

Nai-fei Ren

List of Publications by Year in descending order

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112
papers

1,524
citations

361045

20
h-index

433756

31
g-index

113
all docs

113
docs citations

113
times ranked

1404
citing authors

#	ARTICLE	IF	CITATIONS
1	Femtosecond pulsed laser textured titanium surfaces with stable superhydrophilicity and superhydrophobicity. Applied Surface Science, 2016, 389, 585-593.	3.1	114
2	Room temperature photoluminescence properties of CuO nanowire arrays. Optical Materials, 2015, 42, 544-547.	1.7	76
3	Broadband visible-light absorber via hybridization of propagating surface plasmon. Optics Letters, 2016, 41, 1965.	1.7	65
4	Ag nanoparticles decorated CuO nanowire arrays for efficient plasmon enhanced photoelectrochemical water splitting. Chemical Physics Letters, 2014, 609, 59-64.	1.2	47
5	Enhancing optical and electrical properties of Al-doped ZnO coated polyethylene terephthalate substrates by laser annealing using overlap rate controlling strategy. Ceramics International, 2016, 42, 7246-7252.	2.3	40
6	Comparison of the simulation and experimental of hole characteristics during nanosecond-pulsed laser drilling of thin titanium sheets. International Journal of Advanced Manufacturing Technology, 2015, 76, 735-743.	1.5	37
7	Superhydrophobic and anti-reflective ZnO nanorod-coated FTO transparent conductive thin films prepared by a three-step method. Journal of Alloys and Compounds, 2016, 674, 368-375.	2.8	36
8	Surface morphology and photoelectric properties of fluorine-doped tin oxide thin films irradiated with 532nm nanosecond laser. Ceramics International, 2014, 40, 1627-1633.	2.3	35
9	Influence of ultrasonic vibration on percussion drilling performance for millisecond pulsed Nd:YAG laser. Optics and Laser Technology, 2018, 104, 133-139.	2.2	30
10	Introduction of Ag nanoparticles and AZO layer to prepare AZO/Ag/FTO trilayer films with high overall photoelectric properties. Ceramics International, 2014, 40, 8693-8699.	2.3	29
11	Water-assisted femtosecond laser drilling of alumina ceramics. Ceramics International, 2021, 47, 11465-11473.	2.3	29
12	Improvement in overall photoelectric properties of Ag/FTO bilayer thin films using furnace/laser dual annealing. Materials Letters, 2014, 116, 405-407.	1.3	28
13	Ultrasonic-vibration-assisted laser annealing of fluorine-doped tin oxide thin films for improving optical and electrical properties: Overlapping rate optimization. Ceramics International, 2018, 44, 22225-22234.	2.3	27
14	Analysis for effects of ultrasonic power on ultrasonic vibration-assisted single-pulse laser drilling. Optics and Lasers in Engineering, 2018, 110, 279-287.	2.0	26
15	Influence of Al/Cu thickness ratio and deposition sequence on photoelectric property of ZnO/Al/Cu/ZnO multilayer film on PET substrate prepared by RF magnetron sputtering. Materials Science in Semiconductor Processing, 2019, 91, 73-80.	1.9	26
16	Effects of Ga ion-beam irradiation on monolayer graphene. Applied Physics Letters, 2013, 103, .	1.5	23
17	Parameter optimization in femtosecond pulsed laser etching of fluorine-doped tin oxide films. Optics and Laser Technology, 2019, 116, 162-170.	2.2	23
18	Performance optimization of SnO ₂ :F thin films under quasi-vacuum laser annealing with covering a transparent PET sheet: A study using processing map. Applied Surface Science, 2020, 509, 145334.	3.1	22

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19	Morphology and wettability of ZnO nanostructures prepared by hydrothermal method on various buffer layers. <i>Applied Surface Science</i> , 2013, 286, 391-396.	3.1	21
20	Monitoring and analysis of millisecond laser drilling process and performance with and without longitudinal magnetic assistance and/or assist gas. <i>Journal of Manufacturing Processes</i> , 2019, 48, 297-312.	2.8	21
21	Effects of BN layer on photoelectric properties and stability of flexible Al/Cu/ZnO multilayer thin film. <i>Ceramics International</i> , 2020, 46, 14686-14696.	2.3	21
22	Experimental characterization and real-time monitoring for laser percussion drilling in titanium alloy using transverse electric field assistance and/or lateral air blowing. <i>Journal of Manufacturing Processes</i> , 2021, 62, 845-858.	2.8	21
23	Improving the performance of nickel-coated fluorine-doped tin oxide thin films by magnetic-field-assisted laser annealing. <i>Applied Surface Science</i> , 2015, 351, 113-118.	3.1	20
24	Effect of water-based ultrasonic vibration on the quality of laser trepanned microholes in nickel super-alloy workpieces. <i>Journal of Materials Processing Technology</i> , 2019, 272, 170-183.	3.1	20
25	Titanium dioxide-coated fluorine-doped tin oxide thin films for improving overall photoelectric property. <i>Applied Surface Science</i> , 2014, 290, 80-85.	3.1	19
26	CuO/ZnO core/shell nanowire arrays and their photovoltaics application. <i>Materials Letters</i> , 2014, 132, 409-412.	1.3	19
27	Performance optimization of fluorine-doped tin oxide thin films by introducing ultrasonic vibration during laser annealing. <i>Ceramics International</i> , 2017, 43, 7329-7337.	2.3	19
28	Effects of ultrasonic assistance on microhole drilling based on Nd:YAG laser trepanning. <i>Optics and Laser Technology</i> , 2018, 106, 451-460.	2.2	19
29	Investigating the effects of microstructure on optical properties of different kinds of polysilicon thin films. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2015, 379, 1153-1160.	0.9	18
30	Surface morphology and photoelectric properties of FTO ceramic thin films under a simple transparent cover-assisted laser annealing. <i>Materials Research Bulletin</i> , 2018, 108, 151-155.	2.7	18
31	Influences of ultrasonic vibration on morphology and photoelectric properties of F-doped SnO ₂ thin films during laser annealing. <i>Applied Surface Science</i> , 2018, 458, 940-948.	3.1	18
32	Experimental investigation on effects of water-based ultrasonic vibrations, transverse magnetic field and water temperatures on percussion laser drilling performance. <i>Optics and Laser Technology</i> , 2019, 112, 395-408.	2.2	18
33	Simulation and experimental studies on process parameters, microstructure and mechanical properties of selective laser melting of stainless steel 316L. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	0.8	18
34	Effect of Ag layer thickness and scan line spacing during laser annealing of Ag/F-doped SnO ₂ bilayer composite thin films under ultrasonic vibration assistance. <i>Journal of Alloys and Compounds</i> , 2020, 829, 154504.	2.8	17
35	Reversible wettability control of ZnO thin films synthesized by hydrothermal process on different buffer layers. <i>Materials Letters</i> , 2013, 110, 160-163.	1.3	16
36	Two-step preparation of laser-textured Ni/FTO bilayer composite films with high photoelectric properties. <i>Journal of Alloys and Compounds</i> , 2015, 640, 376-382.	2.8	16

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37	Initial dislocation density effect on strain hardening in FCC aluminium alloy under laser shock peening. <i>Philosophical Magazine</i> , 2017, 97, 917-929.	0.7	16
38	Effect of Annealing on the Morphology, Structure and Photoelectric Properties of AZO/Pt/FTO Trilayer Films. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 281-288.	1.5	15
39	Selective laser ablation and patterning on Ag thin films with width and depth control. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 4943-4955.	1.1	14
40	Laser drilling in nickel super-alloy sheets with and without ultrasonic assistance characterized by transient in-process detection with indirect characterization after hole-drilling. <i>Optics and Laser Technology</i> , 2021, 134, 106559.	2.2	14
41	A comparative study of different M(M = Al, Ag, Cu)/FTO bilayer composite films irradiated with nanosecond pulsed laser. <i>Journal of Alloys and Compounds</i> , 2014, 617, 915-920.	2.8	13
42	Laser ablation processing of zinc sheets in hydrogen peroxide solution for preparing hydrophobic microstructured surfaces. <i>Materials Letters</i> , 2016, 164, 384-387.	1.3	13
43	Influence of annealing temperature on formation and photoelectric properties of AZO nanosheet-coated FTO-based films. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 4706-4712.	1.1	13
44	Femtosecond laser layered ring trepanning of stainless steel sheets with and without transverse magnetic assistance. <i>Optics and Laser Technology</i> , 2020, 129, 106231.	2.2	13
45	Improving optical and electrical performances of aluminum-doped zinc oxide thin films with laser-etched grating structures. <i>Ceramics International</i> , 2021, 47, 7994-8003.	2.3	13
46	In-situ nitriding on the textured titanium alloy using femtosecond laser. <i>Journal of Materials Research and Technology</i> , 2022, 19, 466-471.	2.6	13
47	Simulation of simultaneous measurement for red blood cell thickness and refractive index. <i>Optics and Lasers in Engineering</i> , 2012, 50, 154-158.	2.0	12
48	Investigating the nano-tribological properties of chemical vapor deposition-grown single layer graphene on SiO ₂ substrates annealed in ambient air. <i>RSC Advances</i> , 2015, 5, 10058-10064.	1.7	12
49	Design and optimization of fundamental mode filters based on long-period fiber gratings. <i>Optical Fiber Technology</i> , 2016, 30, 89-94.	1.4	12
50	Comparison of percussion laser drilling quality with and without water-based ultrasonic assistance. <i>Journal of Manufacturing Processes</i> , 2018, 36, 175-180.	2.8	12
51	Magnet-assisted laser hole-cutting in magnesium alloys with and without water immersion. <i>Journal of Manufacturing Processes</i> , 2021, 61, 539-560.	2.8	12
52	Femtosecond laser selective ablation of Cu/Ag double-layer metal films for fabricating high-performance mesh-type transparent conductive electrodes and heaters. <i>Optics Communications</i> , 2021, 483, 126661.	1.0	12
53	Laser-assisted preparation and photoelectric properties of grating-structured Pt/FTO thin films. <i>Applied Surface Science</i> , 2014, 314, 208-214.	3.1	11
54	Surface modification of multilayer graphene using Ga ion irradiation. <i>Journal of Applied Physics</i> , 2015, 117, 165303.	1.1	11

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55	Polarization-dependent fluorescence of CdSe/ZnS quantum dots coupling to a single gold-silver alloy nanotube. <i>Journal of Alloys and Compounds</i> , 2018, 731, 753-759.	2.8	11
56	An efficient tapered tool having multiple blades for manufacturing cylindrical gears with power skiving. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 102, 2823-2832.	1.5	11
57	Effects of silicon dioxide surface roughness on Raman characteristics and mechanical properties of graphene. <i>RSC Advances</i> , 2014, 4, 55087-55093.	1.7	10
58	Phase field simulation of dendritic growth of copper films irradiated by ultrashort laser pulses. <i>Computational Materials Science</i> , 2018, 148, 60-68.	1.4	10
59	Improving edge quality and optical transmittance of Ag films on glass substrates by selective nanosecond pulsed laser ablation using various scanning methods. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 13729-13739.	1.1	10
60	Photoelectric property enhancement of Ag/FTO thin films by fabricating antireflection grating structures using ultrasonic-vibration-assisted laser irradiation. <i>Applied Surface Science</i> , 2021, 541, 148449.	3.1	10
61	Ni/FTO bilayer thin films with high photoelectric properties optimized by magnetic-field-assisted laser annealing. <i>Materials Letters</i> , 2015, 140, 75-78.	1.3	9
62	Broadening of absorption band by coupled gap plasmon resonances in a near-infrared metamaterial absorber. <i>Applied Physics Express</i> , 2016, 9, 072001.	1.1	9
63	Morphology, structure and photoelectric properties of F-doped SnO ₂ films under flexible PET mask reinforced laser annealing. <i>Materials Science in Semiconductor Processing</i> , 2021, 131, 105853.	1.9	9
64	Water-induced effect on femtosecond laser layered ring trepanning in silicon carbide ceramic sheets using low-to-high pulse repetition rate. <i>Optics Communications</i> , 2021, 496, 127040.	1.0	9
65	Facile synthesis of Co ₂ P via the reduction of phosphate with KBH ₄ for nickel-based rechargeable batteries. <i>Journal of Alloys and Compounds</i> , 2015, 623, 140-145.	2.8	8
66	Experimental investigation of femtosecond laser through-hole drilling of stainless steel with and without transverse magnetic assistance. <i>Applied Optics</i> , 2021, 60, 1399.	0.9	8
67	Fabrication of metal mesh flexible transparent electrodes and heaters by a cost-effective method based on ultrafast laser direct writing. <i>Optics and Laser Technology</i> , 2021, 138, 106867.	2.2	8
68	Dual-medium quantitative measurement simulation on cells. <i>Applied Optics</i> , 2011, 50, 6440.	2.1	7
69	Hot spot assisted blinking suppression of CdSe quantum dots. <i>Chemical Physics Letters</i> , 2016, 652, 167-171.	1.2	7
70	Sub-nanometer linewidth perfect absorption in visible band induced by Bloch surface wave. <i>Optical Materials</i> , 2016, 62, 261-266.	1.7	7
71	Study on tooth profile error of cylindrical gears manufactured by flexible free-form milling. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 103, 4443-4451.	1.5	7
72	Factors influencing the tensile strength of carbon fiber reinforced plastic laminates for laser machining method and the underlined mechanisms. <i>Journal of Laser Applications</i> , 2020, 32, .	0.8	7

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73	Manipulation of transport hysteresis on graphene field effect transistors with Ga ion irradiation. Applied Physics Letters, 2014, 105, 133506.	1.5	6
74	A facile of route of synthesizing Fe doped amorphous SiO ₂ film-containing crystal TiO ₂ on carbon steel by PEO. International Journal of Hydrogen Energy, 2016, 41, 15710-15716.	3.8	6
75	Performance and breakdown behavior of graphene field-effect transistors with thin gate oxides. Journal of Micromechanics and Microengineering, 2014, 24, 045016.	1.5	5
76	Reducing the pump power of optically controlled terahertz metamaterial via tailoring the resistance of the silicon gap region. Journal of Optics (United Kingdom), 2015, 17, 105108.	1.0	5
77	Preparation and Photoelectric Properties of Patterned Ag Nanoparticles on FTO/Glass Substrate by Laser Etching and Driving Layer Strategy. Acta Metallurgica Sinica (English Letters), 2021, 34, 973-985.	1.5	5
78	Ultrafast laser direct writing on PVP/FTO/Glass substrates to fabricate Ag mesh transparent conductive films. Ceramics International, 2021, 47, 14087-14096.	2.3	5
79	Transient thermal analysis for circular laser hole-cutting in stable stainless steel sheets using a novel rotational pulsed-laser heat source model. Optics and Laser Technology, 2021, 141, 107041.	2.2	5
80	Dynamic thermal response of aluminum films induced by femtosecond-pulsed lasers with temperature dependent optical properties. Optik, 2017, 142, 218-225.	1.4	4
81	Analytical model of terahertz metasurface for enhanced amplitude modulation. Journal Physics D: Applied Physics, 2018, 51, 345101.	1.3	4
82	Influence of sensitive pose errors on tooth deviation of cylindrical gear in power skiving. Advances in Mechanical Engineering, 2019, 11, 168781401984375.	0.8	4
83	Structure disorder degree of polysilicon thin films grown by different processing: Constant C from Raman spectroscopy. Journal of Applied Physics, 2013, 114, .	1.1	3
84	Influence of assist gases on pulsed laser drilling of nickel-based superalloy. , 2017, , .		3
85	A Condition-Based Maintenance Policy (CBM) of Repairable Multi-Component Deteriorating Systems Based on Quality Information. International Journal of Reliability, Quality and Safety Engineering, 2020, 27, 2050002.	0.4	3
86	Preparation and property optimization of silver-embedded FTO transparent conductive thin films by laser etching and coating AZO layer. Journal of Materials Science: Materials in Electronics, 2021, 32, 10644-10661.	1.1	3
87	Theoretical study on femtosecond laser optical breakdown threshold in water mediated by aluminum nanoparticle coated with silica. Optics Express, 2018, 26, 34200.	1.7	3
88	Subsurface imaging by dual-medium quantitative phase measurement. Optik, 2013, 124, 4729-4733.	1.4	2
89	Relation between substructure position of phase objects in optical axial direction and phase information in quantitative phase imaging. Optics Communications, 2014, 312, 137-142.	1.0	2
90	Artificial magnetism of cross shaped metamaterial in green light frequencies. Optical Materials, 2015, 50, 123-127.	1.7	2

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91	Label-free optical biosensor based on a dual-core microstructured polymer optical fiber. <i>Optik</i> , 2015, 126, 2930-2933.	1.4	2
92	Real-time observation with metallurgical examination for laser percussion drilling in stainless steel sheets using simultaneous magnetic-ultrasonic assistance. <i>Optics Communications</i> , 2021, 493, 126869.	1.0	2
93	Systematic Characterization of Micro Holes on Super Alloy Processed by Millisecond Pulsed Nd:YAG Laser. <i>Journal of Nanoelectronics and Optoelectronics</i> , 2017, 12, 480-489.	0.1	2
94	Ultrafast dynamics in NiFe alloy thin films by two times of transient reflection. <i>Optik</i> , 2013, 124, 4667-4669.	1.4	1
95	SUNKEN HOLLOW CARBON SPHERES SUPPORTED Pt ELECTROCATALYST FOR EFFICIENT METHANOL OXIDATION AND OXYGEN REDUCTION REACTION. <i>Nano</i> , 2014, 09, 1450079.	0.5	1
96	The measurement and analysis of the nonequilibrium heat transport time of the electrons in the Co, Cr and Ag three kinds of metal films based on the transient reflection. <i>Optik</i> , 2015, 126, 2616-2618.	1.4	1
97	Mode characteristics of few-mode optical fibers with assistant cores. <i>Optical Engineering</i> , 2015, 54, 106107.	0.5	1
98	Reliability analysis of crankshaft for high-speed punch based on Monte-Carlo method. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 250, 012063.	0.3	1
99	Reliability optimization of crankshaft for high-speed punch based on genetic algorithm method. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 250, 012065.	0.3	1
100	Microstructure Comparative Investigation of Deep Hole in Super Alloy by Trepanning and Percussion Laser Processing. <i>Nanoscience and Nanotechnology Letters</i> , 2017, 9, 407-415.	0.4	1
101	Characterization of micro hole on super alloy GH4037 and stainless steel 304 by millisecond-pulsed Nd:YAG laser processing. <i>Materials Express</i> , 2021, 11, 1975-1987.	0.2	1
102	Effects of position, thickness, and annealing temperature of Ag buffer layer on the shape of ZnO nanocrystals grown by a simple hydrothermal process. <i>Journal of Materials Research</i> , 2013, 28, 3384-3393.	1.2	0
103	Control of the distribution of surface plasmon local field by altering the surrounding material. <i>Optik</i> , 2014, 125, 6810-6813.	1.4	0
104	Properties of the fundamental TM waveguide mode in the narrow metal/dielectric/metal waveguide. <i>Optik</i> , 2015, 126, 630-634.	1.4	0
105	Ultrasound-assisted pulsed laser drilling for fabricating high quality microholes. , 2017, , .		0
106	Investigations on Reliability Growth for High-Speed Punch Based on Whole Life Cycle. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 250, 012064.	0.3	0
107	Teaching reform and assessment system reconstruction of engineering professional courses based on CMPFM. , 2018, , .		0
108	The influence of illumination on two-photon absorption of quantum dots. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2018, 27, 1850031.	1.1	0

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109	Shockwave propagation and pressure in aluminum films induced by hot-electron-blast during femtosecond-pulsed laser irradiation. <i>Optik</i> , 2018, 172, 137-143.	1.4	0
110	Condition-Based Maintenance Strategy for Stochastic Degradation Systems Considering Spare Parts. , 2019, , .		0
111	The effect of structural-acoustic coupling on the sound field in a trapezoidal enclosure. <i>Noise Control Engineering Journal</i> , 2019, 67, 180-189.	0.2	0
112	Study on the mechanism of a femtosecond laser-induced breakdown of the deposited substrate mediated by aluminum nanoparticles in a vacuum. <i>Optical Materials Express</i> , 2020, 10, 3160.	1.6	0