

# Sheng-Guan Qu

## List of Publications by Year in descending order

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65  
papers

1,570  
citations

516561

16  
h-index

315616

38  
g-index

65  
all docs

65  
docs citations

65  
times ranked

1751  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of ultrasonic surface rolling on microstructural evolution and fretting wear resistance of 20CrMoH steel under different quenching temperatures. <i>Materials Chemistry and Physics</i> , 2022, 288, 126362.	2.0	4
2	The Effect of Mobile Wearable Waist Assist Robot on Lower Back Pain during Lifting and Handling Tasks. <i>Mobile Networks and Applications</i> , 2021, 26, 988-996.	2.2	5
3	Rolling contact fatigue properties of ultrasonic surface rolling treated 25CrNi2MoV steel under different lubricant viscosities. <i>International Journal of Fatigue</i> , 2021, 142, 105970.	2.8	22
4	Microstructure and mechanical properties of TiAl/Ni-based superalloy joints vacuum brazed with Tiâ€“Zrâ€“Feâ€“Cuâ€“Niâ€“Coâ€“Mo filler metal. <i>Rare Metals</i> , 2021, 40, 2134-2142.	3.6	8
5	Effects of an industrial passive assistive exoskeleton on muscle activity, oxygen consumption and subjective responses during lifting tasks. <i>PLoS ONE</i> , 2021, 16, e0245629.	1.1	15
6	Research on obstacle avoidance algorithm for unmanned ground vehicle based on multi-sensor information fusion. <i>Mathematical Biosciences and Engineering</i> , 2021, 18, 1022-1039.	1.0	12
7	Research on a gait detection system and recognition algorithm for lower limb exoskeleton robot. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021, 43, 1.	0.8	13
8	Fabrication of highly dissimilar TC4/steel joint with V/Cu composite transition layer by laser melting deposition. <i>Journal of Alloys and Compounds</i> , 2021, 862, 158319.	2.8	11
9	Development of an ergonomic wearable robotic device for assisting manual workers. <i>International Journal of Advanced Robotic Systems</i> , 2021, 18, 172988142110467.	1.3	2
10	Investigation on the parameters optimization and sliding wear behaviors under starved lubrication of discrete laser surface hardened 25CrNi2MoV steel. <i>Tribology International</i> , 2021, 163, 107176.	3.0	13
11	Synergistic effects of a combined surface modification technology on rolling contact fatigue behaviors of 20CrMoH steel under different contact stresses. <i>International Journal of Fatigue</i> , 2021, 153, 106487.	2.8	16
12	Concurrent Hardening and Toughening of a Tungsten Heavy Alloy via a Novel Carburizing Cyclic Heat Treatment. <i>Advanced Engineering Materials</i> , 2021, 23, 2001283.	1.6	5
13	Effect of ultrasonic nanocrystalline surface modification process on fretting wear behavior of laser surface textured 20CrMoH steel. <i>Surface and Coatings Technology</i> , 2021, 427, 127827.	2.2	9
14	A comparison of wear behaviour of heat-resistant steel engine valves and TiAl engine valves. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2020, 234, 1549-1562.	1.0	5
15	M3B2-type borides effect on the wide gap brazing of K417G alloy with mixed powder. <i>Journal of Alloys and Compounds</i> , 2020, 821, 153431.	2.8	12
16	Effects of a passive upper extremity exoskeleton for overhead tasks. <i>Journal of Electromyography and Kinesiology</i> , 2020, 55, 102478.	0.7	29
17	Drop Tower Experiment to Study the Effect of Microgravity on Friction Behavior: Experimental Set-up and Preliminary Results. <i>Microgravity Science and Technology</i> , 2020, 32, 1095-1104.	0.7	2
18	Wide-Gap Brazing of K417G Alloy Assisted by In Situ Precipitation of M3B2 Boride Particles. <i>Materials</i> , 2020, 13, 3140.	1.3	5

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19	Effects of Microstructure Evolution on Fretting Wear Behaviors of 25CrNi2MoVE Steel under Different Tempering States. <i>Metals</i> , 2020, 10, 351.	1.0	8
20	Microstructures and rolling contact fatigue behaviors of 17Cr2Ni2MoVNB steel under combined ultrasonic surface rolling and shot peening. <i>International Journal of Fatigue</i> , 2020, 141, 105867.	2.8	31
21	Evolution of the Fretting Wear Damage of a Complex Phase Compound Layer for a Nitrided High-Carbon High-Chromium Steel. <i>Metals</i> , 2020, 10, 1391.	1.0	2
22	Influence of Effective Laser Energy on the Structure and Mechanical Properties of Laser Melting Deposited Ti6Al4V Alloy. <i>Materials</i> , 2020, 13, 962.	1.3	11
23	Evolution of Fretting Wear Behaviors and Mechanisms of 20CrMnTi Steel after Carburizing. <i>Metals</i> , 2020, 10, 179.	1.0	15
24	Effect of shot peening on residual stress distribution and tribological behaviors of 17Cr2Ni2MoVNB steel. <i>Surface and Coatings Technology</i> , 2020, 386, 125497.	2.2	55
25	High temperature compressive properties and microstructure of WC-Ni3Al cermets prepared by spark plasma sintering. <i>Vacuum</i> , 2020, 175, 109281.	1.6	11
26	Ultrafine porous boron nitride nanofiber-toughened WC composites. <i>International Journal of Applied Ceramic Technology</i> , 2020, 17, 941-948.	1.1	5
27	Study on Microstructure and Mechanical Properties of WC-10Ni3Al Cemented Carbide Prepared by Different Ball-Milling Suspension. <i>Materials</i> , 2019, 12, 2224.	1.3	9
28	Effects of wearable power assist device on low back fatigue during repetitive lifting tasks. <i>Clinical Biomechanics</i> , 2019, 70, 59-65.	0.5	24
29	The influence of ultrasonic surface rolling on the fatigue and wear properties of 23-8N engine valve steel. <i>International Journal of Fatigue</i> , 2019, 125, 299-313.	2.8	54
30	Optimization of Friction Welding Process Parameters for 42Cr9Si2 Hollow Head and Sodium Filled Engine Valve and Valve Performance Evaluation. <i>Materials</i> , 2019, 12, 1123.	1.3	3
31	Effect of ultrasonic surface rolling on microstructure and rolling contact fatigue behavior of 17Cr2Ni2MoVNB steel. <i>Surface and Coatings Technology</i> , 2019, 366, 321-330.	2.2	37
32	Microstructure and tribological properties of carburized 95W-3.5Ni-1.0Fe-0.5Co heavy alloy. <i>Rare Metals</i> , 2019, 38, 165-172.	3.6	6
33	Design and operation of a new multifunctional wear apparatus for engine valve train components. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2018, 232, 259-276.	1.0	4
34	Study on High Temperature Friction and Wear Characteristics of 4Cr9Si2 Valve Steel. <i>Mechanisms and Machine Science</i> , 2018, , 1535-1546.	0.3	1
35	Effect of Quenching Temperature on Microstructure and Rolling Contact Fatigue Behavior of 17Cr2Ni2MoVNB Steel. <i>Metals</i> , 2018, 8, 735.	1.0	12
36	Machining Performance of TiAlN-Coated Cemented Carbide Tools with Chip Groove in Machining Titanium Alloy Ti-6Al-0.6Cr-0.4Fe-0.4Si-0.01B. <i>Metals</i> , 2018, 8, 850.	1.0	13

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37	Effect of Tempering Temperatures on Tensile Properties and Rotary Bending Fatigue Behaviors of 17Cr2Ni2MoVNb Steel. <i>Metals</i> , 2018, 8, 507.	1.0	9
38	Effect of the Different High Volume Fraction of SiC Particles on the Junction of Bismuthate Glass-SiC <sub>p</sub> /Al Composite. <i>Scanning</i> , 2018, 2018, 1-10.	0.7	1
39	Preparation and Anodizing of SiCp/Al Composites with Relatively High Fraction of SiCp. <i>Scanning</i> , 2018, 2018, 1-13.	0.7	1
40	The wear and fatigue behaviours of hollow head & sodium filled engine valve. <i>Tribology International</i> , 2018, 128, 75-88.	3.0	12
41	Effect of Multi-Pass Ultrasonic Surface Rolling on the Mechanical and Fatigue Properties of HIP Ti-6Al-4V Alloy. <i>Materials</i> , 2017, 10, 133.	1.3	25
42	Surface modification layer of Ti-6Al-4V produced by surface rolling and thermal oxidation. <i>Surface Innovations</i> , 2017, 5, 232-242.	1.4	6
43	Wear behavior and mechanism of a sliding pair of 0.1C-3Cr-2W-V nitrided steel rubbing against an aluminum bronze alloy. <i>Journal of Iron and Steel Research International</i> , 2016, 23, 281-288.	1.4	2
44	Comparison of Ti-Al-Based Intermetallics Joints Brazed with Amorphous and Crystalline Ti-Zr-Cu-Ni-Co-Mo Fillers. <i>Advanced Engineering Materials</i> , 2016, 18, 341-347.	1.6	9
45	Friction and Wear Behavior of 30CrMnSiA Steel at Elevated Temperatures. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 1407-1415.	1.2	21
46	Rolling contact fatigue property and failure mechanism of carburized 30CrSiMoVM steel at elevated temperature. <i>Tribology International</i> , 2016, 98, 144-154.	3.0	7
47	Examination of Electrical Conduction of Carbonyl Iron Powder Compacts. <i>Materials Transactions</i> , 2015, 56, 696-702.	0.4	4
48	Serrated Flow Behavior of Titanium-Based Composites with Different In Situ TiC Contents. <i>Advanced Engineering Materials</i> , 2015, 17, 1383-1390.	1.6	4
49	Preparation of SiCp/Al composite-bismuthate glass material and its application in mirror blanks. <i>RSC Advances</i> , 2015, 5, 52167-52173.	1.7	7
50	The oxidation behavior of the WC-10wt.% Ni3Al composite fabricated by spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2015, 629, 148-154.	2.8	34
51	Effects of Alloy Composition on Microstructure and Mechanical Properties of Iron-Based Materials Fabricated by Ball Milling and Spark Plasma Sintering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 476-487.	1.1	3
52	Bulk TiB <sub>2</sub> -Based Ceramic Composites with Improved Mechanical Property Using Fe-Ni-Ti-Al as a Sintering Aid. <i>Materials</i> , 2014, 7, 7105-7117.	1.3	14
53	Microstructure and magnetic properties of anisotropic Nd-Fe-B magnets prepared by spark plasma sintering and hot deformation. <i>Transactions of Nonferrous Metals Society of China</i> , 2014, 24, 3142-3151.	1.7	13
54	New Developments of Ti-Based Alloys for Biomedical Applications. <i>Materials</i> , 2014, 7, 1709-1800.	1.3	756

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55	Sinter-hardening with concurrent improved plasticity in iron alloys induced by spark plasma sintering. <i>Journal of Materials Research</i> , 2014, 29, 981-988.	1.2	2
56	Effects of cutting parameters on dry cutting of aluminum bronze alloy. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 70, 669-678.	1.5	16
57	Machining performance of a grooved tool in dry machining Ti-6Al-4V. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 73, 613-622.	1.5	17
58	Effect of Heating Rate on Densification and Grain Growth During Spark Plasma Sintering of 93W-5.6Ni-1.4Fe Heavy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 4323-4336.	1.1	23
59	Spark-Plasma Sintering of W-5.6Ni-1.4Fe Heavy Alloys: Densification and Grain Growth. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 923-933.	1.1	36
60	Effect of Minor Alloying Substitution on Glass-Forming Ability and Crystallization Behavior of a Ni <sub>57</sub> Zr <sub>22</sub> X <sub>8</sub> Nb <sub>8</sub> Al <sub>5</sub> (X = Ti, Cu) Alloy Synthesized by Mechanical Alloying. <i>Materials Transactions</i> , 2013, 54, 1844-1850.		
61	Preparation and mechanical properties of WC-10 Ni3Al cemented carbides with plate-like triangular prismatic WC grains. <i>Journal of Alloys and Compounds</i> , 2012, 544, 134-140.	2.8	39
62	Effect of Pulsed Magnetic Field on Spark Plasma Sintering of Iron-Based Powders. <i>Materials Transactions</i> , 2010, 51, 1308-1312.	0.4	6
63	Modeling and simulation of the proportional valve control system for the turbocharger. , 2010, , .		0
64	Microstructure and Mechanical Properties of SPSeD (Spark Plasma Sintered) Ti <sub>66</sub> Nb <sub>13</sub> Cu <sub>8</sub> Ni <sub>6.8</sub> Al <sub>6.2</sub> Bulk Alloys with and without WC Addition. <i>Materials Transactions</i> , 2009, 50, 1720-1724.	0.4	9
65	Effect of Shot Peening on Microstructures and High-Temperature Tribological Properties of 4Cr9Si2 Valve Steel. <i>Steel Research International</i> , 0, , 2100250.	1.0	3