

Norman Y Zhou

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8562999/publications.pdf>

Version: 2024-02-01

220
papers

8,592
citations

36303

51
h-index

69250

77
g-index

222
all docs

222
docs citations

222
times ranked

6383
citing authors

#	ARTICLE	IF	CITATIONS
1	Joining of Silver Nanomaterials at Low Temperatures: Processes, Properties, and Applications. ACS Applied Materials & Interfaces, 2015, 7, 12597-12618.	8.0	276
2	Low temperature sintering of Ag nanoparticles for flexible electronics packaging. Applied Physics Letters, 2010, 97, .	3.3	265
3	Generation of oxygen vacancies in visible light activated one-dimensional iodine TiO ₂ photocatalysts. RSC Advances, 2014, 4, 36959-36966.	3.6	233
4	Self-Powered Wearable Electronics Based on Moisture Enabled Electricity Generation. Advanced Materials, 2018, 30, e1705925.	21.0	207
5	Preparation of PVP coated Cu NPs and the application for low-temperature bonding. Journal of Materials Chemistry, 2011, 21, 15981.	6.7	183
6	Moisture-Enabled Electricity Generation: From Physics and Materials to Self-Powered Applications. Advanced Materials, 2020, 32, e2003722.	21.0	175
7	Tempering of Martensite in Dual-Phase Steels and Its Effects on Softening Behavior. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3115-3129.	2.2	156
8	Hydrothermal growth of free standing TiO ₂ nanowire membranes for photocatalytic degradation of pharmaceuticals. Journal of Hazardous Materials, 2011, 189, 278-285.	12.4	150
9	Silver Nanoparticle Paste for Low-Temperature Bonding of Copper. Journal of Electronic Materials, 2011, 40, 1394-1402.	2.2	137
10	A Unified Capacitive-Coupled Memristive Model for the Nonpinched Current-Voltage Hysteresis Loop. Nano Letters, 2019, 19, 6461-6465.	9.1	128
11	Effects of weld microstructure on static and impact performance of resistance spot welded joints in advanced high strength steels. Science and Technology of Welding and Joining, 2008, 13, 294-304.	3.1	125
12	Influence of microstructure and weld size on the mechanical behaviour of dissimilar AHSS resistance spot welds. Science and Technology of Welding and Joining, 2008, 13, 769-776.	3.1	121
13	Tensile and fatigue properties of fiber laser welded high strength low alloy and DP980 dual-phase steel joints. Materials & Design, 2013, 43, 373-383.	5.1	112
14	Biomemristors as the next generation bioelectronics. Nano Energy, 2020, 75, 104938.	16.0	110
15	Synaptic devices based neuromorphic computing applications in artificial intelligence. Materials Today Physics, 2021, 18, 100393.	6.0	110
16	Softening Kinetics in the Subcritical Heat-Affected Zone of Dual-Phase Steel Welds. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2348-2356.	2.2	90
17	Reliable and Low-Power Multilevel Resistive Switching in TiO ₂ Nanorod Arrays Structured with a TiO _x Seed Layer. ACS Applied Materials & Interfaces, 2017, 9, 4808-4817.	8.0	86
18	Laser sintering of silver nanoparticle thin films: microstructure and optical properties. Applied Physics A: Materials Science and Processing, 2012, 108, 685-691.	2.3	85

#	ARTICLE	IF	CITATIONS
19	Microstructure and fatigue properties of fiber laser welded dissimilar joints between high strength low alloy and dual-phase steels. <i>Materials & Design</i> , 2013, 51, 665-675.	5.1	82
20	Microstructure-properties correlation in fiber laser welding of dual-phase and HSLA steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 607, 445-453.	5.6	79
21	The Mechanisms of Resistance Spot Welding of Magnesium to Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 2651-2661.	2.2	77
22	Influence of superimposed ultrasound on deformability of Cu. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	76
23	Effects of tempering mode on the structural changes of martensite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 673, 467-475.	5.6	76
24	Mechanical and Functional Properties of Laser-Welded Ti-55.8Wt%Ni Nitinol Wires. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 2166-2175.	2.2	74
25	Self-Powered, Rapid-Response, and Highly Flexible Humidity Sensors Based on Moisture-Dependent Voltage Generation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 14249-14255.	8.0	74
26	Femtosecond laser welded nanostructures and plasmonic devices. <i>Journal of Laser Applications</i> , 2012, 24, .	1.7	71
27	Adsorption and Photocatalytic Degradation Kinetics of Pharmaceuticals by TiO ₂ Nanowires During Water Treatment. <i>Waste and Biomass Valorization</i> , 2012, 3, 443-449.	3.4	71
28	Microstructure and Mechanical Properties of Fiber-Laser-Welded and Diode-Laser-Welded AZ31 Magnesium Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 1974-1989.	2.2	70
29	Multiple Memory Shape Memory Alloys. <i>Advanced Engineering Materials</i> , 2013, 15, 386-393.	3.5	70
30	Effect of the size of silver nanoparticles on SERS signal enhancement. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	70
31	Palladium Nanoparticles Loaded on Carbon Modified TiO ₂ Nanobelts for Enhanced Methanol Electrooxidation. <i>Nano-Micro Letters</i> , 2013, 5, 202-212.	27.0	69
32	Electromagnetic impact welding of Mg to Al sheets. <i>Science and Technology of Welding and Joining</i> , 2009, 14, 549-553.	3.1	68
33	Room-temperature pressureless bonding with silver nanowire paste: towards organic electronic and heat-sensitive functional devices packaging. <i>Journal of Materials Chemistry</i> , 2012, 22, 12997.	6.7	66
34	Comparative study of small scale and "large scale"™ resistance spot welding. <i>Science and Technology of Welding and Joining</i> , 2001, 6, 273-280.	3.1	65
35	Footprint study of ultrasonic wedge-bonding with aluminum wire on copper substrate. <i>Journal of Electronic Materials</i> , 2006, 35, 433-442.	2.2	65
36	Effects of superimposed ultrasound on deformation of gold. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	65

#	ARTICLE	IF	CITATIONS
37	Novel technique for laser lap welding of zinc coated sheet steels. <i>Journal of Laser Applications</i> , 2007, 19, 259-264.	1.7	63
38	Photocatalytic decomposition of organic micropollutants using immobilized TiO ₂ having different isoelectric points. <i>Water Research</i> , 2016, 101, 351-361.	11.3	63
39	Fusion zone microstructure evolution of fiber laser welded press-hardened steels. <i>Scripta Materialia</i> , 2016, 121, 18-22.	5.2	63
40	Weldability of thin sheet metals during small-scale resistance spot welding using an alternating-current power supply. <i>Journal of Electronic Materials</i> , 2000, 29, 1090-1099.	2.2	62
41	Tensile Properties and Work Hardening Behavior of Laser-Welded Dual-Phase Steel Joints. <i>Journal of Materials Engineering and Performance</i> , 2012, 21, 222-230.	2.5	62
42	Liquid metal embrittlement in laser beam welding of Zn-coated 22MnB5 steel. <i>Materials and Design</i> , 2018, 155, 375-383.	7.0	61
43	Highly localized heat generation by femtosecond laser induced plasmon excitation in Ag nanowires. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	60
44	UV λ -Induced Multilevel Current Amplification Memory Effect in Zinc Oxide Rods Resistive Switching Devices. <i>Advanced Functional Materials</i> , 2018, 28, 1706230.	14.9	60
45	Feasibility study of resistance spot welding of dissimilar Al/Mg combinations with Ni based interlayers. <i>Science and Technology of Welding and Joining</i> , 2013, 18, 541-550.	3.1	59
46	Plasmonic λ -Radiation λ -Enhanced Metal Oxide Nanowire Heterojunctions for Controllable Multilevel Memory. <i>Advanced Functional Materials</i> , 2016, 26, 5979-5986.	14.9	59
47	Thiocarboxylate functionalization of silver nanoparticles: effect of chain length on the electrical conductivity of nanoparticles and their polymer composites. <i>Journal of Materials Chemistry</i> , 2012, 22, 20048.	6.7	58
48	Pulsed Nd:YAG laser welding of copper using oxygenated assist gases. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 2019-2030.	2.2	57
49	From Memristive Materials to Neural Networks. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 54243-54265.	8.0	56
50	Microresistance spot welding of Kovar, steel, and nickel. <i>Science and Technology of Welding and Joining</i> , 2001, 6, 63-72.	3.1	55
51	Single-step synthesis of graphene quantum dots by femtosecond laser ablation of graphene oxide dispersions. <i>Nanoscale</i> , 2016, 8, 8863-8877.	5.6	54
52	Bonding mechanism in ultrasonic gold ball bonds on copper substrate. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 1279-1286.	2.2	53
53	Concurrent photocatalytic and filtration processes using doped TiO ₂ coated quartz fiber membranes in a photocatalytic membrane reactor. <i>Chemical Engineering Journal</i> , 2017, 330, 531-540.	12.7	53
54	Recent progresses on hybrid micro λ -nano filler systems for electrically conductive adhesives (ECAs) applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 4730-4745.	2.2	52

#	ARTICLE	IF	CITATIONS
55	Pathway to understand liquid metal embrittlement (LME) in Fe-Zn couple: From fundamentals toward application. <i>Progress in Materials Science</i> , 2021, 121, 100798.	32.8	52
56	Reinforcement of Ag nanoparticle paste with nanowires for low temperature pressureless bonding. <i>Journal of Materials Science</i> , 2012, 47, 6801-6811.	3.7	51
57	Enhanced degradation of persistent pharmaceuticals found in wastewater treatment effluents using TiO ₂ nanobelt photocatalysts. <i>Journal of Nanoparticle Research</i> , 2013, 15, 1.	1.9	51
58	Effects of Welding Parameters on the Mechanical Performance of Laser Welded Nitinol. <i>Materials Transactions</i> , 2008, 49, 2702-2708.	1.2	50
59	Surface characterizations of laser modified biomedical grade NiTi shape memory alloys. <i>Materials Science and Engineering C</i> , 2015, 50, 367-378.	7.3	50
60	Photocatalytic decomposition of selected estrogens and their estrogenic activity by UV-LED irradiated TiO ₂ immobilized on porous titanium sheets via thermal-chemical oxidation. <i>Journal of Hazardous Materials</i> , 2016, 318, 541-550.	12.4	50
61	Self-Oriented Nanojoining of Silver Nanowires via Surface Selective Activation. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 420-426.	2.3	49
62	Molecular Dynamics Simulation of Sintering and Surface Premelting of Silver Nanoparticles. <i>Materials Transactions</i> , 2013, 54, 884-889.	1.2	49
63	Impact of liquid metal embrittlement cracks on resistance spot weld static strength. <i>Science and Technology of Welding and Joining</i> , 2019, 24, 218-224.	3.1	49
64	Numerical modelling and experimental validation of the effect of laser beam defocusing on process optimization during fiber laser welding of automotive press-hardened steels. <i>Journal of Manufacturing Processes</i> , 2021, 67, 535-544.	5.9	49
65	Microscopy study of snail trail phenomenon on photovoltaic modules. <i>RSC Advances</i> , 2012, 2, 11359.	3.6	48
66	Analytical modeling of isothermal solidification during transient liquid phase (TLP) bonding. <i>Journal of Materials Science Letters</i> , 2001, 20, 841-844.	0.5	47
67	Resistance spot welding of AZ series magnesium alloys: Effects of aluminum content on microstructure and mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 618, 323-334.	5.6	47
68	Role of spot weld electrode geometry on liquid metal embrittlement crack development. <i>Journal of Manufacturing Processes</i> , 2020, 49, 1-9.	5.9	47
69	Resistance-Spot-Welded AZ31 Magnesium Alloys: Part I. Dependence of Fusion Zone Microstructures on Second-Phase Particles. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 1511-1522.	2.2	46
70	Electrode sticking during micro-resistance welding of thin metal sheets. <i>IEEE Transactions on Electronics Packaging Manufacturing</i> , 2002, 25, 355-361.	1.4	45
71	Formation of a TiB ₂ -reinforced copper-based composite by mechanical alloying and hot pressing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 1275-1280.	2.2	45
72	Electrode pitting in resistance spot welding of aluminum alloy 5182. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 217-226.	2.2	45

#	ARTICLE	IF	CITATIONS
73	A review on the laser welding of coated 22MnB5 press-hardened steel and its impact on the production of tailor-welded blanks. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 447-467.	3.1	44
74	The effect of silicon content on liquid-metal-embrittlement susceptibility in resistance spot welding of galvanized dual-phase steel. <i>Journal of Manufacturing Processes</i> , 2020, 57, 370-379.	5.9	43
75	Carbon nanowalls: A new material for resistive switching memory devices. <i>Carbon</i> , 2017, 120, 54-62.	10.3	42
76	Fiber Laser Welded AZ31 Magnesium Alloy: The Effect of Welding Speed on Microstructure and Mechanical Properties. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 2133-2147.	2.2	41
77	Effects of au plating on small-scale resistance spot welding of thin-sheet nickel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 2667-2676.	2.2	40
78	Polymer-Protected Cu-Ag Mixed NPs for Low-Temperature Bonding Application. <i>Journal of Electronic Materials</i> , 2012, 41, 1886-1892.	2.2	40
79	<i>In situ</i> nanojoining of Y- and T-shaped silver nanowires structures using femtosecond laser radiation. <i>Nanotechnology</i> , 2016, 27, 125201.	2.6	40
80	Quantifying the link between crack distribution and resistance spot weld strength reduction in liquid metal embrittlement susceptible steels. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 807-814.	2.5	40
81	Effect of Chemistry on Nonisothermal Tempering and Softening of Dual-Phase Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 3242-3248.	2.2	39
82	Versatile memristor for memory and neuromorphic computing. <i>Nanoscale Horizons</i> , 2022, 7, 299-310.	8.0	38
83	Effects of concavity on tensile and fatigue properties in fibre laser welding of automotive steels. <i>Science and Technology of Welding and Joining</i> , 2014, 19, 60-68.	3.1	37
84	Non-zero-crossing current-voltage hysteresis behavior in memristive system. <i>Materials Today Advances</i> , 2020, 6, 100056.	5.2	37
85	Weldability of thin sheet metals by small-scale resistance spot welding using high-frequency inverter and capacitor-discharge power supplies. <i>Journal of Electronic Materials</i> , 2001, 30, 1012-1020.	2.2	35
86	Mechanism of resistance microwelding of crossed fine nickel wires. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 3165-3176.	2.2	35
87	Reduction in liquid metal embrittlement cracking using weld current ramping. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2019, 63, 1583-1591.	2.5	35
88	Threshold Switching in Single Metal Oxide Nanobelt Devices Emulating an Artificial Nociceptor. <i>Advanced Electronic Materials</i> , 2020, 6, 1900595.	5.1	35
89	Controlled joining of Ag nanoparticles with femtosecond laser radiation. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	34
90	Decoupling of the softening processes during rapid tempering of a martensitic steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 615, 395-404.	5.6	34

#	ARTICLE	IF	CITATIONS
91	Design guideline for intermetallic compound mitigation in Al-Mg dissimilar welding through addition of interlayer. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 94, 2667-2678.	3.0	34
92	Functionalization of silver nanowire surfaces with copper oxide for surface-enhanced Raman spectroscopic bio-sensing. <i>Journal of Materials Chemistry</i> , 2012, 22, 15495.	6.7	33
93	Multistate resistive switching behaviors for neuromorphic computing in memristor. <i>Materials Today Advances</i> , 2021, 9, 100125.	5.2	33
94	A study of transient liquid-phase bonding of Ag-Cu using differential scanning calorimetry. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006, 37, 2493-2504.	2.2	31
95	Electrical Conductive Adhesives Enhanced with High Aspect Ratio Silver Nanobelts. <i>Macromolecular Materials and Engineering</i> , 2014, 299, 739-747.	3.6	31
96	Tensile properties of fiber laser welded joints of high strength low alloy and dual-phase steels at warm and low temperatures. <i>Materials & Design</i> , 2014, 56, 193-199.	5.1	31
97	Effect of Multiple Pulse Resistance Spot Welding Schedules on Liquid Metal Embrittlement Severity. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2019, 141, .	2.2	31
98	Experimental and Numerical Analysis of Liquid Metal Embrittlement Crack Location. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 2045-2052.	2.5	31
99	Oxygen vacancy migration/diffusion induced synaptic plasticity in a single titanate nanobelt. <i>Nanoscale</i> , 2018, 10, 6069-6079.	5.6	30
100	Cooperative Bilayer of Lattice-Disordered Nanoparticles as Room-Temperature Sinterable Nanoarchitecture for Device Integrations. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 16972-16980.	8.0	30
101	A Battery-Like Self-Selecting Biomemristor from Earth-Abundant Natural Biomaterials. <i>ACS Applied Bio Materials</i> , 2021, 4, 1976-1985.	4.6	30
102	Failure behavior of resistance spot welded advanced high strength steel: The role of surface condition and initial microstructure. <i>Journal of Materials Processing Technology</i> , 2022, 299, 117370.	6.3	29
103	Improvement of Bondability by Depressing the Inhomogeneous Distribution of Nanoparticles in a Sintering Bonding Process with Silver Nanoparticles. <i>Journal of Electronic Materials</i> , 2012, 41, 1924-1930.	2.2	27
104	Effects of TiC composite coating on electrode degradation in microresistance welding of nickel-plated steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 1501-1511.	2.2	25
105	Metal–Metal Bonding Process Using Cu+Ag Mixed Nanoparticles. <i>Materials Transactions</i> , 2013, 54, 879-883.	1.2	25
106	Sintering Bonding Process with Ag Nanoparticle Paste and Joint Properties in High Temperature Environment. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-8.	2.7	25
107	Laser-induced Joining of Nanoscale Materials: Processing, Properties, and Applications. <i>Nano Today</i> , 2020, 35, 100959.	11.9	25
108	High-Performance Magnesium–Carbon Nanofiber Hygroelectric Generator Based on Interface-Mediation-Enhanced Capacitive Discharging Effect. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24289-24297.	8.0	25

#	ARTICLE	IF	CITATIONS
109	The Role of Internal Oxides on the Liquid Metal Embrittlement Cracking During Resistance Spot Welding of the Dual Phase Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2180-2191.	2.2	25
110	The effect of laser impingement angle on the optimization of melt pool geometry to improve process stability during high-speed laser welding of thin-gauge automotive steels. Journal of Manufacturing Processes, 2022, 78, 242-253.	5.9	25
111	Resistance Spot Welded AZ31 Magnesium Alloys, Part II: Effects of Welding Current on Microstructure and Mechanical Properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2642-2650.	2.2	24
112	Predicting Transient Softening in the Sub-Critical Heat-Affected Zone of Dual-Phase and Martensitic Steel Welds. ISIJ International, 2013, 53, 110-118.	1.4	24
113	Sintering mechanisms and mechanical properties of joints bonded using silver nanoparticles for electronic packaging applications. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 427-432.	2.5	24
114	Phase transformation of TiO ₂ nanoparticles by femtosecond laser ablation in aqueous solutions and deposition on conductive substrates. Nanoscale, 2017, 9, 6167-6177.	5.6	24
115	Role of Random and Coincidence Site Lattice Grain Boundaries in Liquid Metal Embrittlement of Iron (FCC)-Zn Couple. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3938-3944.	2.2	24
116	Characteristics of Sn-Cu Solder Bump Formed by Electroplating for Flip Chip. IEEE Transactions on Electronics Packaging Manufacturing, 2006, 29, 10-16.	1.4	23
117	Plasmonic engineering of metal-oxide nanowire heterojunctions in integrated nanowire rectification units. Applied Physics Letters, 2016, 108, .	3.3	23
118	Optimizing weld morphology and mechanical properties of laser welded Al-Si coated 22MnB5 by surface application of colloidal graphite. Journal of Materials Processing Technology, 2021, 293, 117093.	6.3	23
119	Mechanism of Secondary Hardening in Rapid Tempering of Dual-Phase Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 6153-6162.	2.2	22
120	Nanostructure of immiscible Mg-Fe dissimilar weld without interfacial intermetallic transition layer. Materials and Design, 2016, 92, 445-449.	7.0	22
121	Influence of SC-HAZ microstructure on the mechanical behavior of Si-TRIP steel welds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 718, 216-227.	5.6	22
122	A Simple High Power, Fast Response Streaming Potential/Current-Based Electric Nanogenerator Using a Layer of Al ₂ O ₃ Nanoparticles. ACS Applied Materials & Interfaces, 2021, 13, 27169-27178.	8.0	22
123	Thermo-chemical characterization of a Al nanoparticle and NiO nanowire composite modified by Cu powder. Thermochemica Acta, 2013, 572, 51-58.	2.7	21
124	Thermomechanical fatigue of post-weld heat treated NiTi shape memory alloy wires. International Journal of Fatigue, 2016, 92, 1-7.	5.7	21
125	Effect of coating weight on fiber laser welding of Galvanneal-coated 22MnB5 press hardening steel. Surface and Coatings Technology, 2018, 337, 536-543.	4.8	21
126	A Self-Powered Nanogenerator for the Electrical Protection of Integrated Circuits from Trace Amounts of Liquid. Nano-Micro Letters, 2020, 12, 5.	27.0	20

#	ARTICLE	IF	CITATIONS
127	Interfacial phenomena and joint strength in resistance microwelding of crossed Au-plated Ni wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 2717-2724.	2.2	19
128	Thermochemical Analysis of Phases Formed at the Interface of a Mg alloy-Ni-plated Steel Joint during Laser Brazing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1937-1946.	2.2	19
129	Fatigue behaviour of dissimilar Al 5052 and Mg AZ31 resistance spot welds with Sn-coated steel interlayer. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 1048-1058.	3.4	19
130	Improving the electrical contact at a Pt/TiO ₂ nanowire interface by selective application of focused femtosecond laser irradiation. Nanotechnology, 2017, 28, 405302.	2.6	19
131	Suppression of liquid metal embrittlement in resistance spot welding of TRIP steel. Science and Technology of Welding and Joining, 2019, 24, 579-586.	3.1	19
132	Enhancement of mechanical and functional properties of welded NiTi by controlling nickel vapourisation. Science and Technology of Welding and Joining, 2019, 24, 706-712.	3.1	19
133	Effect of Laser Positioning on the Microstructure and Properties of NiTi-Copper Dissimilar Laser Welds. Journal of Materials Engineering and Performance, 2020, 29, 849-857.	2.5	19
134	Passive Filters for Nonvolatile Storage Based on Capacitive-Coupled Memristive Effects in Nanolayered Organic-Inorganic Heterojunction Devices. ACS Applied Nano Materials, 2020, 3, 5045-5052.	5.0	18
135	Multifunctional Self-Powered Electronics Based on a Reusable Low-Cost Polypropylene Fabric Triboelectric Nanogenerator. ACS Applied Materials & Interfaces, 2021, 13, 34266-34273.	8.0	18
136	Effects of laser beam defocusing on high-strain-rate tensile behavior of press-hardened Zn-coated 22MnB5 steel welds. Optics and Laser Technology, 2021, 141, 107116.	4.6	18
137	The influence of in-situ alloying of electro-spark deposited coatings on the multiscale morphological and mechanical properties of laser welded Al-Si coated 22MnB5. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 839, 142830.	5.6	18
138	An Experimental Study of Transient Liquid Phase Bonding of the Ternary Ag-Au-Cu System Using Differential Scanning Calorimetry. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3708-3720.	2.2	17
139	Study and Applications of Dynamic Resistance Profiles During Resistance Spot Welding of Coated Hot-Stamping Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 745-758.	2.2	17
140	A True Random Number Generator Based on Ionic Liquid Modulated Memristors. ACS Applied Electronic Materials, 2021, 3, 2380-2388.	4.3	17
141	Femtosecond laser irradiation induced heterojunctions between carbon nanofibers and silver nanowires for a flexible strain sensor. Journal of Materials Science and Technology, 2021, 84, 139-146.	10.7	17
142	Water-Enabled Electricity Generation: A Perspective. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	17
143	Concurrent Optimization of Crescent Bond Pull Force and Tail Breaking Force in a Thermosonic Cu Wire Bonding Process. IEEE Transactions on Electronics Packaging Manufacturing, 2009, 32, 157-163.	1.4	16
144	Effects of Heat Treatment on Grain-Boundary δ -Mg ₁₇ Al ₁₂ and Fracture Properties of Resistance Spot-Welded AZ80 Mg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3747-3756.	2.2	16

#	ARTICLE	IF	CITATIONS
145	Nanoscale Wire Bonding of Individual Ag Nanowires on Au Substrate at Room Temperature. Nano-Micro Letters, 2017, 9, 26.	27.0	16
146	Two-photon absorption induced nanowelding for assembling ZnO nanowires with enhanced photoelectrical properties. Applied Physics Letters, 2019, 115, .	3.3	16
147	Plasmon-Induced Heterointerface Thinning for Schottky Barrier Modification of Core/Shell SiC/SiO ₂ Nanowires. ACS Applied Materials & Interfaces, 2019, 11, 9326-9332.	8.0	16
148	Preparation of Oxidation-Resistant Ag-Cu Alloy Nanoparticles by Polyol Method for Electronic Packaging. Journal of Electronic Materials, 2019, 48, 1286-1293.	2.2	16
149	Influence of Ni interlayer width on interfacial reactions and mechanical properties in laser welding/brazing of Al/Mg lap joint. Science and Technology of Welding and Joining, 2020, 25, 37-44.	3.1	16
150	The failure mechanism of resistance spot welded third-generation medium-Mn steel during shear-tension loading. Journal of Manufacturing Processes, 2022, 79, 520-531.	5.9	16
151	In-Situ Studies of the Effect of Ultrasound During Deformation on Residual Hardness of a Metal. Journal of Electronic Materials, 2009, 38, 647-654.	2.2	15
152	Microstructure, hardness and tensile properties of fusion zone in laser welding of advanced high strength steels. Canadian Metallurgical Quarterly, 2012, 51, 328-335.	1.2	15
153	Microstructure Refinement After the Addition of Titanium Particles in AZ31 Magnesium Alloy Resistance Spot Welds. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 598-609.	2.2	15
154	Photocatalysis with easily recoverable linear engineered TiO ₂ nanomaterials to prevent the formation of disinfection byproducts in drinking water. Journal of Environmental Chemical Engineering, 2018, 6, 197-207.	6.7	15
155	Solar photocatalysis with modified TiO ₂ photocatalysts: effects on NOM and disinfection byproduct formation potential. Environmental Science: Water Research and Technology, 2018, 4, 1361-1376.	2.4	15
156	Adjustable Leaky-Integrate-and-fire neurons based on memristor-coupled capacitors. Materials Today Advances, 2021, 12, 100192.	5.2	15
157	Laser welding-brazing of NiTi/304 stainless steel wires with beam defocus and large offset. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 835, 142660.	5.6	15
158	Transmission Electron Microscopy and Nanoindentation Study of the Weld Zone Microstructure of Diode-Laser-Joined Automotive Transformation-Induced Plasticity Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 593-603.	2.2	14
159	Electrode workpiece interface behaviour during resistance spot welding of Al alloy 5182. Science and Technology of Welding and Joining, 2009, 14, 295-304.	3.1	14
160	Bonding Mechanisms in Resistance Microwelding of 316 Low-Carbon Vacuum Melted Stainless Steel Wires. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 910-919.	2.2	14
161	Mechanism of Low Temperature Sintering-Bonding through In-Situ Formation of Silver Nanoparticles Using Silver Oxide Microparticles. Materials Transactions, 2013, 54, 872-878.	1.2	14
162	Effects of Interfacial Lattice Mismatching on Wetting of Ni-Plated Steel by Magnesium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5749-5766.	2.2	14

#	ARTICLE	IF	CITATIONS
163	Heterogeneous stimuli induced nonassociative learning behavior in ZnO nanowire memristor. <i>Nanotechnology</i> , 2020, 31, 125201.	2.6	14
164	A systematic study on the effect of coating type and surface preparation on the wettability of Si-Bronze brazing filler material on GI and GA-coated DP600. <i>Surface and Coatings Technology</i> , 2021, 425, 127735.	4.8	14
165	Effect of Forging Force on Fatigue Behavior of Spot Welded Joints of Aluminum Alloy 5182. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2007, 129, 95-100.	2.2	13
166	Investigation of splashing phenomena during the impact of molten sub-micron gold droplets on solid surfaces. <i>Soft Matter</i> , 2016, 12, 295-301.	2.7	13
167	Effect of galvanneal-coating evolution during press-hardening on laser welding of 22MnB5 steel. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 112-118.	3.1	13
168	Assembly of silver nanoparticles on nanowires into ordered nanostructures with femtosecond laser radiation. <i>Applied Optics</i> , 2015, 54, 2524.	1.8	12
169	A Predictive Model for Thermal Conductivity of Nano-Ag Sintered Interconnect for a SiC Die. <i>Journal of Electronic Materials</i> , 2019, 48, 2811-2825.	2.2	12
170	Superelasticity preservation in dissimilar joint of NiTi shape memory alloy to biomedical PtIr. <i>Materialia</i> , 2021, 16, 101090.	2.7	12
171	A Phenomenological Model of Resistance Spot Welding on Liquid Metal Embrittlement Severity Using Dynamic Resistance Measurement. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2020, 142, .	2.2	12
172	A New Non-PRM Bumping Process by Electroplating on Si Die for Three Dimensional Packaging. <i>Materials Transactions</i> , 2010, 51, 1887-1892.	1.2	11
173	Nano Brazing of Pt-Ag Nanoparticles under Femtosecond Laser Irradiation. <i>Nano-Micro Letters</i> , 2013, 5, 88-92.	27.0	11
174	The Effect of Pulse Energy on the Defects and Microstructure of Electro-Spark-Deposited Inconel 718. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 4223-4231.	2.2	11
175	Contact engineering of single core/shell SiC/SiO ₂ nanowire memory unit with high current tolerance using focused femtosecond laser irradiation. <i>Nanoscale</i> , 2020, 12, 5618-5626.	5.6	11
176	Weld hardness ratio and liquid metal embrittlement crack's detrimental effect on resistant spot weld strength. <i>Science and Technology of Welding and Joining</i> , 2021, 26, 58-67.	3.1	11
177	Effect of torch angle and position on bead geometry and joint strength during arc brazing of thin-gauge dual-phase steel. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 121, 543-557.	3.0	11
178	Effects of Au plating on dynamic resistance during small-scale resistance spot welding of thin Ni sheets. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 1901-1910.	2.2	10
179	Tensile and Fatigue Properties of Single and Multiple Dissimilar Welded Joints of DP980 and HSLA. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 783-791.	2.5	10
180	Laser-assisted wire cladding using a retrofitted laser welding system. <i>Surface Engineering</i> , 2021, 37, 634-641.	2.2	10

#	ARTICLE	IF	CITATIONS
181	Crossed-Wire Laser Microwelding of Pt-10%Pct Ir to 316 Low-Carbon Vacuum Melted Stainless Steel: Part I. Mechanism of Joint Formation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1223-1233.	2.2	9
182	Dynamic Tensile Behavior of Fiber Laser Welds of Medium Manganese Transformation-Induced Plasticity Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3578-3588.	2.2	9
183	Ultrathin TiO ₂ Interface-Mediated ZnO Nanowire Memristive Devices Emulating Synaptic Behaviors. Advanced Electronic Materials, 2019, 5, 1900142.	5.1	9
184	Significance of cutting plane in liquid metal embrittlement severity quantification. SN Applied Sciences, 2021, 3, 620.	2.9	9
185	Evolution of Cu/Al Intermetallic Compounds in the Copper Bump bonds during Aging Process. , 2007, , .		8
186	Comparison of Insulated with Bare Au Bonding Wire: HAZ Length, HAZ Breaking Force, and FAB Deformability. Journal of Electronic Materials, 2009, 38, 834-842.	2.2	8
187	Crossed-Wire Laser Microwelding of Pt-10%Pct Ir to 316 LVM Stainless Steel: Part II. Effect of Orientation on Joining Mechanism. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1234-1243.	2.2	8
188	A comparative study of silver nanoparticles synthesized by arc discharge and femtosecond laser ablation in aqueous solution. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	8
189	Formation and Toughening Mechanisms of Dispersions in Interfacial Intermetallics of Dissimilar Laser Al/Steel Joints. Journal of Materials Engineering and Performance, 2018, 27, 4107-4114.	2.5	8
190	Soft Biomaterials Based Flexible Artificial Synapse for Neuromorphic Computing. Advanced Electronic Materials, 2022, 8, .	5.1	8
191	Femtosecond laser induced surface melting and nanojoining for plasmonic circuits. Proceedings of SPIE, 2013, , .	0.8	7
192	Large-Area Die-Attachment Sintered by Organic-Free Ag Sintering Material at Low Temperature. Journal of Electronic Materials, 2019, 48, 7562-7572.	2.2	7
193	Highly focused femtosecond laser directed selective boron doping in single SiC nanowire device for n-p conversion. Applied Physics Letters, 2019, 115, .	3.3	7
194	A comprehensive insight into the superelasticity measurement of laser welded NiTi shape memory alloys. Materials Letters, 2021, 287, 129310.	2.6	7
195	Resistance microwelding of 316L stainless steel wire to block. Science and Technology of Welding and Joining, 2011, 16, 546-552.	3.1	6
196	Laser modification of Au-Cu-Au structures for improved electrical and electro-optical properties. Nanotechnology, 2022, 33, 245205.	2.6	6
197	High-Performance Mid-IR to Deep-UV van der Waals Photodetectors Capable of Local Spectroscopy at Room Temperature. Nano Letters, 2022, 22, 3425-3432.	9.1	6
198	Effect of internal oxidation on the weldability of CMnSi steels. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 1633-1639.	2.5	5

#	ARTICLE	IF	CITATIONS
199	Maskless Patterning of Metal Outflow in Alternating Metal/Ceramic Multiple Nanolayers by Femtosecond Laser Irradiation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 1178-1189.	3.1	5
200	Nanojoining and tailoring of current-voltage characteristics of metal-P type semiconductor nanowire heterojunction by femtosecond laser irradiation. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	5
201	Electrocatalytic Hydrolysis-Modulated Multistate Resistive Switching Behaviors in Memristors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000655.	1.8	5
202	Palladium Nanoparticles Loaded on Carbon Modified TiO ₂ Nanobelts for Enhanced Methanol Electrooxidation. <i>Nano-Micro Letters</i> , 2013, 5, 202.	27.0	5
203	Predicting liquid metal embrittlement severity in resistance spot welding using hot tensile testing data. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2022, 66, 1705-1714.	2.5	5
204	Resistance spot welding of NiTi shape memory alloy sheets: Microstructural evolution and mechanical properties. <i>Journal of Manufacturing Processes</i> , 2022, 81, 467-475.	5.9	5
205	Evolution of Transient Nature Nanoscale Softening During Martensite Tempering. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 3772-3777.	2.2	4
206	Effect of Microsegregation on High-Temperature Microstructure Evolution in Rapid Solidification Processed Nb-Rich Ni Superalloys. <i>Advanced Engineering Materials</i> , 2021, 23, 2001396.	3.5	4
207	A Comparison Between Hardness-Scaling and Ball-Indentation Techniques on Predicting Stress/Strain Distribution and Failure Behavior of Resistance Spot Welded Advanced High Strength Steel. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2022, 144, .	2.2	4
208	Effect of heat input modes on microstructure, mechanical properties and porosity of laser welded NiTi-316L joints: A comparative study. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 848, 143426.	5.6	4
209	Formation of metal-semiconductor nanowire heterojunctions by nanosecond laser irradiation. <i>AIP Advances</i> , 2021, 11, .	1.3	3
210	Mechanical properties and failure behavior of resistance spot welded medium-Mn steel under static and quasi-static shear-tension loading. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2022, 66, 1609-1622.	2.5	3
211	Effect of external loading on liquid metal embrittlement severity during resistance spot welding. <i>Manufacturing Letters</i> , 2022, 33, 11-14.	2.2	3
212	Laser engineering of ITO/ZnO/ITO structures for photodetector applications. <i>Journal of Laser Applications</i> , 2022, 34, 032006.	1.7	3
213	A new hybrid process for surface modification by combining brush plating with nitrocarburizing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 2240-2244.	2.2	2
214	The Feasibility of Au Ball Bonding on Sn-Plated Cu. <i>Journal of Electronic Materials</i> , 2007, 36, 682-689.	2.2	2
215	New process of electroplate Sn bumping on TSV without a PR mould for 3D-chip stacking. <i>Metals and Materials International</i> , 2011, 17, 631-635.	3.4	2
216	Interfacial Nano-Mechanical Properties of Copper Joints Bonded with Silver Nanopaste near Room Temperature. <i>Materials Transactions</i> , 2015, 56, 1010-1014.	1.2	2

#	ARTICLE	IF	CITATIONS
217	EFFECTS OF HOLDING TIME ON HAZ-SOFTENING IN RESISTANCE SPOT WELDED DP980 STEELS. Materials Research Society Symposia Proceedings, 2012, 1485, 95-100.	0.1	1
218	Multilevel Memory: Plasmonic-Radiation-Enhanced Metal Oxide Nanowire Heterojunctions for Controllable Multilevel Memory (Adv. Funct. Mater. 33/2016). Advanced Functional Materials, 2016, 26, 6135-6135.	14.9	1
219	Low temperature sintering of silver nanoparticle paste for electronic packaging. , 2016, , .		1
220	Laser Alloying as an Effective Way to Fabricate NiTiPt Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4368-4378.	2.2	1