium Nitride (CrN) Based PVD Coating Systems. , 2013, , .		4
80	Microstructure, bioactivity and wear resistance of sintered composite Co-Cr-Mo/BioglassÂ® for medical implant applications. International Journal of Surface Science and Engineering, 2014, 8, 264.	0.4	4
81	Nanoâ€™Hydroxyapatite and TiO₂ Bioactivated Polymer for Implant Applications. Advanced Engineering Materials, 2017, 19, 1600727.	1.6	4
82	EFFECT OF WATER OR STEAM PRESSURE ON THE OXIDATION BEHAVIOUR OF ALLOY 625 AND A286Âˆ625ÂˆÂ°C. CNL Nuclear Review, 0, , 1-11.	0.6	4
83	Isothermal Oxidation of RenÃ© N5 at 1150Â°C. , 2018, , .		3
84	Performance of Aluminide and Cr-Modified Aluminide Pack Cementation-Coated Stainless Steel 304 in Supercritical Water at 700â€‰%âˆ°C. Journal of Nuclear Engineering and Radiation Science, 2019, 5, .	0.2	3
85	Evaluation of oxidation behavior of two potential coating alloys T14 and T19 for superheated steam and supercritical water power plant application. Surface and Coatings Technology, 2019, 370, 69-81.	2.2	3
86	Oxidation behaviour of alloy S16 in superheated steam and supercritical water. Materials at High Temperatures, 2020, 37, 1-10.	0.5	3
87	Latest Advancements in Thermal Barrier Coatings. Canadian Aeronautics and Space Journal, 2004, 50, 107-114.	0.1	2
88	Wide Gap Braze Repair Using Vertically Laminated Repair Scheme. , 2008, , .		1
89	Effect of Tungsten Addition on the Nucleation of Borides in Wide Gap Brazed Joint. , 2009, , .		1
90	Fatigue Properties of Narrow and Wide Gap Braze Repaired Joints. , 2010, , .		1

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91	Investigation of Stress Assisted Grain Boundary Oxidization (SAGBO) Cracking in Mar-M002 High Pressure Turbine Blades. , 2010, , .		1
92	TGO Evolution and Coating Property Changes for EB-PVD TBC Coatings Under Cyclic Oxidation Condition. , 2010, , .		1
93	Life Prediction and Metallographical Examination of SAGBO Cracking in RB211 High Pressure Turbine Blades. , 2012, , .		1
94	Tribological Behaviours of Titanium Nitride and Chromium Nitride Based PVD Coating Systems. , 2012, , .		1
95	Calorimetric analysis of dysprosia and dysprosia-doped zirconia ceramics. Journal of Thermal Analysis and Calorimetry, 2012, 110, 1061-1067.	2.0	1
96	Mechanical Properties of Plasma-Sprayed Mullite-Reinforced Titania-Bioglass Composite. International Journal of Applied Ceramic Technology, 2016, 13, 1074-1083.	1.1	1
97	Supercritical Oxidation of Boiler Tube Materials. Journal of Nuclear Engineering and Radiation Science, 2016, 2, .	0.2	1
98	Microstructure Study of NiCrAlY and FeCrAlY Exposed to Superheated Steam at 800°C. Journal of Nuclear Engineering and Radiation Science, 2018, 4, .	0.2	1
99	Effect of Steam Pressure on the Oxidation Behaviour of Alloy 625. Minerals, Metals and Materials Series, 2017, , 329-341.	0.3	1
100	Catalytic supercritical water gasification of biomass waste using iron-doped alkaline earth catalysts. Biomass Conversion and Biorefinery, 0, , .	2.9	1
101	Effect of Co-Doping on Microstructure, Thermal and Mechanical Properties of Ternary Zirconia-Based Thermal Barrier Coating Materials. , 2009, , .		0
102	Metal Frame Reinforced Ceramic Matrix Composite for High Temperature Applications. , 2012, , .		0
103	Reducing Thermal Conductivity of Ceramic Materials Through Alloying. , 2012, , .		0
104	Erosion Resistance of Titania Co-Doped Yttria Stabilized Zirconia. , 2012, , .		0
105	Wide Gap Brazing of IN 738 With Boron Free Ni-Co-Zr-Hf-Cr-Ti-Al Braze Alloy. , 2014, , .		0
106	Mullite Whisker Reinforced Zirconia Toughened Alumina for High Temperature Applications. , 2014, , .		0
107	Microstructure Characterization and Wear Test of Plasma Sprayed and Sintered CP-T Coatings. Advanced Engineering Materials, 2014, 16, 45-51.	1.6	0
108	Gasification of Bio-Waste and Biomass Products Through Exposure to High Density and Low Density Supercritical Water. , 2014, , .		0

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109	Development and Oxidation Test of Metal Mesh Reinforced Ceramic Composite Material. , 2014, , .		0
110	Isothermal and Cyclic Oxidation Performance of Vertically Cracked and Columnar TBC Structures Produced Using ASPS Process. , 2015, , .		0
111	Characterization of Alloy 214 After Exposure to Superheated Steam at 800â€™°C. Journal of Nuclear Engineering and Radiation Science, 2018, 4, .	0.2	0
112	Assessing the Feasibility of Micro-Plasma Technology for Additive Manufacturing. , 2018, , .		0
113	Characterization of alloy 3033 after exposure to superheated steam at 800â€™°C. Materials at High Temperatures, 2019, 36, 117-124.	0.5	0
114	High Temperature Radiation Heat Transfer Performance of Thermal Barrier Coatings With Multiple Layered Structures. , 2008, , .		0
115	Application and anti-bacterial performance evaluation of liquid glass coating. International Journal of Materials and Product Technology, 2018, 56, 326.	0.1	0
116	Microstructure and Oxidation Behavior of Narrow Gap Brazing and Wide Gap Brazing Joints With Boron/Silicon-Free Nickel Base Braze Alloys. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	0.5	0
117	Coordinated Heat and Feed Printing Strategy for Wire and Arc Additive Manufacturing of Metal-Cored Wires. Journal of Materials Engineering and Performance, 2021, 30, 8841.	1.2	0