

# Xing-Wang Cheng

## List of Publications by Year in descending order

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107  
papers

2,397  
citations

218677

26  
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254184

43  
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108  
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108  
docs citations

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times ranked

1725  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of multi-physical fields induced phenomena and effects in spark plasma sintering: Fundamentals and applications. <i>Materials and Design</i> , 2020, 191, 108662.	7.0	286
2	Broadband microwave absorption of Fe <sub>3</sub> O <sub>4</sub> /BaTiO <sub>3</sub> composites enhanced by interfacial polarization and impedance matching. <i>Composites Part B: Engineering</i> , 2019, 163, 598-605.	12.0	96
3	Investigation on the microstructure, room and high temperature mechanical behaviors and strengthening mechanisms of the (TiB+TiC)/TC4 composites. <i>Journal of Alloys and Compounds</i> , 2017, 726, 240-253.	5.5	88
4	Novel synthesizing and characterization of copper matrix composites reinforced with carbon nanotubes. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 696, 80-89.	5.6	86
5	High-entropy alloy particle reinforced Al-based amorphous alloy composite with ultrahigh strength prepared by spark plasma sintering. <i>Materials and Design</i> , 2016, 109, 219-226.	7.0	85
6	Design of novel low-density refractory high entropy alloys for high-temperature applications. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 755, 318-322.	5.6	73
7	Designing V-NbMoTa refractory high-entropy alloys with improved properties for high-temperature applications. <i>Scripta Materialia</i> , 2021, 191, 131-136.	5.2	70
8	Microstructures and mechanical properties of HfNbTaTiZrW and HfNbTaTiZrMoW refractory high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2019, 803, 778-785.	5.5	69
9	Fabrication, characterization and tensile property of a novel Ti <sub>2</sub> Ni/TiNi micro-laminated composite. <i>Materials and Design</i> , 2016, 92, 486-493.	7.0	56
10	Effect of Ni/Cr ratio on phase, microstructure and mechanical properties of Ni <sub>x</sub> CoCuFeCr <sub>2-x</sub> (x=1.0). <i>Journal of Alloys and Compounds</i> , 2019, 787, 151-157.	5.5	52
11	Designing TiVNbTaSi refractory high-entropy alloys with ambient tensile ductility. <i>Scripta Materialia</i> , 2022, 206, 114230.	5.2	51
12	Synthesis and Electromagnetic and Microwave Absorption Properties of Monodisperse Fe <sub>3</sub> O <sub>4</sub> /Fe <sub>2</sub> O <sub>3</sub> Composites. <i>ACS Applied Nano Materials</i> , 2018, 1, 3935-3944.	5.0	50
13	Failure mechanisms in ballistic performance of Ti-6Al-4V targets having equiaxed and lamellar microstructures. <i>International Journal of Impact Engineering</i> , 2015, 85, 161-169.	5.0	46
14	Synthesis and thermochromic property studies on W doped VO <sub>2</sub> films fabricated by sol-gel method. <i>Scientific Reports</i> , 2017, 7, 6132.	3.3	45
15	Effect of microstructures on ballistic impact property of Ti-6Al-4V targets. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 608, 53-62.	5.6	42
16	Spark plasma sintering of B <sub>4</sub> C-TiB <sub>2</sub> -SiC composite ceramics using B <sub>4</sub> C, Ti <sub>3</sub> SiC <sub>2</sub> and Si as starting materials. <i>Ceramics International</i> , 2018, 44, 21626-21632.	4.8	39
17	The influence of defect structures on the mechanical properties of Ti-6Al-4V alloys deformed by high-pressure torsion at ambient temperature. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 684, 1-13.	5.6	38
18	Mechanical properties of an Al-Zn-Mg alloy processed by ECAP and heat treatments. <i>Journal of Alloys and Compounds</i> , 2018, 769, 631-639.	5.5	38

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19	The Microstructure and Mechanical Properties of Refractory High-Entropy Alloys with High Plasticity. <i>Materials</i> , 2018, 11, 208.	2.9	38
20	The role of interfacial reaction on the dynamic mechanical response in graphene nano-flake/Ti composites. <i>Carbon</i> , 2019, 152, 986-990.	10.3	34
21	Interstitial strengthening of refractory ZrTiHfNb0.5Ta0.5Ox ( $x = 0.05, 0.1, 0.2$ ) high-entropy alloys. <i>Materials Letters</i> , 2018, 228, 145-147.	2.6	30
22	Effects of vanadium concentration on mechanical properties of V NbMoTa refractory high-entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 808, 140848.	5.6	30
23	Hydrothermal synthesis and photocatalytic properties of pyrochlore Sm <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> nanoparticles. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016, 321, 48-54.	3.9	29
24	Achieving high performance in graphite nano-flakes reinforced titanium matrix composites through a novel reaction interface design. <i>Carbon</i> , 2021, 175, 334-351.	10.3	29
25	Effect of heat treatments on the microstructures and tensile properties of an ultrafine-grained Al-Zn-Mg alloy processed by ECAP. <i>Journal of Alloys and Compounds</i> , 2018, 749, 567-574.	5.5	28
26	Preparation and microwave absorption properties of microsheets VO <sub>2</sub> (M). <i>Journal of Alloys and Compounds</i> , 2019, 791, 307-315.	5.5	27
27	The effect of Ti-Mo-Nb on the microstructures and tensile properties of a Fe-Mn-Al-C austenitic steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 780, 139220.	5.6	27
28	Good strength-plasticity compatibility in graphene nanoplatelets/Ti composites by strengthening the interface bonding via in-situ formed TiB whisker. <i>Ceramics International</i> , 2021, 47, 4338-4343.	4.8	26
29	Strain rate dependence of compressive behavior in an Al-Zn-Mg alloy processed by ECAP. <i>Journal of Alloys and Compounds</i> , 2019, 791, 1079-1087.	5.5	25
30	The effects of thickness of original Ti foils on the microstructures and mechanical properties of Ti <sub>2</sub> Ni/TiNi laminated composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 684, 292-302.	5.6	24
31	Phase-field simulations of vortex chirality manipulation in ferroelectric thin films. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	22
32	Al-based bulk metallic glass with large plasticity and ultrahigh strength. <i>Journal of Alloys and Compounds</i> , 2015, 648, 276-279.	5.5	21
33	Microstructural and mechanical properties of in-situ micro-laminated TiC/Ti composite synthesised. <i>Materials Letters</i> , 2018, 228, 1-4.	2.6	21
34	Microstructure, mechanical and physical properties of FeCoNiAlMnW high-entropy films deposited by magnetron sputtering. <i>Applied Surface Science</i> , 2020, 507, 145131.	6.1	21
35	Synthesis, characterization and electromagnetic absorbing performance of multi-step petaloid morphology VO <sub>2</sub> (M). <i>Ceramics International</i> , 2020, 46, 25493-25502.	4.8	21
36	Microstructures and mechanical properties of CoCrFeNiHf <sub>x</sub> high-entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 792, 139820.	5.6	21

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37	Excellent combination of compressive strength and ductility of (CoCrFeNi) <sub>1-x</sub> (Co <sub>0.26</sub> Cr <sub>0.07</sub> Fe <sub>0.16</sub> Ni <sub>0.31</sub> Hf <sub>0.4</sub> ) high-entropy alloys. <i>Materials and Design</i> , 2021, 202, 109569.	7.0	20
38	A TiB whisker-reinforced titanium matrix composite with controllable orientation: A novel method and superior strengthening effect. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 830, 142309.	5.6	20
39	Effects of annealing time on the microstructures and tensile properties of formed laminated composites in Ti-Ni system. <i>Journal of Alloys and Compounds</i> , 2017, 699, 695-705.	5.5	19
40	Electromagnetic Wave Absorption Performance on Fe <sub>3</sub> O <sub>4</sub> Polycrystalline Synthesized by the Synergy Reduction of Ethylene Glycol and Diethylene Glycol. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3628-3637.	3.1	19
41	Effects of Si additions on microstructures and mechanical properties of VNbTiTaSi refractory high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163517.	5.5	19
42	Effects of short time electric pulse heat treatment on microstructures and mechanical properties of hot-rolled Ti-6Al-4V alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 618, 104-111.	5.6	18
43	Influence of increasing Al concentration on phase, microstructure and mechanical behaviors of Ni <sub>1.5</sub> CoFeCu <sub>1-x</sub> Al <sub>x</sub> V <sub>0.5</sub> high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 708, 523-536.	5.6	18
44	Static and dynamic mechanical properties of Yttrium Aluminum Garnet (YAG). <i>Ceramics International</i> , 2019, 45, 12256-12263.	4.8	18
45	The investigation on Johnson-Cook model and dynamic mechanical behaviors of ultra-high strength steel M54. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 835, 142693.	5.6	18
46	Influence of tantalum on mechanical, ferroelectric and dielectric properties of Bi-excess Bi <sub>3.25</sub> La <sub>0.75</sub> Ti <sub>3</sub> O <sub>12</sub> thin film. <i>Applied Surface Science</i> , 2019, 463, 1141-1147.	6.1	17
47	Another eutectic point of Co-Cr-Fe-Ni-M (Hf, Ta, Nb) high-entropy system determined using a simple mixture method correlated with mixing enthalpy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140634.	5.6	17
48	Mechanical (compressive) form of driving force triggers the phase transformation from $\beta^2$ to $\beta$ & $\beta^2$ phases in metastable $\beta^2$ phase-field Ti-5553 alloy. <i>Journal of Materials Science and Technology</i> , 2021, 78, 238-246.	10.7	15
49	Achieving well-balanced strength and ductility in GNFs/Ti composite via laminated architecture design. <i>Carbon</i> , 2022, 189, 173-185.	10.3	15
50	Dielectric and ferroelectric properties of Ta-modified Bi <sub>3.25</sub> La <sub>0.75</sub> Ti <sub>3</sub> O <sub>12</sub> ceramics. <i>Ceramics International</i> , 2017, 43, 13193-13198.	4.8	14
51	Interface evolution and mechanical properties of nickel coated graphene nanoflakes/pure titanium matrix composites. <i>Journal of Alloys and Compounds</i> , 2021, 853, 157157.	5.5	14
52	Novel high-entropy alloys with high-density $\beta$ -D019 and abnormal phase transformation. <i>Scripta Materialia</i> , 2021, 199, 113893.	5.2	14
53	Mechanical properties and pre-oxidation behavior of spark plasma sintered B <sub>4</sub> C ceramics using (Ti <sub>3</sub> SiC <sub>2</sub> +CeO <sub>2</sub> /La <sub>2</sub> O <sub>3</sub> ) as sintering aid. <i>Ceramics International</i> , 2020, 46, 22189-22196.	4.8	12
54	The effect of TiC on microstructure and mechanical properties of Ti-5553 beta phase titanium alloy. <i>Materials and Design</i> , 2022, 214, 110395.	7.0	12

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55	Electrochemical performance of aluminum niobium oxide as anode for lithium-ion batteries. <i>Rare Metals</i> , 2016, 35, 256-261.	7.1	11
56	Effects of Ti foil thickness on microstructures and mechanical properties of in situ synthesized micro-laminated TiC/Ti composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 767, 138296.	5.6	11
57	Omega phase formation and deformation mechanism in heat treated Ti-5553 alloy under high strain rate compression. <i>Materials Letters</i> , 2019, 236, 163-166.	2.6	11
58	Graphene nanoplatelets (GNPs)-templated synthesis of oriented TiB and the inspiration for tailoring three-dimensional (3D) interface structure in GNPs/Ti matrix composites. <i>Materials Characterization</i> , 2021, 181, 111447.	4.4	11
59	Towards high performance in Ti-based composite through manipulating nickel coatings on graphene reinforcement. <i>Journal of Alloys and Compounds</i> , 2022, 893, 162240.	5.5	11
60	Penetration performance of W/Cu double-layer shaped charge liners. <i>Rare Metals</i> , 2016, 35, 184-191.	7.1	10
61	Direct achievement of ultra-high strength and good ductility for high Co-Ni secondary hardening steel by combining spark plasma sintering and deformation. <i>Materials Letters</i> , 2021, 290, 129465.	2.6	10
62	Ultrafast Ferroelectric Domain Switching Induced by Nano-Second Strain Pulse. <i>Advanced Theory and Simulations</i> , 2022, 5, .	2.8	10
63	Synthesis and magnetic properties of Al doped Zn <sub>0.995</sub> Mn <sub>0.005</sub> O powers. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	9
64	Strength-improved Al 65 Cu 16.5 Ti 18.5 amorphous/crystalline alloy synthesized by spark plasma sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 642, 377-380.	5.6	9
65	Controlling $\beta$ -Sn grain orientations in electronic interconnects with single-crystal Cobalt substrates. <i>Acta Materialia</i> , 2020, 194, 422-436.	7.9	9
66	Towards high performance GNPs/Ti composite through simultaneously manipulating laminated microstructure and interface reaction. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 814, 141230.	5.6	9
67	Study on hot deformation behavior of as-cast 22%W high-density steel. <i>Journal of Materials Research and Technology</i> , 2022, 17, 2355-2368.	5.8	9
68	Adiabatic shear banding of hot-rolling Ti-6Al-4V alloy subjected to dynamic shearing and uniaxial dynamic compression. <i>Rare Metals</i> , 2015, 34, 632-637.	7.1	8
69	Enhanced mechanical properties due to nanocrystallization by isothermal annealing in Al <sub>85</sub> Ni <sub>9</sub> Er <sub>6</sub> glassy alloy. <i>Journal of Alloys and Compounds</i> , 2017, 695, 3048-3053.	5.5	8
70	Strain induced additional growth and high integrity of TiB-whiskers in titanium matrix composite: intrinsic mechanisms and superior strengthening effects. <i>Materials Research Express</i> , 2019, 6, 126519.	1.6	8
71	Two-dimensional lamellar stacked (NH <sub>4</sub> ) <sub>0.8</sub> V <sub>3</sub> O <sub>7</sub> ·3.5H <sub>2</sub> O: A promising material with high dielectric properties and microwave absorption performance. <i>Applied Surface Science</i> , 2020, 509, 145079.	6.1	8
72	Evolution of microstructures and mechanical properties with tempering temperature of a pearlitic quenched and tempered steel. <i>Journal of Iron and Steel Research International</i> , 2022, 29, 1393-1403.	2.8	8

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73	Machine learning correlated with phenomenological mode unlocks the vast compositional space of eutectics of multi-principal element alloys. <i>Materials and Design</i> , 2022, 219, 110795.	7.0	8
74	Effect of Temperature on the Dynamic Mechanical Behaviors of Zr-Based Metallic Glass Reinforced Porous Tungsten Matrix Composite. <i>Advanced Engineering Materials</i> , 2012, 14, 439-444.	3.5	7
75	Effect of the metallic glass volume fraction on the mechanical properties of Zr-based metallic glass reinforced with porous W composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 561, 152-158.	5.6	7
76	A rapid route for synthesizing Ti-(AlxTi <sub>y</sub> /UFG Al) core-multishell structured particles reinforced Al matrix composite with promising mechanical properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 721, 61-64.	5.6	7
77	Bimodal grain structure effect on the static and dynamic mechanical properties of transparent polycrystalline magnesium aluminate (spinel). <i>Ceramics International</i> , 2019, 45, 20362-20367.	4.8	7
78	Microstructure and mechanical properties of a novel high-density steel having high tungsten content. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 824, 141797.	5.6	7
79	Characterization of highly (117)-oriented Bi <sub>3.25</sub> La <sub>0.75</sub> Ti <sub>3</sub> O <sub>12</sub> thin films prepared by rf-magnetron sputtering technique. <i>Solid State Communications</i> , 2018, 278, 31-35.	1.9	6
80	Phase Diagram of Sub-€GHz Electric-Field-Induced Polarization Oscillation. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100416.	2.4	6
81	Effect of particle size on dynamic mechanical behaviors of W particles/Zr-based bulk metallic glass composites. <i>Journal of Alloys and Compounds</i> , 2021, 885, 160545.	5.5	6
82	Microstructures and mechanical properties of FeCoNi(MoW) high-entropy alloys. <i>Materials Letters</i> , 2022, 308, 131250.	2.6	6
83	Factors affecting the mechanical properties of ultra-high-strength bainitic steel containing W and 0.33 mass% C. <i>Journal of Iron and Steel Research International</i> , 2016, 23, 289-296.	2.8	5
84	Simultaneously improved strength and toughness of hot-rolled brick-and-mortar TiNi/Ti <sub>2</sub> Ni intermetallic composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 815, 141302.	5.6	5
85	Lamellar Pearlite as an Initial Microstructure for Austenite Reversion Treatment. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 1330-1339.	2.5	5
86	A rapid route to improve the mechanical properties of the aged high Co-Ni steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 834, 142612.	5.6	5
87	Deformation and fracture mechanism of Ti-6Al-4V target at high and hyper velocity impact. <i>International Journal of Impact Engineering</i> , 2022, 169, 104312.	5.0	5
88	Enhancement of La addition on glass forming ability and thermal stability of Al <sub>85</sub> Ni <sub>7</sub> Er <sub>8</sub> xLa <sub>x</sub> (x =) Tj ETQq0 Q,0 rgBT /Qverlock 10	3.1	4
89	Preparation and Dynamic Mechanical Properties at Elevated Temperatures of a Tungsten/Glass Composite. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 1040-1046.	2.5	4
90	The response of yttrium aluminum garnet (YAG) grains and grain boundaries to nanoindentation. <i>Journal of Materials Science</i> , 2018, 53, 16198-16206.	3.7	4

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91	Static recrystallization of transparent polycrystalline yttrium aluminum garnet (YAG). Scripta Materialia, 2019, 173, 37-40.	5.2	4
92	Corrosion behaviour of NiCrFeAl-hBN seal coatings in oxidation environments at a high temperature. Rare Metals, 2021, 40, 212-218.	7.1	4
93	Achieving high performance in (NiTi <sub>2</sub> + TiC)/Ti composites with network architecture via reaction interface design. Journal of Alloys and Compounds, 2022, 925, 166230.	5.5	4
94	Microstructures and mechanical properties of bulk nanocrystalline silver fabricated by spark plasma sintering. Journal of Materials Research, 2016, 31, 2223-2232.	2.6	3
95	Ballistic performance and damage characteristics of chemical vapor infiltration quasi 3D-Cf/SiC composites. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 118-122.	1.0	3
96	Preparation and properties of W-Cu-Zn alloy with low W-W contiguity. Rare Metals, 2016, 35, 242-248.	7.1	3
97	Effect of prestrain on tensile property of TiNi/Mg composite. Materials Science and Technology, 2019, 35, 2243-2251.	1.6	3
98	An Evaluation of the Microstructure and Microhardness in an Al-Zn-Mg Alloy Processed by ECAP and Post-ECAP Heat Treatments. Advanced Engineering Materials, 2020, 22, 1901040.	3.5	3
99	Achieving an excellent combination of strength and plasticity in a low carbon steel through dynamic plastic deformation and subsequent annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 842, 143051.	5.6	3
100	Effect of tungsten content on dynamic compressive properties of borosilicate glass/tungsten composites at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 604-609.	5.6	2
101	Crystallization evolution and ferroelectric behavior of Bi <sub>3.25</sub> La <sub>0.75</sub> Ti <sub>3</sub> O <sub>12</sub> -based thin films prepared by rf-magnetron sputtering. Journal of Materials Science: Materials in Electronics, 2019, 30, 8974-8979.	2.2	2
102	Microstructure and mechanical properties of a Cr-Ni-W-Mo steel processed by thermo-mechanical controlled processing. Journal of Iron and Steel Research International, 2021, 28, 713-721.	2.8	2
103	Processing, microstructure and mechanical properties of Ni <sub>1.5</sub> CoFeCu <sub>0.8</sub> Al <sub>0.2</sub> V <sub>0.5</sub> high entropy alloy matrix composites reinforced by in-situ synthesized vanadium carbides. Materials Chemistry and Physics, 2021, 271, 124934.	4.0	2
104	Structural designation and mechanical properties of TiNi/Ti <sub>2</sub> Ni laminated composites. Journal of Physics: Conference Series, 2020, 1507, 062010.	0.4	1
105	High-temperature damage-tolerance of a hot-rolled brick-and-mortar Ti <sub>2</sub> Ni/TiNi composite. Materials Letters, 2022, 323, 132555.	2.6	1
106	Failure Mode of Ductile Hole Formation in Thick Ti-6Al-4V Targets Having Equiaxed and Lamellar Microstructures. , 2018, , 493-504.		0
107	Tensile properties of tungsten/glass composites at elevated temperatures. Materials Chemistry and Physics, 2021, 259, 124012.	4.0	0