N Murugan

List of Publications by Year
in descending order

127 papers	6,129 citations	66315 42 h-index	79644 73 g-index
129 all docs	129 docs citations	129 times ranked	3552 citing authors

#	Article	IF	Citations
1	Microstructural, Mechanical and Wear Properties of Friction Stir Welded AA6061/AlNp Composite Joints. Journal of Materials Engineering and Performance, 2022, 31, 651-666.	1.2	2
2	Application of artificial neural network in predicting the wear rate of copper surface composites produced using friction stir processing. Australian Journal of Mechanical Engineering, 2020, , 1-12.	1.5	9
3	Processing and wear properties of aluminium surface composites using friction stir processing. IOP Conference Series: Materials Science and Engineering, 2020, 764, 012023.	0.3	1
4	Microstructure and mechanical properties of friction stir welded AISI321 stainless steel. Journal of Materials Research and Technology, 2020, 9, 3967-3976.	2.6	12
5	Effect of friction stir welding on mechanical and microstructural properties of AISI 316L stainless steel butt joints. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 137-150.	1.3	16
6	Microstructure and wear characterization of AA2124/4wt.%B4C nano-composite coating on Tiâˆ’6Alâˆ’4V alloy using friction surfacing. Transactions of Nonferrous Metals Society of China, 2019, 29, 1263-1274.	1.7	35
7	Microstructure Evolution and Tensile Behavior of Dissimilar Friction Stir-Welded Pure Copper and Dual-Phase Brass. Metallography, Microstructure, and Analysis, 2019, 8, 735-748.	0.5	3
8	Identifying the optimal FSW process parameters for maximizing the tensile strength of friction stir welded AISI 316L butt joints. Measurement: Journal of the International Measurement Confederation, 2019, 137, 257-271.	2.5	29
9	Influence of Axial Force on Tensile Strength and Microstructural Characteristics of Friction Stir Buttwelded Aluminum Alloy/Steel Joints. Strength of Materials, 2019, 51, 300-316.	0.2	10
10	Microstructure and sliding wear characterization of submicron and nanometric boron carbide particulate reinforced AA2124 aluminum matrix composites prepared by stir casting. Materials Research Express, 2019, 6, 0865i3.	0.8	3
11	Friction stir welding of hybrid AA 6061-ZrO₂-C composites FSW process optimization using desirability approach. Materials Research Express, 2019, 6, 066553.	0.8	15
12	Weldability of marine grade AA 5052 aluminum alloy by underwater friction stir welding. International Journal of Advanced Manufacturing Technology, 2018, 95, 4535-4546.	1.5	47
13	Microstructure and mechanical properties of friction stir welded AISI 316L austenitic stainless steel joints. Journal of Materials Processing Technology, 2018, 254, 79-90.	3.1	43
14	Influence of rice husk ash particles on microstructure and tensile behavior of AA6061 aluminum matrix composites produced using friction stir processing. Composites Communications, 2017, 3, 42-46.	3.3	74
15	Influence of friction stir processing parameters on surface modified 90Cu-10Ni composites. Materials and Manufacturing Processes, 2017, 32, 1416-1427.	2.7	21
16	Graphene oxide/oxidized carbon nanofiber/mineralized hydroxyapatite based hybrid composite for biomedical applications. Materials Research Express, 2017, 4, 124005.	0.8	24
17	Microstructure and Mechanical Characterization of Aluminum Seamless Tubes Produced by Friction Stir Back Extrusion. Transactions of the Indian Institute of Metals, 2016, 69, 1811-1818.	0.7	20
18	Influence of tool material on mechanical and microstructural properties of friction stir welded 316L austenitic stainless steel butt joints. International Journal of Refractory Metals and Hard Materials, 2016, 58, 196-205.	1.7	33

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19	Effect of ceramic particulate type on microstructure and properties of copper matrix composites synthesized by friction stir processing. Journal of Materials Research and Technology, 2016, 5, 302-316.	2.6	73
20	Performance analysis of dissimilar friction stir welded aluminium alloy AA5052 and HSLA steel butt joints using response surface method. International Journal of Advanced Manufacturing Technology, 2016, 86, 2373-2392.	1.5	30
21	Development of empirical relationships for prediction of mechanical and wear properties of AA6082 aluminum matrix composites produced using friction stir processing. Engineering Science and Technology, an International Journal, 2016, 19, 1132-1144.	2.0	35
22	Tensile strength prediction of dissimilar friction stir-welded AA6351â€“AA5083 using artificial neural network technique. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 1647-1657.	0.8	32
23	Effect of Ceramic Particles on Microstructure and Mechanical Properties of Aluminium Surface Composite Fabricated Using Friction Stir Processing. Materials Science Forum, 2015, 830-831, 440-443.	0.3	2
24	Influence of tool rotational speed on microstructure and sliding wear behavior of Cu/B4C surface composite synthesized by friction stir processing. Transactions of Nonferrous Metals Society of China, 2015, 25, 95-102.	1.7	35
25	Influence of tool traverse speed on the characteristics of dissimilar friction stir welded aluminium alloy, AA5052 and HSLA steel joints. Archives of Civil and Mechanical Engineering, 2015, 15, 822-830.	1.9	51
26	Ball flower like manganese, strontium substituted hydroxyapatite/cerium oxide dual coatings on the AZ91 Mg alloy with improved bioactive and corrosion resistance properties for implant applications. RSC Advances, 2015, 5, 27402-27411.	1.7	35
27	Effect of tool axis offset and geometry of tool pin profile on the characteristics of friction stir welded dissimilar joints of aluminum alloy AA5052 and HSLA steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 219-233.	2.6	105
28	Smart rose flower like bioceramic/metal oxide dual layer coating with enhanced anti-bacterial, anti-cancer, anti-corrosive and biocompatible properties for improved orthopedic applications. RSC Advances, 2015, 5, 85831-85844.	1.7	15
29	Effect of Cooling Rate on Mechanical and Microstructural Characterization of Friction Stir Welded 316 L Austenitic Stainless Steel Joints. Materials Science Forum, 2015, 830-831, 314-318.	0.3	1
30	Synthesis and characterization of titanium carbide particulate reinforced AA6082 aluminium alloy composites via friction stir processing. Archives of Civil and Mechanical Engineering, 2015, 15, 324-334.	1.9	101
31	Deign of Experiment and Optimization of Plasma Transferred Arc Hardfacing on Structural Steel with Titanium Carbide. Research Journal of Applied Sciences, Engineering and Technology, 2014, 7, 2362-2370.	0.1	3
32	Production and Wear Characterization of AA6082 -TiC Surface Composites by Friction Stir Processing. Procedia Engineering, 2014, 97, 590-597.	1.2	29
33	Microstructural Characterization of Pure Copper Tubes Produced by a Novel Method Friction Stir Back Extrusion. , 2014, 5, 1502-1508.		29
34	Microstructure and some properties of aluminium alloy AA6061 reinforced<i>in situ</i>formed zirconium diboride particulate stir cast composite. International Journal of Cast Metals Research, 2014, 27, 115-121.	0.5	18
35	Fabrication and Characterization of CU/B4C Surface Dispersion Strengthened Composite using Friction Stir Processing. Archives of Metallurgy and Materials, 2014, 59, 83-87.	0.6	20
36	Effect of Heat Input on Macro, Micro and Tensile Properties of Flux Cored Arc Welded Ferritic Stainless Steel Joints. Transactions of the Indian Institute of Metals, 2014, 67, 375-383.	0.7	12

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37	Optimization of friction stir welding process parameters to maximize tensile strength of stir cast AA6061-T6/AlNp composite. Materials & Design, 2014, 57, 383-393.	5.1	64
38	Mechanical and metallurgical properties of dissimilar friction stir welded AA5083-H111 and AA6351-T6 aluminum alloys. Transactions of Nonferrous Metals Society of China, 2014, 24, 58-65.	1.7	50
39	Prediction of mechanical and wear properties of copper surface composites fabricated using friction stir processing. Materials & Design, 2014, 55, 224-234.	5.1	66
40	Dry sliding wear behavior of stir cast AA6061-T6/AlNp composite. Transactions of Nonferrous Metals Society of China, 2014, 24, 2785-2795.	1.7	66
41	Development of Al3Ti and Al3Zr intermetallic particulate reinforced aluminum alloy AA6061 in situ composites using friction stir processing. Materials & Design, 2014, 63, 213-222.	5.1	47
42	Electrodeposition of a porous strontium-substituted hydroxyapatite/zinc oxide duplex layer on AZ91 magnesium alloy for orthopedic applications. Journal of Materials Chemistry B, 2014, 2, 5531.	2.9	42
43	Characterization of friction stir welded boron carbide particulate reinforced AA6061 aluminum alloy stir cast composite. Materials & Design, 2014, 55, 176-182.	5.1	86
44	Characterization of boron carbide particulate reinforced in situ copper surface composites synthesized using friction stir processing. Materials Characterization, 2013, 84, 16-27.	1.9	133
45	Effect of Traverse Speed on Microstructure and Microhardness of Cu/B4C Surface Composite Produced by Friction Stir Processing. Transactions of the Indian Institute of Metals, 2013, 66, 333-337.	0.7	15
46	An AHP based heuristic DPSO algorithm for generating multi criteria productionâ€“distribution plan. Journal of Manufacturing Systems, 2013, 32, 632-647.	7.6	25
47	Influence of FCA Welding Process Parameters on Distortion of 409M Stainless Steel for Rail Coach Building. Journal of Iron and Steel Research International, 2013, 20, 71-78.	1.4	12
48	Design optimization of high voltage composite insulator using Electric field computations. , 2013, , .		10
49	Optimization of process parameters to maximize ultimate tensile strength of friction stir welded dissimilar aluminum alloys using response surface methodology. Journal of Central South University, 2013, 20, 2929-2938.	1.2	32
50	A Study on the Influence of PTAW Process Parameters on Pitting Corrosion Resistance of Nickel based Overlays. Procedia Engineering, 2013, 64, 1147-1156.	1.2	12
51	Role of friction stir welding parameters on tensile strength of AA6061â€“B4C composite joints. Transactions of Nonferrous Metals Society of China, 2013, 23, 616-624.	1.7	71
52	Prediction of tensile strength of friction stir welded stir cast AA6061-T6/AlNp composite. Materials & Design, 2013, 51, 998-1007.	5.1	46
53	Role of friction stir processing parameters on microstructure and microhardness of boron carbide particulate reinforced copper surface composites. Sadhana - Academy Proceedings in Engineering Sciences, 2013, 38, 1433-1450.	0.8	30
54	Optimization of Flux Cored Arc Welding Process Parameter Using Genetic and Memetic Algorithms. Journal for Manufacturing Science and Production, 2013, 13, 239-250.	0.1	3

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55	A discrete PSO approach for generating an integrated multi-plant aggregate production-distribution plan. International Journal of Knowledge-Based and Intelligent Engineering Systems, 2013, 17, 195-207.	0.7	1
56	Dry sliding wear behaviour of friction stir welded aluminum (6061)-B<SUB align="right">4C composite. International Journal of Microstructure and Materials Properties, 2013, 8, 239.	0.1	3
57	Friction Stir Processing Of IntermetallicÂparticulate Reinforced Aluminum MatrixÂcomposite. Advanced Materials Letters, 2013, 4, 230-234.	0.3	9
58	Optimization of Wear Rate of Friction Stir Welded AL-B4C Composite. , 2013, , 271-276.		2
59	Development of eco-friendly surface modification process for 316L austenitic stainless steel weld cladding. Surface Engineering, 2012, 28, 5-10.	1.1	5
60	Dry sliding wear behavior of AA6061/ZrB2 in-situ composite. Transactions of Nonferrous Metals Society of China, 2012, 22, 810-818.	1.7	83
61	Development of Mathematical Models for Prediction of Weld Bead Geometry in Cladding Mild Steel Valve Seat Rings by PTAW. Procedia Engineering, 2012, 38, 15-20.	1.2	8
62	Optimizations of Friction Stir Welding Process Parameters for the Welding of Al-B4C Composite Plates using Generalized Reduced Gradient Method. Procedia Engineering, 2012, 38, 49-55.	1.2	22
63	Automation of Friction Stir Welding Process to Join Aluminum Matrix Composites by Optimization. Procedia Engineering, 2012, 38, 105-110.	1.2	11
64	Prediction and Optimization of Wear Resistance of Friction Stir Welded Dissimilar Aluminum Alloy. Procedia Engineering, 2012, 38, 578-584.	1.2	21
65	Investigations on the Influence of Surfacing Process Parameters Over Bead Properties During Stainless Steel Cladding. Materials and Manufacturing Processes, 2012, 27, 69-77.	2.7	15
66	A simulation based heuristic discrete particle swarm algorithm for generating integrated productionâ€“distribution plan. Applied Soft Computing Journal, 2012, 12, 3034-3050.	4.1	32
67	Microstructure and sliding wear behavior of AA6360/(TiC+B4C) hybrid surface composite layer synthesized by friction stir processing on aluminum substrate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 336-344.	2.6	148
68	Microstructure and microhardness of AA1050/TiC surface composite fabricated using friction stir processing. Sadhana - Academy Proceedings in Engineering Sciences, 2012, 37, 579-586.	0.8	33
69	Optimization of friction stir welding process to maximize tensile strength of AA6061/ZrB2 in-situ composite butt joints. Metals and Materials International, 2012, 18, 135-142.	1.8	55
70	Developing an Empirical Relationship to Predict the Influence of Process Parameters on Tensile Strength of Friction Stir Welded AA6061/0â€"10 wt% ZrB2 In Situ Composite. Transactions of the Indian Institute of Metals, 2012, 65, 159-170.	0.7	19
71	Development of simulation-based AHP-DPSO algorithm for generating multi-criteria productionâ€“distribution plan. International Journal of Advanced Manufacturing Technology, 2012, 60, 373-396.	1.5	10
72	Production and wear characterisation of AA 6061 matrix titanium carbide particulate reinforced composite by enhanced stir casting method. Composites Part B: Engineering, 2012, 43, 302-308.	5.9	250

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73	Effect of tool rotational speed and pin profile on microstructure and tensile strength of dissimilar friction stir welded AA5083-H111 and AA6351-T6 aluminum alloys. Materials & Design, 2012, 40, 7-16.	5.1	252
74	Metallurgical and mechanical characterization of stir cast AA6061-T6â€"AlNp composite. Materials & Design, 2012, 40, 52-58.	5.1	160
75	Effect of friction stir welding on microstructure, mechanical and wear properties of AA6061/ZrB2 in situ cast composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 257-266.	2.6	89
76	Effect of Cr-doping on the structural and optical properties of CdS nanoparticles prepared by chemical precipitation method. Journal of Materials Science: Materials in Electronics, 2012, 23, 618-624.	1.1	16
77	DEVELOPMENT OF MATHEMATICAL MODEL TO PREDICT THE ULTIMATE TENSILE STRENGTH OF FRICTION STIR WELDED DISSIMILAR ALUMINUM ALLOY. Mechanika, 2012, 18, .	0.3	4
78	Structural and optical characterization of Ni-doped CdS quantum dots. Journal of Materials Science, 2011, 46, 3200-3206.	1.7	45
79	A mathematical model to predict the grain size of nanocrystalline CdS thin films based on the deposition condition used in the solâ€"gel spin coating method. Applied Physics A: Materials Science and Processing, 2011, 104, 1129-1136.	1.1	6
80	Prediction of tensile strength of friction stir welded aluminium matrix TiCp particulate reinforced composite. Materials & Design, 2011, 32, 462-467.	5.1	132
81	Production and characterization of AA6061â€"B4C stir cast composite. Materials & Design, 2011, 32, 4004-4009.	5.1	314
82	Influence of in situ formed ZrB2 particles on microstructure and mechanical properties of AA6061 metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5733-5740.	2.6	126
83	Nanocrystalline CdS thin films prepared by sol-gel spin coating. International Journal of Materials Research, 2011, 102, 584-586.	0.1	3
84	Development of mathematical model to predict the mechanical properties of friction stir welded AA6351 aluminum alloy. Journal of Engineering Science and Technology Review, 2011, 4, 25-31.	0.2	43
85	A genetic algorithm approach to generate an integrated multiplant aggregate production-distribution plan. International Journal of Services and Operations Management, 2010, 7, 76.	0.1	4
86	An integrated multi-plant aggregate production-distribution plan generated using memetic algorithm. International Journal of Value Chain Management, 2010, 4, 213.	0.1	3
87	Development of Mathematical Model for Prediction and Optimization of Particle Size in Nanocrystalline CdS Thin Films Prepared by Sol-Gel Spin-Coating Method. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 1338-1345.	1.0	10
88	Strong quantum confinement effect in nanocrystalline CdS. Journal of Materials Science, 2010, 45, 3254-3258.	1.7	54
89	Studies on optical absorption and structural properties of Fe doped CdS quantum dots. Solid State Sciences, 2010, 12, 1554-1559.	1.5	41
90	Influence of tool pin profile on the metallurgical and mechanical properties of friction stir welded Alâ€"10wt.% TiB2 metal matrix composite. Materials & Design, 2010, 31, 3585-3589.	5.1	153

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91	Tensile behavior of dissimilar friction stir welded joints of aluminium alloys. Materials & Design, 2010, 31, 4184-4193.	5.1	133
92	Influence of the Cd/S Molar Ratio on the Optical and Structural Properties of Nanocrystalline CdS Thin Films. Journal of Materials Science and Technology, 2010, 26, 193-199.	5.6	47
93	Effects of Plasma Transferred Arc Welding Parameters on Bead Geometry in Tungsten Carbide Hardfacing. Journal for Manufacturing Science and Production, 2009, 10, 155-168.	0.1	1
94	Optimization of pulsed GTA welding process parameters for the welding of AISI 304L stainless steel sheets. International Journal of Advanced Manufacturing Technology, 2009, 40, 478-489.	1.5	111
95	Optimization of weld bead geometry in plasma transferred arc hardfaced austenitic stainless steel plates using genetic algorithm. International Journal of Advanced Manufacturing Technology, 2009, 41, 24-30.	1.5	48
96	Finite element simulation of residual stresses and their measurement by contour method. Materials & Design, 2009, 30, 2067-2071.	5.1	40
97	Modelling and analysis of delta ferrite content in claddings deposited by flux cored arc welding using a neural network. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2009, 223, 779-787.	1.1	1
98	Optimization of Flux Cored Arc Welding Process Parameters Using Particle Swarm Optimization Technique. Journal for Manufacturing Science and Production, 2008, 9, 229-236.	0.1	0
99	Modelling and analysis of pitting corrosion resistance of stainless steel overlays deposited by flux cored arc welding process. Surface Engineering, 2008, 24, 422-428.	1.1	6
100	Ferrite number optimisation for stainless steel cladding by FCAW using Taguchi technique. International Journal of Materials and Product Technology, 2008, 33, 404.	0.1	12
101	Effect of Pulsed Gas Tungsten Arc Welding Process Parameters on Pitting Corrosion Resistance of Type 304L Stainless Steel Welds. Corrosion, 2007, 63, 433-441.	0.5	7
102	Effects of flux cored arc welding parameters on pitting corrosion resistance of duplex stainless steel clad metals. Corrosion Engineering Science and Technology, 2007, 42, 29-35.	0.7	4
103	Optimization of weld bead geometry for stainless steel claddings deposited by FCAW. Journal of Materials Processing Technology, 2007, 190, 291-299.	3.1	114
104	Effects of process parameters on the bead geometry of laser beam butt welded stainless steel sheets. International Journal of Advanced Manufacturing Technology, 2007, 32, 1125-1133.	1.5	78
105	Modeling and simulation of wire feed rate for steady current and pulsed current gas metal arc welding using 317L flux cored wire. International Journal of Advanced Manufacturing Technology, 2007, 34, 1111-1119.	1.5	29
106	Prediction of Delta Ferrite Content and Effect of Welding Process Parameters in Claddings by FCAW. Materials and Manufacturing Processes, 2006, 21, 431-438.	2.7	23
107	Sensitivity Analysis for Process Parameters in Cladding of Stainless Steel by Flux Cored Arc Welding. Journal of Manufacturing Processes, 2006, 8, 90-100.	2.8	35
108	Selection of parameters of pulsed current gas metal arc welding. Journal of Materials Processing Technology, 2006, 172, 1-10.	3.1	146

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109	Effect of flux cored arc welding process parameters on duplex stainless steel clad quality. Journal of Materials Processing Technology, 2006, 176, 230-239.	3.1	97
110	Development of mathematical models for prediction of weld bead geometry in cladding by flux cored arc welding. International Journal of Advanced Manufacturing Technology, 2006, 30, 669-676.	1.5	72
111	Process parameter selection for optimising weld bead geometry in stainless steel cladding using Taguchi's approach. Materials Science and Technology, 2006, 22, 1193-1200.	0.8	18
112	Effect of gas tungsten arc welding process variables on dilution and bead geometry of Stellite 6 hardfaced valve seat rings. Surface Engineering, 2006, 22, 375-383.	1.1	13
113	Sensitivity Analysis of Flux Cored Arc Cladding Parameters Using Response Surface Methodology. Journal for Manufacturing Science and Production, 2006, 7, 171-186.	0.1	1
114	Prediction and control of weld bead geometry and shape relationships in submerged arc welding of pipes. Journal of Materials Processing Technology, 2005, 168, 478-487.	3.1	138
115	Evaluation of residual stresses in dissimilar weld joints. International Journal of Pressure Vessels and Piping, 2005, 82, 700-705.	1.2	124
116	Sensitivity analysis of process parameters in PTA hardfacing of valve seats using response surface methodology. Materials Science and Technology, 2005, 21, 941-947.	0.8	5
117	Prediction and Optimisation of Weld Bead Geometry of Plasma Transferred Arc Hardfaced Valve Seat Rings. Surface Engineering, 2003, 19, 143-149.	1.1	33
118	TQM is a must for success, but not sufficient for survival: A conceptual framework as contemplated in ancient Tamil literature in India. Total Quality Management and Business Excellence, 2003, 14, 395-405.	2.4	15
119	Failure Analysis of a Dissimilar Weld Joint in a Steam Generator / Schadensanalyse einer Schwarz-WeiÃŸ-SchweiÃŸverbindung in einem Dampfgenerator. Praktische Metallographie/Practical Metallography, 2001, 38, 667-679.	0.1	11
120	Application of response surface methodology for predicting weld bead quality in submerged arc welding of pipes. Journal of Materials Processing Technology, 1999, 88, 266-275.	3.1	445
121	Prediction and comparison of the area of the heat-affected zone for the bead-on-plate and bead-on-joint in submerged arc welding of pipes. Journal of Materials Processing Technology, 1999, 95, 246-261.	3.1	94
122	Effects of MIG process parameters on the geometry of the bead in the automatic surfacing of stainless steel. Journal of Materials Processing Technology, 1994, 41, 381-398.	3.1	120
123	Effect of submerged arc process variables on dilution and bead geometry in single wire surfacing. Journal of Materials Processing Technology, 1993, 37, 767-780.	3.1	71
124	Effect of Tool pin Profile and Axial Force on Tensile Behavior in Friction Stir Welding of Dissimilar Aluminum Alloys. Advanced Materials Research, 0, 415-417, 1140-1146.	0.3	2
125	An Assessment on Friction Stir Welding of High Melting Temperature Materials. Applied Mechanics and Materials, 0, 592-594, 43-47.	0.2	6
126	Effect of Tool Rotational Speed on Microstructure and Microhardness of AA6082/TiC Surface Composites using Friction Stir Processing. Applied Mechanics and Materials, 0, 592-594, 234-239.	0.2	7

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127	Study on Dissimilar Butt Joining of Aluminum Alloy, AA5052 and High Strength Low Alloy Steel through a Modified FSW Process. Materials Science Forum, 0, 830-831, 278-281.	0.3	7