Jiâ€āħ Duan

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Femtosecond laser induced robust periodic nanoripple structured mesh for highly efficient oil–water separation. Nanoscale, 2017, 9, 14229-14235.	2.8	305
2	A simple way to achieve bioinspired hybrid wettability surface with micro/nanopatterns for efficient fog collection. Nanoscale, 2017, 9, 14620-14626.	2.8	259
3	Solar-driven thermal-wind synergistic effect on laser-textured superhydrophilic copper foam architectures for ultrahigh efficient vapor generation. Applied Physics Letters, 2021, 118, .	1.5	123
4	Recent advances in femtosecond laser-structured Janus membranes with asymmetric surface wettability. Nanoscale, 2021, 13, 2209-2226.	2.8	120
5	Ultrafast Achievement of a Superhydrophilic/Hydrophobic Janus Foam by Femtosecond Laser Ablation for Directional Water Transport and Efficient Fog Harvesting. ACS Applied Materials & Interfaces, 2018, 10, 31433-31440.	4.0	104
6	Ultrafast nano-structuring of superwetting Ti foam with robust antifouling and stability towards efficient oil-in-water emulsion separation. Nanoscale, 2019, 11, 17607-17614.	2.8	104
7	Robust laser-structured asymmetrical PTFE mesh for underwater directional transportation and continuous collection of gas bubbles. Applied Physics Letters, 2018, 112, .	1.5	99
8	Under-oil self-driven and directional transport of water on a femtosecond laser-processed superhydrophilic geometry-gradient structure. Nanoscale, 2020, 12, 4077-4084.	2.8	90
9	Robust Hierarchical Porous PTFE Film Fabricated via Femtosecond Laser for Self-Cleaning Passive Cooling. Nano Letters, 2021, 21, 4209-4216.	4.5	77
10	A hierarchical superaerophilic cone: Robust spontaneous and directional transport of gas bubbles. Applied Physics Letters, 2018, 113, .	1.5	76
11	Femtosecond laser structuring of Janus foam: Water spontaneous antigravity unidirectional penetration and pumping. Applied Physics Letters, 2018, 113, .	1.5	65
12	Highly sensitive refractive index fiber inline Mach–Zehnder interferometer fabricated by femtosecond laser micromachining and chemical etching. Optics and Laser Technology, 2016, 77, 11-15.	2.2	57
13	Microstructural characteristics of Au/Al bonded interfaces. Materials Characterization, 2007, 58, 103-107.	1.9	56
14	A Novel High-Speed Jet Dispenser Driven by Double Piezoelectric Stacks. IEEE Transactions on Industrial Electronics, 2017, 64, 412-419.	5.2	52
15	Femtosecond laser fabrication of shape-gradient platform: Underwater bubbles continuous self-driven and unidirectional transportation. Applied Surface Science, 2019, 471, 999-1004.	3.1	51
16	Laser Fabrication of Bioinspired Gradient Surfaces for Wettability Applications. Advanced Materials Interfaces, 2021, 8, 2001610.	1.9	48
17	Advances in Laser Drilling of Structural Ceramics. Nanomaterials, 2022, 12, 230.	1.9	48
18	Structural Design and Control of a Small-MRF Damper Under 50 N Soft-Landing Applications. IEEE Transactions on Industrial Informatics, 2015, 11, 612-619.	7.2	47

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19	Formation of superwetting surface with line-patterned nanostructure on sapphire induced by femtosecond laser. Applied Physics A: Materials Science and Processing, 2015, 119, 69-74.	1.1	45
20	A robust high refractive index sensitivity fiber Mach–Zehnder interferometer fabricated by femtosecond laser machining and chemical etching. Sensors and Actuators A: Physical, 2015, 230, 111-116.	2.0	44
21	Tailoring micro/nanostructured porous polytetrafluoroethylene surfaces for dual-reversible transition of wettability and transmittance. Chemical Engineering Journal, 2022, 434, 134756.	6.6	43
22	Femtosecond laser induced robust Ti foam based evaporator for efficient solar desalination. Journal of Materials Chemistry A, 2019, 7, 8361-8367.	5.2	42
23	A Novel Strain Sensor with Large Measurement Range Based on All Fiber Mach-Zehnder Interferometer. Sensors, 2018, 18, 1549.	2.1	40
24	A new geometric error modeling approach for multi-axis system based on stream of variation theory. International Journal of Machine Tools and Manufacture, 2015, 92, 41-51.	6.2	39
25	A systematic approach on analyzing the relationship between straightness & angular errors and guideway surface in precise linear stage. International Journal of Machine Tools and Manufacture, 2017, 120, 12-19.	6.2	39
26	Superamphiphobic Surfaces with Controllable Adhesion Fabricated by Femtosecond Laser Bessel Beam on PTFE. Advanced Materials Interfaces, 2019, 6, 1900550.	1.9	38
27	Broadband and wide-angle antireflective subwavelength microstructures on zinc sulfide fabricated by femtosecond laser parallel multi-beam. Optics Express, 2018, 26, 34016.	1.7	31
28	Multifunctional micro/nano-patterned PTFE near-superamphiphobic surfaces achieved by a femtosecond laser. Surface and Coatings Technology, 2018, 345, 53-60.	2.2	26
29	Effects of TiC addition on microstructure, microhardness and wear resistance of 18Ni300 maraging steel by direct laser deposition. Journal of Materials Processing Technology, 2021, 296, 117213.	3.1	26
30	Femtosecond laser-induced periodic surface structural formation on sapphire with nanolayered gold coating. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	25
31	Design and Analysis of a High Acceleration Rotary-Linear Voice Coil Motor. IEEE Transactions on Magnetics, 2017, 53, 1-9.	1.2	25
32	Research on Permanent Magnet Linear Synchronous Motors With Ring Windings for Electromagnetic Launch System. IEEE Transactions on Plasma Science, 2017, 45, 1161-1167.	0.6	25
33	Simultaneous Strain and Temperature Sensor Based on a Fiber Mach-Zehnder Interferometer Coated with Pt by Iron Sputtering Technology. Materials, 2018, 11, 1535.	1.3	25
34	The Study on Mechanical Strength of Titanium-Aluminum Dissimilar Butt Joints by Laser Welding-Brazing Process. Materials, 2019, 12, 712.	1.3	25
35	Spatial light modulated femtosecond laser ablated durable superhydrophobic copper mesh for oil-water separation and self-cleaning. Surface and Coatings Technology, 2020, 402, 126254.	2.2	25
36	Electromagnetic Design of a Novel Linear Maglev Transportation Platform With Finite-Element Analysis. IEEE Transactions on Magnetics, 2011, 47, 260-263.	1.2	24

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37	Flow Channel Influence of a Collision-Based Piezoelectric Jetting Dispenser on Jet Performance. Sensors, 2018, 18, 1270.	2.1	23
38	Enhancement of the Conductivity and Uniformity of Silver Nanowire Flexible Transparent Conductive Films by Femtosecond Laser-Induced Nanowelding. Nanomaterials, 2019, 9, 673.	1.9	23
39	Review of the technology of a single mode fiber coupling to a laser diode. Optical Fiber Technology, 2020, 55, 102097.	1.4	23
40	Highly Sensitive Strain Sensor Based on a Novel Mach-Zehnder Interferometer with TCF-PCF Structure. Sensors, 2018, 18, 278.	2.1	22
41	Improved thermal characteristics of a novel magnetostrictive jet dispenser using water-cooling approach. Applied Thermal Engineering, 2017, 112, 1-6.	3.0	21
42	Adjustable annular rings of periodic surface structures induced by spatially shaped femtosecond laser. Laser Physics Letters, 2015, 12, 056001.	0.6	20
43	Microcavity Mach–Zehnder Interferometer Sensors for Refractive Index Sensing. IEEE Photonics Technology Letters, 2016, 28, 2285-2288.	1.3	20
44	Highly sensitive refractive index sensor based on novel Mach–Zehnder interferometer with multimode fiber–thin core fiber–multimode fiber structure. Japanese Journal of Applied Physics, 2018, 57, 092501.	0.8	20
45	Enhanced light extraction of light-emitting diodes with micro patterns by femtosecond laser micromachining for visible light communication. Optics Letters, 2020, 45, 6707.	1.7	20
46	Adaptive control using interval Type-2 fuzzy logic for uncertain nonlinear systems. Journal of Central South University, 2011, 18, 760-766.	1.2	19
47	Coupling efficiency between ball lens capped laser diode chip and single mode fiber. Optik, 2018, 157, 497-502.	1.4	18
48	Effect of double-pulse-laser polarization and time delay on laser-assisted etching of fused silica. Journal Physics D: Applied Physics, 2017, 50, 465306.	1.3	17
49	Substrate-independent, switchable bubble wettability surfaces induced by ultrasonic treatment. Soft Matter, 2019, 15, 7398-7403.	1.2	17
50	Levitation mechanism modelling for maglev transportation system. Central South University, 2010, 17, 1230-1237.	0.5	16
51	Improvement of rear damage of thin fused silica by liquid-assisted femtosecond laser cutting. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	16
52	Investigation on Eigenfrequency of a Cylindrical Shell Resonator under Resonator-Top Trimming Methods. Sensors, 2017, 17, 2011.	2.1	15
53	Study on laser/DP-MIG hybrid welding-brazing of aluminum to Al-Si coated boron steel. Journal of Manufacturing Processes, 2021, 64, 333-340.	2.8	15
54	Welding of glasses in optical and partial-optical contact via focal position adjustment of femtosecond-laser pulses at moderately high repetition rate. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	14

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55	Simultaneous Curvature and Temperature Sensing Based on a Novel Mach-Zehnder Interferometer. Photonic Sensors, 2020, 10, 171-180.	2.5	14
56	Alignment algorithms for planar optical waveguides. Optical Engineering, 2012, 51, 103401-1.	0.5	13
57	Giant magnetostrictive material based jetting dispenser. Optik, 2015, 126, 5859-5860.	1.4	13
58	Design of the footprints of uncertainty for a class of typical interval type-2 fuzzy PI and PD controllers. ISA Transactions, 2021, 108, 1-9.	3.1	13
59	A novel levitation control strategy for a class of redundant actuation maglev system. Control Engineering Practice, 2011, 19, 1468-1478.	3.2	12
60	Chemical etching mechanism and properties of microstructures in sapphire modified by femtosecond laser. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	12
61	Design of 4-channel AWG Multiplexer/demultiplexer for CWDM system. Optik, 2020, 201, 163513.	1.4	12
62	Regulated Kalman filter based training of an interval type-2 fuzzy system and its evaluation. Engineering Applications of Artificial Intelligence, 2020, 95, 103867.	4.3	12
63	Transmission characteristics of planar optical waveguide devices on coupling interface. Optik, 2013, 124, 5274-5279.	1.4	11
64	Ablation enhancement by femtosecond laser irradiation assisted with a microtorch for microgrooves fabrication in PMMA. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	11
65	Temperature sensitivity enhancement of platinum-nanoparticle-coated long period fiber gratings fabricated by femtosecond laser. Applied Optics, 2017, 56, 6549.	0.9	11
66	Allowable aperture considerations for laser diode coupling to cylindrical lensed fiber: Efficiency computation with ABCD matrix. Optik, 2019, 185, 614-619.	1.4	11
67	Femtosecond laser manipulating underoil surface wettability for water removal from oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 125030.	2.3	11
68	Femtosecond laser fabrication of a gradient-wettability mesh for spilled oil crossflow collection. Materials Letters, 2018, 215, 272-275.	1.3	10
69	Experimental research on ultrasound-assisted underwater femtosecond laser drilling. Laser and Particle Beams, 2018, 36, 487-493.	0.4	10
70	Influence of positioning errors of optical shaping components for single emitter laser diode on beam shaping effects. Journal of Central South University, 2019, 26, 2814-2821.	1.2	10
71	Design and Analysis of a Novel Frequency Modulation Secondary for High-Speed Permanent Magnet Linear Synchronous Motor. IEEE/ASME Transactions on Mechatronics, 2022, 27, 790-799.	3.7	10
72	Review of Issues and Solutions in High-Power Semiconductor Laser Packaging Technology. Frontiers in Physics, 2021, 9, .	1.0	10

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73	Refractive index and temperature-sensing characteristics of a cladding-etched thin core fiber interferometer. AIP Advances, 2018, 8, .	0.6	9
74	Precise Dynamic Mass-Stiffness Balancing of Cylindrical Shell Vibrating Gyroscope Along Working Modal Axis. IEEE Sensors Journal, 2019, 19, 10347-10354.	2.4	9
75	The effect of micro-texture on wear resistance of WC/Co-based tools during cutting Ti-6Al-4V. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	9
76	A Six-Degree-of-Freedom Compliant Parallel Platform for Optoelectronic Packaging. IEEE Transactions on Industrial Electronics, 2021, 68, 11178-11187.	5.2	9
77	A simplified adaptive interval Type-2 fuzzy control in practical industrial application. Journal of Central South University, 2014, 21, 2693-2700.	1.2	8
78	Femtosecond laser fabrication of robust underwater superoleophobic and anti-oil surface on sapphire. AIP Advances, 2017, 7, 115224.	0.6	8
79	Optimal condition for employing an axicon-generated Bessel beam to fabricate cylindrical microlens arrays. Journal Physics D: Applied Physics, 2018, 51, 185104.	1.3	8
80	Performance Analysis of Double-Sided Permanent Magnet Linear Synchronous Motor With Quasi-Sinusoidal Ring Windings. IEEE Transactions on Energy Conversion, 2020, 35, 1465-1474.	3.7	8
81	Improved particle swarm optimization algorithm for enhanced coupling of coaxial optical communication laser. Optical Fiber Technology, 2021, 64, 102559.	1.4	8
82	Water droplet rapid spreading transport on femtosecond laser-treated photothermal and superhydrophilic surface. Optics and Laser Technology, 2021, 141, 107099.	2.2	8
83	Optimizing the efficiency of a laser diode and single-mode fiber coupling using multi-aspherical lenses. Optical Fiber Technology, 2022, 68, 102781.	1.4	8
84	Effects of AlSi12 interlayer on microstructure and mechanical properties of laser welded 5A06/Ti6Al4V joints. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 1389-1402.	1.3	7
85	Calibration of five-axis motion platform based on monocular vision. International Journal of Advanced Manufacturing Technology, 2022, 118, 3487-3496.	1.5	7
86	Interface features of ultrasonic flip chip bonding and reflow soldering in microelectronic packaging. Surface and Interface Analysis, 2007, 39, 783-786.	0.8	6
87	One-step femtosecond laser welding and internal machining of three glass substrates. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	6
88	Fabrication tolerance analysis of grating couplers between optical fibers and silicon waveguide. Optik, 2020, 201, 163490.	1.4	6
89	Design and Modeling of a Novel Permanent Magnet Width Modulation Secondary for Permanent Magnet Linear Synchronous Motor. IEEE Transactions on Industrial Electronics, 2022, 69, 2749-2758.	5.2	6
90	Numerical and experimental investigation of thermal stress distribution in laser lap welding of Ti6Al4V and 2024 alloy plates. International Journal of Advanced Manufacturing Technology, 2022, 118, 1427-1440.	1.5	6

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91	Fabrication and Sensing Application of Phase Shifted Bragg Grating Sensors. Materials, 2022, 15, 3720.	1.3	6
92	Rapid fabrication of cylindrical microlens array by shaped femtosecond laser direct writing. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	5
93	A Novel Thrust Force Test Method for a Class of Precision Noncontact Linear Motion Actuators. IEEE Transactions on Industrial Electronics, 2019, 66, 5383-5391.	5.2	5
94	Fabrication of oil–water separation copper filter by spatial light modulated femtosecond laser. Journal of Micromechanics and Microengineering, 2020, 30, 065007.	1.5	5
95	The relationship between IR characteristic peak and microstructure of the glass used as optical fiber. Central South University, 2006, 13, 238-241.	0.5	4
96	Effect of technological parameters on optical performance of fiber coupler. Central South University, 2007, 14, 370-373.	0.5	4
97	Automated visual position detection and adjustment for optical waveguide chips and optical fiber arrays. Journal of Central South University, 2015, 22, 3868-3875.	1.2	4
98	Forming mechanism of three-dimensional integral fin based on flat surface. Journal of Central South University, 2015, 22, 1660-1666.	1.2	4
99	LIPSS formed on the sidewalls of microholes in stainless steel trepanned by a circularly polarized femtosecond laser. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	4
100	Improving the Lot Fabrication Stability and Performance of Silica Optical Films during PECVD. Applied Sciences (Switzerland), 2019, 9, 785.	1.3	4
101	Online Research on Reliability of Thermal-Vibration Coupling for PLC Optical Splitters. IEEE Transactions on Device and Materials Reliability, 2020, 20, 351-357.	1.5	4
102	Influence of positioning errors on the coupling efficiency of a single emitter laser array. Optik, 2020, 204, 163949.	1.4	4
103	Bonding strength enhancement by Ag–Zn–Cu intermetallic compounds and microscale tapers array fabricated by femtosecond laser. Journal of Materials Science: Materials in Electronics, 2021, 32, 19543-19551.	1.1	4
104	Influences of polishing on return loss of optical fiber connectors. Central South University, 2005, 12, 320-323.	0.5	3
105	Novel manufacturing method of optical fiber coupler. Central South University, 2006, 13, 242-245.	0.5	3
106	Relationship between rheological manufacturing process and optical performance of optical fiber coupler. Central South University, 2006, 13, 175-179.	0.5	3
107	Adaptive learning with guaranteed stability for discrete-time recurrent neural networks. Central South University, 2007, 14, 685-689.	0.5	3
108	Wavelength dependent loss of splice of single-mode fibers. Journal of Central South University, 2013, 20, 1832-1837.	1.2	3

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109	Laser Structuring of Underwater Bubble-Repellent Surface. Journal of Nanoscience and Nanotechnology, 2018, 18, 8381-8385.	0.9	3
110	Reducing the adhesion effect of aluminum alloy by cutting tools with microgroove texture. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	3
111	Controlling of surface ablation threshold of fused silica by double-pulsed femtosecond laser. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	3
112	Research on drop reliability of PLC optical splitters by online test. Optik, 2020, 217, 164890.	1.4	3
113	Switchable bubble wettability copper mesh for underwater gas collection ablated by spatial modulated femtosecond laser. Surface and Coatings Technology, 2021, 418, 127241.	2.2	3
114	Automatic Planar Optical Waveguide Devices Packaging System Based on Polynomial Fitting Algorithm. Advances in Mechanical Engineering, 2013, 5, 398092.	0.8	3
115	Flexible and Precise Droplet Manipulation by a Laser-Induced Shape Temperature Field on a Lubricant-Infused Surface. Langmuir, 2022, 38, 6731-6740.	1.6	3
116	A multifunctional flexible sensor with coupling bionic microstructures inspired by nature. Journal of Materials Chemistry C, 2022, 10, 11296-11306.	2.7	3
117	Fitting methods for relaxation modulus of viscoelastic materials. Central South University, 2007, 14, 248-250.	0.5	2
118	Experimental measurement and numerical analysis of fused taper shape for optical fiber coupler. Central South University, 2007, 14, 251-254.	0.5	2
119	Ultrafast electron dynamics of a Na ₄ cluster under resonant femtosecond laser pulse train irradiation. Laser Physics, 2015, 25, 026001.	0.6	2
120	Effects of Normal-Distributed Measurement Error on Frequency Tuning for a Cylindrical Vibratory Gyroscopes. IEEE Access, 2020, 8, 97152-97163.	2.6	2
121	Influence of different fuzzy operators on analytical structure and variable gains of typical interval type-2 fuzzy PI controller. Journal of Intelligent and Fuzzy Systems, 2020, 39, 4319-4329.	0.8	2
122	Experimental Research on In Situ Uniaxial Tensile Response of Silica-Based PLC Optical Splitters. Applied Sciences (Switzerland), 2022, 12, 5778.	1.3	2
123	A new automatic alignment technology for single mode fiber-waveguide based on improved genetic algorithm. Optoelectronics Letters, 2009, 5, 165-168.	0.4	1
124	Research on ablation process of constant elastic alloy with femtosecond laser in solution medium. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	1
125	Red shift of absorption edge and band gap shrinkage in perovskite Pb(Zr0.35Ti0.65)O3 thin film from heat generation for solar cells application. Applied Physics Express, 2019, 12, 022009.	1.1	1
126	Nanostructures' difference for differing band gap materials during ultrashort double-pulse laser ablation. Photonics and Nanostructures - Fundamentals and Applications, 2019, 33, 16-20.	1.0	1

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127	Research on the influence of laser thermal characteristics on misalignment of optical components. Optik, 2021, 241, 166907.	1.4	1
128	Alignment tolerant analysis of a compact 4Â×Â25 Gbps TOSA with a thin-film filter multiplexer. Optics Communications, 2022, 507, 127549.	1.0	1
129	Sensitivity analysis and optimization of optical Y-branch structure parameters. Applied Optics, 2020, 59, 5803.	0.9	1
130	A 3-prismatic-revolute-spherical compliant parallel platform for optoelectronic packaging. Journal of Mechanical Science and Technology, 2022, 36, 2685-2694.	0.7	1
131	Structure analysis of optical fiber coupler with infrared spectrometry. Central South University, 2004, 11, 328-331.	0.5	Ο
132	Optimization of a zoom mechanism with flexible hinge for dispenser valve. , 2015, , .		0
133	Helical displacement Talbot lithography for duty cycles of periodic patterning. Journal of Optics (India), 0, , 1.	0.8	0