

# Devendranath Ramkumar K

## List of Publications by Year in descending order

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107  
papers

2,416  
citations

172457

29  
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265206

42  
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109  
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109  
docs citations

109  
times ranked

1147  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of Nb-free consumables on the microstructure and structural integrity of pressure vessel grades of dissimilar austenitic stainless steel welded joints. <i>Journal of Materials Research and Technology</i> , 2022, 18, 3443-3456.	5.8	2
2	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
3	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
4	Effect of grain boundary precipitation on the mechanical integrity of EBW joints of Inconel 625. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 808, 140926.	5.6	16
5	Studies on Super Duplex Stainless Steel Manufactured by Wire Arc Additive Manufacturing. <i>Transactions of the Indian Institute of Metals</i> , 2021, 74, 1673.	1.5	20
6	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
7	Characterization of tensile strength and impact toughness of autogenous PCGTA weldments of aeronautical steel and austenitic stainless steel. <i>Metallic Materials</i> , 2021, 54, 279-288.	0.3	1
8	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
9	Microstructure characterization and tensile properties of CMT-based wire plus arc additive manufactured ER2594. <i>Materials Characterization</i> , 2020, 169, 110671.	4.4	35
10	Investigating the microbial-influenced corrosion of UNS S32750 stainless-steel base alloy and weld seams by biofilm-forming marine bacterium <i>Macrocooccus equiperficus</i> . <i>Bioelectrochemistry</i> , 2020, 135, 107546.	4.6	15
11	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
12	Microstructure and properties of nano-SiO <sub>2</sub> activated flux TIG (A-TIG) welding of Incoloy 925 joints. <i>Journal of Manufacturing Processes</i> , 2020, 58, 998-1018.	5.9	8
13	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
14	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
15	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
16	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
17	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
18	Multi-pass arc welding techniques of 12 mm thick super-duplex stainless steel. <i>Journal of Materials Processing Technology</i> , 2019, 271, 126-143.	6.3	40

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19	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
20	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
21	Failure evaluation of SA 210C raffle water wall tubes in 70â€MW CFBC boiler. <i>Engineering Failure Analysis</i> , 2019, 95, 239-247.	4.0	16
22	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
23	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
24	Environment-Induced Degradation in Maraging Steel Grade 18Ni1700. <i>Minerals, Metals and Materials Series</i> , 2018, , 521-528.	0.4	1
25	Environment-Induced Degradation in Maraging Steel Grade 18Ni1700. <i>Materials Science Forum</i> , 2018, 941, 407-412.	0.3	0
26	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
27	Experimental investigations on the SiO <sub>2</sub> flux-assisted GTA welding of super-austenitic stainless steels. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 93, 129-140.	3.0	13
28	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
29	Hot-corrosion resistance of dissimilar AISI 4340 and AISI 304L weldments in the molten salt environment at 600Â°C. <i>Corrosion Engineering Science and Technology</i> , 2017, 52, 114-123.	1.4	23
30	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
31	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
32	Investigations on the structure â€ property relationships of PCGTA welds involving Inconel 718 and AISI 430. <i>CiÃªncia &amp; Tecnologia Dos Materiais</i> , 2017, 29, 28-38.	0.5	7
33	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
34	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
35	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
36	Effect of Mo-rich Fillers in Pulsed Current Gas Tungsten Arc Welding of Inconel 718 for Improved Strength and Hot Corrosion Resistance. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 5620-5640.	2.5	23

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37	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
38	Microstructural evolution and precipitation behavior in heat affected zone of Inconel 625 and AISI 904L dissimilar welds. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 263, 062073.	0.6	16
39	Effect of post weld heat treatment on the microstructure and tensile properties of activated flux TIG welds of Inconel X750. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 658, 326-338.	5.6	33
40	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
41	Influence of laser peening on the tensile strength and impact toughness of dissimilar welds of Inconel 625 and UNS S32205. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 676, 88-99.	5.6	37
42	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
43	Development of pulsed current gas tungsten arc welding technique for dissimilar joints of marine grade alloys. <i>Journal of Manufacturing Processes</i> , 2016, 21, 201-213.	5.9	21
44	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
45	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
46	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
47	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
48	Effect of Filler Metals on the Structureâ€“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
49	Structureâ€“property relationships of PCGTA welds of Inconel X750 in as-welded and post-weld heat treated conditionsâ€“A comparative study. <i>Journal of Manufacturing Processes</i> , 2015, 20, 1-14.	5.9	14
50	Investigations on the structure â€“ Property relationships of electron beam welded Inconel 625 and UNS 32205. <i>Materials &amp; Design</i> , 2015, 68, 158-166.	5.1	59
51	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
52	Investigations on Structureâ€“Property Relationships of Inconel 718 and AISI 430 Dissimilar Weldments. <i>Metallography, Microstructure, and Analysis</i> , 2015, 4, 305-321.	1.0	5
53	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
54	Studies on the weldability, microstructure and mechanical properties of activated flux TIG weldments of Inconel 718. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 234-244.	5.6	56

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55	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
56	Characterization of microstructure and mechanical properties of continuous and pulsed current gas tungsten arc welded superaustenitic stainless steel. <i>Journal of Materials Research</i> , 2015, 30, 1727-1746.	2.6	17
57	Investigations on structure-property relationships of activated flux TIG weldments of super-duplex/austenitic stainless steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 638, 60-68.	5.6	42
58	Effect of autogeneous GTA welding with and without flux addition on the microstructure and mechanical properties of AISI 904L joints. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 636, 1-9.	5.6	18
59	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
60	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
61	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
62	Characterization of weld strength and toughness in the multi-pass welding of Inconel 625 and Super-duplex stainless steel UNS S32750. <i>Ciência &amp; Tecnologia Dos Materiais</i> , 2015, 27, 41-52.	0.5	21
63	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
64	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 &amp; Design</i> , 2015, 66, 356-365.	5.1	67
65	Hot corrosion behavior of monel 400 and AISI 304 dissimilar weldments exposed in the molten salt environment containing Na <sub>2</sub> SO <sub>4</sub> + 60% V <sub>2</sub> O <sub>5</sub> at 600 °C. <i>Materials Research</i> , 2014, 17, 1273-1284.	1.3	14
66	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
67	Comparative Studies of High and Low Frequency Pulsing on the Aspect Ratio of Weld Bead in Gas Tungsten Arc Welded AISI 304L Plates. <i>Procedia Engineering</i> , 2014, 97, 871-880.	1.2	16
68	Characterization of microstructure and mechanical properties of Super Ni 718 alloy and AISI 316L dissimilar weldments. <i>Journal of Materials Research</i> , 2014, 29, 3011-3023.	2.6	20
69	Micro-segregation Studies on the Continuous Nd: YAG Laser Beam Welded AISI 316L. <i>Procedia Engineering</i> , 2014, 97, 892-901.	1.2	1
70	Investigation of Microstructure and Mechanical Properties of Super Alloy C-276 by Continuous Nd: YAG Laser Welding. , 2014, 5, 2233-2241.		38
71	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
72	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

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73	Characterization of weld strength and impact toughness in the multi-pass welding of super-duplex stainless steel UNS 32750. <i>Materials &amp; Design</i> , 2014, 60, 125-135.	5.1	76
74	Investigations on the microstructure and mechanical properties of multi-pass pulsed current gas tungsten arc weldments of Monel 400 and Hastelloy C276. <i>Materials &amp; Design</i> , 2014, 64, 775-782.	5.1	47
75	Friction Stir Welded Butt Joints of AA2024 T3 and AA7075 T6 Aluminum Alloys. <i>Procedia Engineering</i> , 2014, 75, 98-102.	1.2	37
76	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
77	Investigation on the Mechanical Properties of SA 210C Tubular Joints. <i>Procedia Engineering</i> , 2014, 75, 103-107.	1.2	5
78	Investigations on Dissimilar Weldments of Inconel 625 and AISI 304. <i>Procedia Engineering</i> , 2014, 75, 66-70.	1.2	43
79	Investigations on Mechanical and Metallurgical Properties of Dissimilar Continuous GTA Welds of Monel 400 and C-276. <i>Procedia Engineering</i> , 2014, 75, 61-65.	1.2	22
80	Assessment of Mechanical Properties of PCGTA Weldments of Inconel 625. <i>Procedia Engineering</i> , 2014, 75, 9-13.	1.2	17
81	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
82	Assessment of Mechanical Properties of AISI 4140 and AISI 316 Dissimilar Weldments. <i>Procedia Engineering</i> , 2014, 75, 29-33.	1.2	20
83	Mechanical Characterization of Monel 400 and 316 Stainless Steel Weldments. <i>Procedia Engineering</i> , 2014, 75, 24-28.	1.2	19
84	Studies on Welding of Maraging Steels. <i>Procedia Engineering</i> , 2014, 75, 83-87.	1.2	10
85	Studies on Effect of Tool Design and Welding Parameters on the Friction Stir Welding of Dissimilar Aluminium Alloys AA 5052 & AA 6061. <i>Procedia Engineering</i> , 2014, 75, 93-97.	1.2	45
86	Studies on Friction Stir Welding of AA 2024 and AA 6061 Dissimilar Metals. <i>Procedia Engineering</i> , 2014, 75, 145-149.	1.2	89
87	Influence of filler metals and welding techniques on the structure-property relationships of Inconel 718 and AISI 316L dissimilar weldments. <i>Materials &amp; Design</i> , 2014, 62, 175-188.	5.1	107
88	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
89	Comparative studies on GTA and PCGTA weldments of AISI 4140 and AISI 316 dissimilar metals. <i>International Journal of Microstructure and Materials Properties</i> , 2013, 8, 413.	0.1	0
90	Metallization of Iron Powders by Autocatalytic Copper Plating Process. <i>Materials and Manufacturing Processes</i> , 2013, , 130715070617001.	4.7	1

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91	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
92	Hot Corrosion Studies of GTA Welded Monel 400 Exposed to Thin Film of Molten Na <sub>2</sub> SO <sub>4</sub> - 60% V <sub>2</sub> O <sub>5</sub> at 600°C. Advanced Materials Research, 2012, 584, 126-130.	0.3	0
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	Influence of Filler Materials on Mechanical and Hot Corrosion Properties of Gas Tungsten Arc Welded AISI 304. Solid State Phenomena, 2012, 185, 113-115.	0.3	2
95	Hot Corrosion Behavior of Friction Welded AISI 4140 and AISI 304 in K <sub>2</sub> SO <sub>4</sub> -60% NaCl Mixture. Journal of Materials Science and Technology, 2012, 28, 895-904.	10.7	24
96	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
97	Effect of filler materials on the performance of gas tungsten arc welded AISI 304 and Monel 400. Materials & Design, 2012, 40, 70-79.	5.1	82
98	Hot Corrosion Behavior of Dissimilar GTA Welded Monel 400 and AISI 304. Communications in Computer and Information Science, 2012, , 450-457.	0.5	2
99	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
100	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
101	Development of Defect Free Monel 400 Welds for Marine Application. Advanced Materials Research, 0, 383-390, 4693-4696.	0.3	5
102	Characterisation of Microstructure, Mechanical Properties and Corrosion Behaviour on GTA Welded AISI 310 and Inconel 800. Advanced Materials Research, 0, 383-390, 5863-5868.	0.3	2
103	Studies on Thin Film Oxide Formation on GTA Welded AISI 304 & AISI 310S Exposed at 600°C. Advanced Materials Research, 0, 584, 131-135.	0.3	2
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, 335-339.	0.3	0
105	Evolution of Microstructures on GTA Welded AISI304 Subjected to Hot Corrosion at 700°C under Na <sub>2</sub> SO <sub>4</sub> + V <sub>2</sub> O <sub>5</sub> (60%). Solid State Phenomena, 0, 185, 84-86.	0.3	0
106	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
107	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