

Murugaiyan Amirthalingam

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Gas metal arc brazing behaviour of a galvanised advanced high strength steel in short circuiting and short circuiting with pulsing modes. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2022, 66, 69-80.	2.5	2
2	Functionally graded materials for marine risers by additive manufacturing for high-temperature applications: Experimental investigations. <i>Structures</i> , 2022, 35, 931-938.	3.6	14
3	Design and fabrication of micro-plasma transferred wire arc additive manufacturing system. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2022, 37, 185-195.	4.5	6
4	Dislocation density based modelling of electrically assisted deformation process by finite element approach. <i>International Journal of Mechanical Sciences</i> , 2022, 227, 107433.	6.7	17
5	Modelling Transient Mechanical Behavior of Aluminum Alloy During Electric-Assisted Forming. <i>Minerals, Metals and Materials Series</i> , 2022, , 105-113.	0.4	1
6	Development of shielded metal arc welding electrodes to achieve carbide-free bainitic weld microstructures. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2021, 65, 1-11.	2.5	2
7	Influence of droplet transfer behaviour on the microstructure, mechanical properties and corrosion resistance of wire arc additively manufactured Inconel (IN) 625 components. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2021, 65, 573-588.	2.5	10
8	A novel method for the spring-back analysis of a hot stamping steel. <i>Journal of Materials Research and Technology</i> , 2021, 11, 227-234.	5.8	10
9	Microstructure dependent electroplastic effect in AA 6063 alloy and its nanocomposites. <i>Journal of Materials Research and Technology</i> , 2021, 12, 2185-2204.	5.8	25
10	Improving arc stability during wire arc additive manufacturing of thin-walled titanium components. <i>Journal of Manufacturing Processes</i> , 2021, 66, 53-69.	5.9	19
11	Recovery of rare earths from glass polishing waste for the production of aluminium-rare earth alloys. <i>Resources, Conservation and Recycling</i> , 2021, 174, 105766.	10.8	12
12	Temperature dependent partitioning mechanisms and its associated microstructural evolution in a CMnSiAl quenching and partitioning (Q&P) steel. <i>Materials Today Communications</i> , 2021, 29, 102918.	1.9	1
13	Microstructural development during wire arc additive manufacturing of copper-based components. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 395-405.	2.5	23
14	Wire arc additive manufacturing of functionally graded material for marine risers. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 792, 139530.	5.6	52
15	Study of Solidification Cracking in a Transformation-Induced Plasticity-Aided Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1015-1020.	2.2	11
16	Investigation on hot cracking during laser welding by means of experimental and numerical methods. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 71-78.	2.5	9
17	<i>in situ</i> strain investigation during laser welding using digital image correlation and finite-element-based numerical simulation. <i>Science and Technology of Welding and Joining</i> , 2018, 23, 134-139.	3.1	10
18	Hot cracking investigation during laser welding of high-strength steels with multi-scale modelling approach. <i>Science and Technology of Welding and Joining</i> , 2018, 23, 287-294.	3.1	12

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19	Experimental evidence of liquid feeding during solidification of a steel. Scripta Materialia, 2018, 146, 105-109.	5.2	28
20	Study of Solidification Cracking Susceptibility during Laser Welding in an Advanced High Strength Automotive Steel. Metals, 2018, 8, 673.	2.3	20
21	Elemental segregation during resistance spot welding of boron containing advanced high strength steels. Welding in the World, Le Soudage Dans Le Monde, 2015, 59, 743-755.	2.5	34
22	Anisotropy in Thermal Expansion of Bainitic Ferrite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5281-5285.	2.2	2
23	Synchrotron Diffraction Studies on the Transformation Strain in a High Strength Quenched and Tempered Structural Steel. Materials Science Forum, 2014, 777, 231-236.	0.3	0
24	In-Situ Synchrotron Diffraction Studies on Transformation Strain Development in a High-Strength Quenched and Tempered Structural Steel—Part II. Martensitic Transformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 230-238.	2.2	2
25	In-Situ Synchrotron Diffraction Studies on Transformation Strain Development in a High Strength Quenched and Tempered Structural Steel—Part I. Bainitic Transformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 218-229.	2.2	11
26	Stress relaxation due to ultrasonic impact treatment on multi-pass welds. Science and Technology of Welding and Joining, 2014, 19, 505-513.	3.1	41
27	Pass-by-pass stress evolution in multipass welds. Science and Technology of Welding and Joining, 2014, 19, 256-264.	3.1	12
28	In Situ Synchrotron Diffraction Studies on the Formation, Decomposition and Stabilisation of Austenite in TRIP Steels During Simulated Weld Thermal Cycles. , 2014, , 71-88.		0
29	In Situ Synchrotron Diffraction Studies on Peak Broadening During Bainitic Transformation in a High Strength Quenched and Tempered Steel. , 2014, , 51-70.		1
30	Transformation-Induced Diffraction Peak Broadening During Bainitic and Martensitic Transformations Under Small External Loads in a Quenched and Tempered High Strength Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4011-4014.	2.2	5
31	In situ synchrotron diffraction studies on the temperature-dependent plane-specific elastic constants in a high-strength quenched and tempered structural steel. Scripta Materialia, 2013, 69, 187-190.	5.2	15
32	Kinetics of bainitic transformation and transformation plasticity in a high strength quenched and tempered structural steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 86-95.	5.6	20
33	Synchrotron diffraction analysis of retained austenite in welded transformation induced plasticity (TRIP) steels. Science and Technology of Welding and Joining, 2012, 17, 146-154.	3.1	1
34	Quantitative Analysis of Microstructural Constituents in Welded Transformation-Induced-Plasticity Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 431-439.	2.2	19
35	In Situ Phase Transformation Studies on a Transformation Induced Plasticity Steel Under Simulated Weld Thermal Cycles Using Synchrotron Diffraction. , 2010, , 133-148.		4
36	Multipurpose furnace for <i>in situ</i> studies of polycrystalline materials using synchrotron radiation. Review of Scientific Instruments, 2009, 80, 123301.	1.3	18

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37	Microstructural Development during Welding of Silicon- and Aluminum-Based Transformation-Induced Plasticity Steels—Inclusion and Elemental Partitioning Analysis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 901-909.	2.2	28
38	Phase transformation behaviour in two Mn-Si based steels under different cooling rates. Ironmaking and Steelmaking, 2007, 34, 83-88.	2.1	8
39	Phase Transformations in Two Mn-Si-Cr Dual Phase Steels. ISIJ International, 2006, 46, 1489-1494.	1.4	18
40	Microstructural Evolution during Gas Tungsten Arc, Laser and Resistance Spot Welding of Al-Containing Transformation Induced Plasticity (TRIP) Steel. Advanced Materials Research, 0, 89-91, 23-28.	0.3	2
41	Residual Stress Measurements in Multi-Pass Welded High Strength Steel Using Energy Dispersive Synchrotron X-Ray Diffraction. Advanced Materials Research, 0, 922, 177-182.	0.3	1
42	<i>In Situ</i> Synchrotron Diffraction Studies on Hot Deformation of Austenite in a High Strength Quenched and Tempered Structural Steel. Advanced Materials Research, 0, 922, 126-131.	0.3	2
43	Microstructure Evolution during Strain-Induced Transformation of Austenite in an Austempered Ductile Iron (ADI). Materials Science Forum, 0, 1016, 1199-1204.	0.3	0
44	Analysis of Metal Transfer Characteristics in Low-Heat Input Gas Metal Arc Welding of Aluminum Using Aluminum-Silicon Alloy Fillers. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 0, , .	2.1	0