

Devendranath Ramkumar K

List of Publications by Year in descending order

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107
papers

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172457

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109
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1147
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of filler metals and welding techniques on the structureâ€“property relationships of Inconel 718 and AISI 316L dissimilar weldments. <i>Materials & Design</i> , 2014, 62, 175-188.	5.1	107
2	Studies on Friction Stir Welding of AA 2024 and AA 6061 Dissimilar Metals. <i>Procedia Engineering</i> , 2014, 75, 145-149.	1.2	89
3	Investigations on the microstructure, tensile strength and high temperature corrosion behaviour of Inconel 625 and Inconel 718 dissimilar joints. <i>Journal of Manufacturing Processes</i> , 2017, 25, 306-322.	5.9	84
4	Effect of filler materials on the performance of gas tungsten arc welded AISI 304 and Monel 400. <i>Materials & Design</i> , 2012, 40, 70-79.	5.1	82
5	Characterization of weld strength and impact toughness in the multi-pass welding of super-duplex stainless steel UNS 32750. <i>Materials & Design</i> , 2014, 60, 125-135.	5.1	76
6	Metallurgical and mechanical characterization of dissimilar welds of austenitic stainless steel and super-duplex stainless steel â€“ A comparative study. <i>Journal of Manufacturing Processes</i> , 2015, 19, 212-232.	5.9	72
7	Investigations on the microstructure and mechanical properties of dissimilar welds of inconel 718 and sulphur rich martensitic stainless steel, AISI 416. <i>Journal of Manufacturing Processes</i> , 2018, 32, 685-698.	5.9	69
8	Effect of optimal weld parameters in the microstructure and mechanical properties of autogeneous gas tungsten arc weldments of super-duplex stainless steel UNS S32750. <i>Materials & Design</i> , 2015, 66, 356-365.	5.1	67
9	Characterization of Microstructure, Strength, and Toughness of Dissimilar Weldments of Inconel 625 and Duplex Stainless Steel SAF 2205. <i>Acta Metallurgica Sinica (English Letters)</i> , 2014, 27, 1018-1030.	2.9	63
10	Microstructure and properties of inconel 718 and AISI 416 laser welded joints. <i>Journal of Materials Processing Technology</i> , 2019, 266, 52-62.	6.3	63
11	Investigations on the structure â€“ Property relationships of electron beam welded Inconel 625 and UNS 32205. <i>Materials & Design</i> , 2015, 68, 158-166.	5.1	59
12	Effects of filler metals on the segregation, mechanical properties and hot corrosion behaviour of pulsed current gas tungsten arc welded super-austenitic stainless steel. <i>Journal of Manufacturing Processes</i> , 2016, 24, 46-61.	5.9	57
13	Studies on the weldability, microstructure and mechanical properties of activated flux TIG weldments of Inconel 718. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 234-244.	5.6	56
14	Effect of filler wires and direct ageing on the microstructure and mechanical properties in the multi-pass welding of Inconel 718. <i>Journal of Manufacturing Processes</i> , 2015, 18, 23-45.	5.9	52
15	Characterization of metallurgical and mechanical properties on the multi-pass welding of Inconel 625 and AISI 316L. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 1039-1047.	1.5	51
16	Comparative studies on the weldability, microstructure and tensile properties of autogeneous TIG welded AISI 430 ferritic stainless steel with and without flux. <i>Journal of Manufacturing Processes</i> , 2015, 20, 54-69.	5.9	51
17	Investigations on the microstructure and mechanical properties of multi-pass pulsed current gas tungsten arc weldments of Monel 400 and Hastelloy C276. <i>Materials & Design</i> , 2014, 64, 775-782.	5.1	47
18	Studies on Effect of Tool Design and Welding Parameters on the Friction Stir Welding of Dissimilar Aluminium Alloys AA 5052 â€“ AA 6061. <i>Procedia Engineering</i> , 2014, 75, 93-97.	1.2	45

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19	Investigations on Dissimilar Weldments of Inconel 625 and AISI 304. <i>Procedia Engineering</i> , 2014, 75, 66-70.	1.2	43
20	Studies on the structureâ€“property relationships and corrosion behaviour of the activated flux TIG welding of UNS S32750. <i>Journal of Manufacturing Processes</i> , 2016, 23, 231-241.	5.9	43
21	Investigations on structureâ€“property relationships of activated flux TIG weldments of super-duplex/austenitic stainless steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 638, 60-68.	5.6	42
22	Multi-pass arc welding techniques of 12â€“mm thick super-duplex stainless steel. <i>Journal of Materials Processing Technology</i> , 2019, 271, 126-143.	6.3	40
23	Metallurgical and mechanical characterization of electron beam welded super-duplex stainless steel UNS 32750. <i>Journal of Manufacturing Processes</i> , 2014, 16, 527-534.	5.9	39
24	Investigation of Microstructure and Mechanical Properties of Super Alloy C-276 by Continuous Nd:YAG Laser Welding. , 2014, 5, 2233-2241.		38
25	Friction Stir Welded Butt Joints of AA2024 T3 and AA7075 T6 Aluminum Alloys. <i>Procedia Engineering</i> , 2014, 75, 98-102.	1.2	37
26	Influence of laser peening on the tensile strength and impact toughness of dissimilar welds of Inconel 625 and UNS S32205. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 676, 88-99.	5.6	37
27	Effect of Continuous and Pulsed Current on the Metallurgical and Mechanical Properties of Gas Tungsten Arc Welded AISI 4340 Aeronautical and AISI 304 L Austenitic Stainless Steel Dissimilar Joints. <i>Materials Research</i> , 2015, 18, 59-77.	1.3	35
28	Microstructure characterization and tensile properties of CMT-based wire plus arc additive manufactured ER2594. <i>Materials Characterization</i> , 2020, 169, 110671.	4.4	35
29	Characterization of Microstructure and Mechanical Properties of Inconel 625 and AISI 304 Dissimilar Weldments. <i>ISIJ International</i> , 2014, 54, 900-908.	1.4	33
30	Effect of post weld heat treatment on the microstructure and tensile properties of activated flux TIG welds of Inconel X750. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 658, 326-338.	5.6	33
31	Effect of flux addition on the microstructure and tensile strength of dissimilar weldments involving Inconel 718 and AISI 416. <i>Materials and Design</i> , 2015, 87, 663-674.	7.0	32
32	Effect of activated flux on penetration depth, microstructure and mechanical properties of Ti-6Al-4V TIG welds. <i>Journal of Materials Processing Technology</i> , 2018, 261, 233-241.	6.3	31
33	Development of improved microstructural traits and mechanical integrity of stabilized stainless steel joints of AISI 321. <i>Journal of Manufacturing Processes</i> , 2018, 32, 582-594.	5.9	28
34	Microstructure, mechanical properties and biocorrosion behavior of dissimilar welds of AISI 904L and UNS S32750. <i>Journal of Manufacturing Processes</i> , 2017, 30, 27-40.	5.9	27
35	Studies on microstructure and mechanical properties of keyhole mode Nd:YAG laser welded Inconel 625 and duplex stainless steel, SAF 2205. <i>Journal of Materials Research</i> , 2015, 30, 3288-3298.	2.6	25
36	Hot Corrosion Behavior of Friction Welded AISI 4140 and AISI 304 in K ₂ SO ₄ â€“60% NaCl Mixture. <i>Journal of Materials Science and Technology</i> , 2012, 28, 895-904.	10.7	24

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37	Hot-corrosion resistance of dissimilar AISI 4340 and AISI 304L weldments in the molten salt environment at 600°C. Corrosion Engineering Science and Technology, 2017, 52, 114-123.	1.4	23
38	Effect of Mo-rich Fillers in Pulsed Current Gas Tungsten Arc Welding of Inconel 718 for Improved Strength and Hot Corrosion Resistance. Journal of Materials Engineering and Performance, 2017, 26, 5620-5640.	2.5	23
39	Investigations on Mechanical and Metallurgical Properties of Dissimilar Continuous GTA Welds of Monel 400 and C-276. Procedia Engineering, 2014, 75, 61-65.	1.2	22
40	Characterization of weld strength and toughness in the multi-pass welding of Inconel 625 and Super-duplex stainless steel UNS S32750. Ciãncia & Tecnologia Dos Materiais, 2015, 27, 41-52.	0.5	21
41	Development of pulsed current gas tungsten arc welding technique for dissimilar joints of marine grade alloys. Journal of Manufacturing Processes, 2016, 21, 201-213.	5.9	21
42	Characterization of microstructure and mechanical properties of Super Ni 718 alloy and AISI 316L dissimilar weldments. Journal of Materials Research, 2014, 29, 3011-3023.	2.6	20
43	Assessment of Mechanical Properties of AISI 4140 and AISI 316 Dissimilar Weldments. Procedia Engineering, 2014, 75, 29-33.	1.2	20
44	Studies on Super Duplex Stainless Steel Manufactured by Wire Arc Additive Manufacturing. Transactions of the Indian Institute of Metals, 2021, 74, 1673.	1.5	20
45	Mechanical Characterization of Monel 400 and 316 Stainless Steel Weldments. Procedia Engineering, 2014, 75, 24-28.	1.2	19
46	Effect of autogeneous GTA welding with and without flux addition on the microstructure and mechanical properties of AISI 904L joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 1-9.	5.6	18
47	Assessment of Mechanical Properties of PCGTA Weldments of Inconel 625. Procedia Engineering, 2014, 75, 9-13.	1.2	17
48	Characterization of microstructure and mechanical properties of continuous and pulsed current gas tungsten arc welded superaustenitic stainless steel. Journal of Materials Research, 2015, 30, 1727-1746.	2.6	17
49	Comparative Studies of High and Low Frequency Pulsing on the Aspect Ratio of Weld Bead in Gas Tungsten Arc Welded AISI 304L Plates. Procedia Engineering, 2014, 97, 871-880.	1.2	16
50	Microstructural evolution and precipitation behavior in heat affected zone of Inconel 625 and AISI 904L dissimilar welds. IOP Conference Series: Materials Science and Engineering, 2017, 263, 062073.	0.6	16
51	Failure evaluation of SA 210C raffle water wall tubes in 70MW CFBC boiler. Engineering Failure Analysis, 2019, 95, 239-247.	4.0	16
52	Effect of grain boundary precipitation on the mechanical integrity of EBW joints of Inconel 625. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 808, 140926.	5.6	16
53	Investigating the microbial-influenced corrosion of UNS S32750 stainless-steel base alloy and weld seams by biofilm-forming marine bacterium <i>Macrococcus equiperficus</i> . Bioelectrochemistry, 2020, 135, 107546.	4.6	15
54	Hot corrosion behavior of monel 400 and AISI 304 dissimilar weldments exposed in the molten salt environment containing Na ₂ SO ₄ + 60% V ₂ O ₅ at 600 °C. Materials Research, 2014, 17, 1273-1284.	1.3	14

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55	Structure-property relationships of PCGTA welds of Inconel X750 in as-welded and post-weld heat treated conditions-A comparative study. <i>Journal of Manufacturing Processes</i> , 2015, 20, 1-14.	5.9	14
56	Influence of Filler Metals in the Control of Deleterious Phases During the Multi-pass Welding of Inconel 718 Plates. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 196-207.	2.9	14
57	Effect of Continuous and Pulsed Current GTA Welding on the Performance of Dissimilar Welds Involving Aerospace Grade Alloys. <i>Transactions of the Indian Institute of Metals</i> , 2017, 70, 729-739.	1.5	14
58	Optimization of the Pulsed Current Gas Tungsten Arc Welding Process Parameters for alloy C-276 using the Taguchi Method. <i>Procedia Engineering</i> , 2014, 97, 767-774.	1.2	13
59	Effect of Filler Metals on the Structure-Property Relationships of Continuous and Pulsed Current GTA Welds of AISI 430 and AISI 904L. <i>Metallography, Microstructure, and Analysis</i> , 2015, 4, 525-541.	1.0	13
60	Effect of Filler Metals on the Weldability and Mechanical Properties of Multi-pass PCGTA Weldments of AISI 316L. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 1602-1613.	2.5	13
61	Experimental investigations on the SiO ₂ flux-assisted GTA welding of super-austenitic stainless steels. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 93, 129-140.	3.0	13
62	Effect of pulse density and the number of shots on hardness and tensile strength of laser shock peened, activated flux TIG welds of AISI 347. <i>Journal of Manufacturing Processes</i> , 2017, 28, 295-308.	5.9	12
63	Effect of low energy laser shock peening on the mechanical integrity of Hastelloy C-276 welds. <i>Journal of Materials Processing Technology</i> , 2019, 274, 116296.	6.3	12
64	Microstructure and Mechanical Characterization of Incoloy 925 Welds in the As-Welded and Direct Aged Conditions. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 1563-1580.	2.5	12
65	Studies on Welding of Maraging Steels. <i>Procedia Engineering</i> , 2014, 75, 83-87.	1.2	10
66	Investigation on the fusion zone microstructures and mechanical integrity of AISI 904L and Inconel 625 weld joints. <i>Materials Research Express</i> , 2019, 6, 086540.	1.6	10
67	Microstructure and properties of nano-SiO ₂ activated flux TIG (A-TIG) welding of Incoloy 925 joints. <i>Journal of Manufacturing Processes</i> , 2020, 58, 998-1018.	5.9	8
68	Influences of Tool Geometry on Metallurgical and Mechanical Properties of Friction Stir Welded Dissimilar AA 2024 and AA 5052. <i>Procedia Engineering</i> , 2014, 75, 154-158.	1.2	7
69	Investigations on the structure-property relationships of PCGTA welds involving Inconel 718 and AISI 430. <i>Ciência & Tecnologia Dos Materiais</i> , 2017, 29, 28-38.	0.5	7
70	Studies on the weldability, microstructure and mechanical properties of flux assisted Nd:YAG laser welds of AISI 904L. <i>Journal of Materials Research</i> , 2015, 30, 2369-2379.	2.6	6
71	Effect of filler metals on the mechanical properties of Inconel 625 and AISI 904L dissimilar weldments using gas tungsten arc welding. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 263, 062072.	0.6	6
72	Direct ageing response on the microstructure and mechanical properties of electron beam welds of Ni-Cr-Fe alloy used in vacuum insulated tubing. <i>Journal of Manufacturing Processes</i> , 2020, 54, 359-373.	5.9	6

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73	Development of Defect Free Monel 400 Welds for Marine Application. <i>Advanced Materials Research</i> , 0, 383-390, 4693-4696.	0.3	5
74	Investigation on the Mechanical Properties of SA 210C Tubular Joints. <i>Procedia Engineering</i> , 2014, 75, 103-107.	1.2	5
75	Investigations on Structure-Property Relationships of Inconel 718 and AISI 430 Dissimilar Weldments. <i>Metallography, Microstructure, and Analysis</i> , 2015, 4, 305-321.	1.0	5
76	Investigations on the microstructure and mechanical properties of multi-pass PCGTA welding of super-duplex stainless steel. <i>Bulletin of Materials Science</i> , 2015, 38, 837-846.	1.7	5
77	Effect of fillers on the microstructure, mechanical properties, and hot corrosion behavior of Nb stabilized austenitic stainless steel welds. <i>Journal of Materials Research</i> , 2017, 32, 582-598.	2.6	5
78	Characterization of Microstructure, Tensile Strength and Corrosion Behavior of Autogenous GTA Welds of Inconel X750 With and Without Activated Compound Flux. <i>Metallography, Microstructure, and Analysis</i> , 2017, 6, 407-424.	1.0	5
79	Structure-property evaluation of single pass Laser-arc hybrid welding of re-sulphurized martensitic stainless steel. <i>Journal of Materials Processing Technology</i> , 2019, 271, 413-419.	6.3	5
80	Effect of weld microstructure on the tensile properties and impact toughness of the naval, marine-grade steel weld joints. <i>Journal of Materials Research and Technology</i> , 2022, 19, 3724-3737.	5.8	5
81	Microstructure Evolution, Structural Integrity, and Hot Corrosion Performance of Nitrogen-Enhanced Stainless Steel Welds. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 5806-5819.	2.5	4
82	Microstructure and mechanical integrity relationship of PDC weld joints involving dissimilar marine grade alloys. <i>Journal of Manufacturing Processes</i> , 2020, 50, 111-122.	5.9	4
83	Microstructural evolution and elemental variation across the fusion interface of AISI 904L and Inconel 625 dissimilar weldments. <i>Materials Today: Proceedings</i> , 2021, 46, 8260-8265.	1.8	4
84	Assessment on the Metallurgical and Mechanical Properties of SA 210 A1 Rifle Tubular Joints. <i>Procedia Engineering</i> , 2014, 75, 108-112.	1.2	3
85	Characterisation of Microstructure, Mechanical Properties and Corrosion Behaviour on GTA Welded AISI 310 and Inconel 800. <i>Advanced Materials Research</i> , 0, 383-390, 5863-5868.	0.3	2
86	Studies on Thin Film Oxide Formation on GTA Welded AISI 304 & AISI 310S Exposed at 600°C. <i>Advanced Materials Research</i> , 0, 584, 131-135.	0.3	2
87	Influence of Filler Materials on Mechanical and Hot Corrosion Properties of Gas Tungsten Arc Welded AISI 304. <i>Solid State Phenomena</i> , 2012, 185, 113-115.	0.3	2
88	Effect of hot corrosion on the bimetallic joints employed in the coal-fired boiler. <i>Materials Research Express</i> , 2019, 6, 116511.	1.6	2
89	Microstructural and Mechanical Characteristics of Cold Metal Transfer Weld Joints of UNS S32750. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 8095-8107.	2.5	2
90	Hot Corrosion Behavior of Dissimilar GTA Welded Monel 400 and AISI 304. <i>Communications in Computer and Information Science</i> , 2012, , 450-457.	0.5	2

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91	Effect of Nb-free consumables on the microstructure and structural integrity of pressure vessel grades of dissimilar austenitic stainless steel welded joints. Journal of Materials Research and Technology, 2022, 18, 3443-3456.	5.8	2
92	Hot Corrosion Studies on Bimetallic Combinations of Monel 400 and AISI 304 Subjected to Molten Salt Environment. Advanced Materials Research, 0, 383-390, 3217-3222.	0.3	1
93	Hot Corrosion Studies on Gas Tungsten Arc Welded AISI 304 and AISI 4140 Dissimilar Joints. Communications in Computer and Information Science, 2012, , 436-441.	0.5	1
94	Metallization of Iron Powders by Autocatalytic Copper Plating Process. Materials and Manufacturing Processes, 2013, , 130715070617001.	4.7	1
95	Micro-segregation Studies on the Continuous Nd: YAG Laser Beam Welded AISI 316L. Procedia Engineering, 2014, 97, 892-901.	1.2	1
96	Environment-Induced Degradation in Maraging Steel Grade 18Ni1700. Minerals, Metals and Materials Series, 2018, , 521-528.	0.4	1
97	Characterization of tensile strength and impact toughness of autogenous PCGTA weldments of aeronautical steel and austenitic stainless steel. Metallic Materials, 2021, 54, 279-288.	0.3	1
98	Hot Corrosion Studies on GTA Welded AISI 304, Monel 400 Subjected to Air Oxidation and Molten Salt Environment. Advanced Materials Research, 0, 383-390, 4688-4692.	0.3	0
99	Assessment of Mechanical and Corrosion Properties of GTA Welded Monel 400 Plates Exposed to Air Oxidation at 700°C. Solid State Phenomena, 2012, 185, 87-89.	0.3	0
100	Effect of Filler Metal's Choice on the Mechanical and Corrosion Properties of Gas Tungsten Arc Welded AISI 304. Advanced Materials Research, 0, 622-623, 335-339.	0.3	0
101	Evolution of Microstructures on GTA Welded AISI304 Subjected to Hot Corrosion at 700°C under Na ₂ SO ₄ + V ₂ O ₅ (60%). Solid State Phenomena, 0, 185, 84-86.	0.3	0
102	Hot Corrosion Studies of GTA Welded Monel 400 Exposed to Thin Film of Molten Na ₂ SO ₄ - 60% V ₂ O ₅ at 600°C. Advanced Materials Research, 2012, 584, 126-130.	0.3	0
103	Investigations on the Performance of Gta Welded Dissimilar Aisi 304 and Aisi 310s Subjected to Cyclic Hot Corrosion. Advanced Materials Research, 0, 622-623, 304-308.	0.3	0
104	Effect of Filler Metal's Choice on the Mechanical and Corrosion Properties of Gas Tungsten Arc Welded Aisi 304. Advanced Materials Research, 0, 622-623, 299-303.	0.3	0
105	A Comparative Study of Oxidation and Hot Corrosion of Electron Beam Welded Low Alloy Steel and Stainless Steel in Different Corrosive Environments. Communications in Computer and Information Science, 2012, , 442-449.	0.5	0
106	Comparative studies on GTA and PCGTA weldments of AISI 4140 and AISI 316 dissimilar metals. International Journal of Microstructure and Materials Properties, 2013, 8, 413.	0.1	0
107	Environment-Induced Degradation in Maraging Steel Grade 18Ni1700. Materials Science Forum, 2018, 941, 407-412.	0.3	0