

# Shi-Li Shu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1380489/publications.pdf>

Version: 2024-02-01

82  
papers

1,835  
citations

270111

25  
h-index

340414

39  
g-index

82  
all docs

82  
docs citations

82  
times ranked

812  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synergistic optimization in solidification microstructure and mechanical performance of novel (TiC/N) Ti/Al composites via laser powder bed fusion manufacturing. <i>Journal of Manufacturing Processes</i> , 2022, 155, 106843.	10.784314	36
2	Effect mechanism of mono-particles or hybrid-particles on the thermophysical characteristics and mechanical properties of Cu matrix composites. <i>Ceramics International</i> , 2022, 48, 23033-23043.	2.3	10
3	Microstructure manipulation mechanism and mechanical properties improvement of H13 steel via trace nano-(TiC+TiB <sub>2</sub> ) particles. <i>Materials Characterization</i> , 2022, 188, 111924.	1.9	19
4	Microstructure manipulation and strengthening mechanism of TiAl composites reinforced by Cr solid solution and in-situ nanometer-sized TiB <sub>2</sub> particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 845, 143214.	2.6	24
5	Reaction behaviors and specific exposed crystal planes manipulation mechanism of TiC nanoparticles. <i>Journal of the American Ceramic Society</i> , 2021, 104, 2820-2835.	1.9	19
6	Interface formation and bonding control in high-volume-fraction (TiC+TiB <sub>2</sub> )/Al composites and their roles in enhancing properties. <i>Composites Part B: Engineering</i> , 2021, 209, 108605.	5.9	130
7	Enhancing strength-ductility synergy and mechanisms of Al-based composites by size-tunable in-situ TiB <sub>2</sub> particles with specific spatial distribution. <i>Composites Part B: Engineering</i> , 2021, 217, 108912.	5.9	117
8	Microstructural configuration and compressive deformation behavior of a TiAl composite reinforced by Mn and in situ Ti <sub>2</sub> AlC particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 823, 141772.	2.6	39
9	Microstructure manipulation and strengthening mechanisms of 40Cr steel via trace TiC nanoparticles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 822, 141693.	2.6	40
10	Role of trace nanoparticles in establishing fully optimized microstructure configuration of cold-rolled Al alloy. <i>Materials and Design</i> , 2021, 206, 109743.	3.3	45
11	Microstructure evolution and mechanical property enhancement of high-Cr hot work die steel manipulated by trace amounts of nano-sized TiC. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 824, 141788.	2.6	28
12	Insight into solidification microstructure control by trace TiCN+TiB <sub>2</sub> particles for yielding fine-tuned nanoprecipitates in a hypoeutectic Al-Si-Mg alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 827, 142093.	2.6	29
13	Unprecedented enhancement in strength-plasticity synergy of (TiC+Al <sub>6</sub> MoTi+Mo)/Al cermet by multiple length-scale microstructure stimulated synergistic deformation. <i>Composites Part B: Engineering</i> , 2021, 225, 109265.	5.9	41
14	Multiscale design of Al, eutectic silicon and Mg <sub>2</sub> Si phases in Al-Si-Mg alloy manipulated by in situ nanosized crystals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140627.	2.6	32
15	Simultaneously improved strength and toughness of in situ bi-phased TiB <sub>2</sub> +Ti(C,N)+Ni cermets by Mo addition. <i>Journal of Alloys and Compounds</i> , 2020, 820, 153068.	2.8	33
16	Investigation of the influences of ternary Mg addition on the solidification microstructure and mechanical properties of as-cast Al-10Si alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 798, 140247.	2.6	38
17	Strengthening mechanism of TiC/Al composites using Al-Ti-C/CNTs with doping alloying elements (Mg). <i>Journal of Manufacturing Processes</i> , 2020, 16, 106843.	2.6	16
18	Application of nanoparticles in cast steel: An overview. <i>China Foundry</i> , 2020, 17, 111-126.	0.5	23

#	ARTICLE	IF	CITATIONS
19	Processing, multiscale microstructure refinement and mechanical property enhancement of hypoeutectic Al-Si alloys via in situ bimodal-sized TiB <sub>2</sub> particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 777, 139081.	2.6	66
20	Pulse control in self-mode-locked 2.8-μm Er-doped fluoride fiber lasers. <i>Optics and Laser Technology</i> , 2020, 129, 106285.	2.2	0
21	Beam quality improvement of 1.95-μm GaSb-based broad-area self-pulsed laser by off-axis feedback. <i>Optical Engineering</i> , 2020, 59, 1.	0.5	1
22	High power femtosecond semiconductor lasers based on saw-toothed master-oscillator power-amplifier system with compressed ASE. <i>Optics Express</i> , 2020, 28, 7108.	1.7	0
23	Beam waist shrinkage of high-power broad-area diode lasers by mode tailoring. <i>Optics Express</i> , 2020, 28, 13131.	1.7	6
24	Harmonic mode-locking in an external cavity tapered diode laser with saw-toothed microstructure. <i>Applied Physics Express</i> , 2019, 12, 102011.	1.1	2
25	The Synthesis, Structure, Morphology Characterizations and Evolution Mechanisms of Nanosized Titanium Carbides and Their Further Applications. <i>Nanomaterials</i> , 2019, 9, 1152.	1.9	54
26	Near-diffraction-limited semiconductor disk lasers. <i>Optics Communications</i> , 2019, 449, 39-44.	1.0	3
27	Design of TiC nanoparticles and their morphology manipulating mechanisms by stoichiometric ratios: Experiment and first-principle calculation. <i>Materials and Design</i> , 2019, 181, 107951.	3.3	64
28	High Power (>27 W) Semiconductor Disk Laser Based on Pre-Metalized Diamond Heat-Spreader. <i>IEEE Photonics Journal</i> , 2019, 11, 1-8.	1.0	10
29	Beam Control in an Intracavity Frequency-Doubling Semiconductor Disk Laser. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1584.	1.3	1
30	Enhancing Third- and Fifth-Order Nonlinearity via Tunneling in Multiple Quantum Dots. <i>Nanomaterials</i> , 2019, 9, 423.	1.9	10
31	Efficient microstructure refinement of Al-Si-Mg alloy manipulated by nanocrystals formed by in-situ crystallization in melt. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 751, 90-98.	2.6	17
32	Parity-time symmetry in coherent asymmetric double quantum wells. <i>Scientific Reports</i> , 2019, 9, 2607.	1.6	7
33	Microstructure refinement and strengthening mechanisms of bimodal-sized and dual-phased (TiCn-Al <sub>3</sub> Ti <sub>m</sub> )/Al hybrid composites assisted ultrasonic vibration. <i>Journal of Alloys and Compounds</i> , 2019, 788, 1309-1321.	2.8	34
34	Extracting more light for vertical emission: high power continuous wave operation of 1.3-μm quantum-dot photonic-crystal surface-emitting laser based on a flat band. <i>Light: Science and Applications</i> , 2019, 8, 108.	7.7	22
35	Efficiency and Threshold Characteristics of Spectrally Beam Combined High-Power Diode Lasers. <i>IEEE Journal of Quantum Electronics</i> , 2019, 55, 1-7.	1.0	6
36	Effects of alloying elements on the phase constitution and microstructure of in situ SiC/Al composites. <i>International Journal of Modern Physics B</i> , 2019, 33, 1940048.	1.0	4

#	ARTICLE	IF	CITATIONS
37	Effects of Cu, Zn, W and Mo on the compression properties of in-situ nano-Ti <sub>5</sub> Si <sub>3</sub> /TiAl composite. International Journal of Modern Physics B, 2019, 33, 1940051.	1.0	3
38	Effect of Ta addition on the microstructures and mechanical properties of in situ bi-phase (TiB <sub>2</sub> -TiC <sub>x</sub> Ny)/(Ni-Ta) cermet. Ceramics International, 2019, 45, 4408-4417.	2.3	24
39	Loss tailoring of high-power broad-area diode lasers. Optics Letters, 2019, 44, 3562.	1.7	12
40	High-power GaSb-based microstripe broad-area lasers. Applied Physics Express, 2018, 11, 032702.	1.1	3
41	Asymmetric light diffraction of two-dimensional electromagnetically induced grating with PT symmetry in asymmetric double quantum wells. Optics Express, 2018, 26, 32918.	1.7	38
42	Going Beyond the Beam Quality Limit of Spectral Beam Combining. , 2018, , .		0
43	Microstructures and Compressive Properties of Al Matrix Composites Reinforced with Bimodal Hybrid In-Situ Nano-/Micro-Sized TiC Particles. Materials, 2018, 11, 1284.	1.3	13
44	Off-axis spectral beam combining of Bragg reflection waveguide photonic crystal diode lasers. Japanese Journal of Applied Physics, 2018, 57, 060312.	0.8	0
45	Going beyond the beam quality limit of spectral beam combining of diode lasers in a V-shaped external cavity. Optics Express, 2018, 26, 14058.	1.7	12
46	Near-diffraction-limited Bragg reflection waveguide lasers. Applied Optics, 2018, 57, F15.	0.9	4
47	High-brightness diode lasers obtained via off-axis spectral beam combining with selective feedback. Optics Express, 2018, 26, 21813.	1.7	9
48	Progress of optically pumped GaSb based semiconductor disk laser. Opto-Electronic Advances, 2018, 1, 17000301-17000309.	6.4	10
49	Beam control of high-power broad-area photonic crystal lasers using ladderlike groove structure. Applied Physics Express, 2017, 10, 062701.	1.1	4
50	Control of transient gain absorption via tunneling and incoherent pumping in triple quantum dots. Laser Physics, 2017, 27, 015203.	0.6	0
51	Heat dissipation in high-power semiconductor lasers with heat pipe cooling system. Journal of Mechanical Science and Technology, 2017, 31, 2607-2612.	0.7	21
52	Microstructures and tensile properties of nano-sized SiC p /Al-Cu composites fabricated by semisolid stirring assisted with hot extrusion. Materials Characterization, 2017, 131, 195-200.	1.9	49
53	Microstructures and Tensile Properties of Al-Cu Matrix Composites Reinforced with Nano-Sized SiCp Fabricated by Semisolid Stirring Process. Metals, 2017, 7, 49.	1.0	26
54	Fabrication and Characterization of In Situ Synthesized SiC/Al Composites by Combustion Synthesis and Hot Press Consolidation Method. Scanning, 2017, 2017, 1-11.	0.7	22

#	ARTICLE	IF	CITATIONS
55	Fabrication of TiCx-TiB2/Al Composites for Application as a Heat Sink. <i>Materials</i> , 2016, 9, 642.	1.3	31
56	Control of coherence transfer via tunneling in quadruple and multiple quantum dots. <i>Laser Physics Letters</i> , 2016, 13, 125205.	0.6	1
57	Control of lateral divergence in high-power, broad-area photonic crystal lasers. <i>Applied Physics Express</i> , 2016, 9, 072104.	1.1	7
58	Injection-insensitive lateral divergence in broad-area diode lasers achieved by spatial current modulation. <i>Applied Physics Express</i> , 2016, 9, 112102.	1.1	13
59	Tunneling-assisted coherent population transfer and creation of coherent superposition states in triple quantum dots. <i>Laser Physics Letters</i> , 2016, 13, 125203.	0.6	2
60	Low lateral divergence 2 $\frac{1}{4}$ m InGaSb/ AlGaAsSb broad-area quantum well lasers. <i>Optics Express</i> , 2016, 24, 7246.	1.7	17
61	Creation and Transfer of Coherence via Technique of Stimulated Raman Adiabatic Passage in Triple Quantum Dots. <i>Nanoscale Research Letters</i> , 2016, 11, 219.	3.1	2
62	Transient gain-absorption of the probe field in triple quantum dots coupled by double tunneling. <i>Optics Communications</i> , 2016, 368, 129-133.	1.0	4
63	Modulation of carrier dynamics and threshold characteristics in 1.3- $\frac{1}{4}$ m quantum dot photonic crystal nanocavity lasers. <i>Optics and Laser Technology</i> , 2016, 82, 10-16.	2.2	4
64	Effect of Mn, Fe and Co on the compression strength and ductility of in situ nano-sized TiB2/TiAl composites. <i>SpringerPlus</i> , 2015, 4, 784.	1.2	2
65	A Novel Approach of Using Ground CNTs as the Carbon Source to Fabricate Uniformly Distributed Nano-Sized TiCx/2009Al Composites. <i>Materials</i> , 2015, 8, 8839-8849.	1.3	21
66	Effect of Ceramic Content on the Compression Properties of TiB2-Ti2AlC/TiAl Composites. <i>Metals</i> , 2015, 5, 2200-2209.	1.0	7
67	High-Power Ultralow Divergence Edge-Emitting Diode Laser With Circular Beam. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015, 21, 343-351.	1.9	14
68	Tunneling induced transparency and giant Kerr nonlinearity in multiple quantum dot molecules. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2015, 69, 349-353.	1.3	15
69	Effect of Al addition on the microstructures and compression properties of (TiCxNy-TiB2)/Ni composites fabricated by combustion synthesis and hot press. <i>Powder Technology</i> , 2015, 286, 716-721.	2.1	11
70	Effects of Fe, Co and Ni elements on the ductility of TiAl alloy. <i>Journal of Alloys and Compounds</i> , 2014, 617, 302-305.	2.8	56
71	Effect of strain rate on the compression behavior of TiAl and TiAl-2Mn alloys fabricated by combustion synthesis and hot press consolidation. <i>Intermetallics</i> , 2013, 43, 24-28.	1.8	20
72	Effect of B4C size on the fabrication and compression properties of in situ TiB2-Ti2AlC/TiAl composites. <i>Journal of Alloys and Compounds</i> , 2013, 551, 88-91.	2.8	26

#	ARTICLE	IF	CITATIONS
73	Effect of W content on the compression properties and abrasive wear behavior of the (TiB <sub>2</sub> -TiC <sub>x</sub> Ny)/(Ni+W) composites. <i>Materials &amp; Design</i> , 2013, 45, 286-291.	5.1	14
74	Comparative study of the compression properties of TiAl matrix composites reinforced with nano-TiB <sub>2</sub> and nano-Ti <sub>5</sub> Si <sub>3</sub> particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 560, 596-600.	2.6	68
75	Study of effect of Mn addition on the mechanical properties of Ti <sub>2</sub> AlC/TiAl composites through first principles study and experimental investigation. <i>Intermetallics</i> , 2012, 28, 65-70.	1.8	32
76	Effect of Ni content on the compression properties and abrasive wear behavior of the (TiB <sub>2</sub> -TiC <sub>x</sub> Ny)/Ni composites. <i>International Journal of Refractory Metals and Hard Materials</i> , 2012, 34, 8-12.	1.7	6
77	Compression properties and abrasive wear behavior of high volume fraction TiC-TiB <sub>2</sub> /Cu composites fabricated by combustion synthesis and hot press consolidation. <i>Materials &amp; Design</i> , 2012, 40, 157-162.	5.1	37
78	Different strain-rate dependent compressive properties and work-hardening capacities of 50 vol% TiC/Al and TiB <sub>2</sub> /Al composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 538, 335-339.	2.6	13
79	Phase transitions and compression properties of Ti <sub>2</sub> AlC/TiAl composites fabricated by combustion synthesis reaction. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 539, 344-348.	2.6	48
80	Compression properties and work-hardening behavior of Ti <sub>2</sub> AlC/TiAl composites fabricated by combustion synthesis and hot press consolidation in the Ti-Al-Nb-C system. <i>Materials &amp; Design</i> , 2011, 32, 5061-5065.	5.1	34
81	High volume fraction TiC <sub>x</sub> /Al composites with good comprehensive performance fabricated by combustion synthesis and hot press consolidation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 1931-1936.	2.6	25
82	Effects of alloy elements (Mg, Zn, Sn) on the microstructures and compression properties of high-volume-fraction TiC <sub>x</sub> /Al composites. <i>Scripta Materialia</i> , 2010, 63, 1209-1211.	2.6	29