

S Mahadevan

List of Publications by Year in Descending Order

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Version: 2024-04-10

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

40 papers	771 citations	14 h-index	27 g-index
42 ext. papers	881 ext. citations	2.4 avg, IF	3.69 L-index

#	Paper	IF	Citations
40	On the interaction of microstructural morphology with residual stress in fiber laser welding of austenitic stainless steel. <i>CIRP Journal of Manufacturing Science and Technology</i> , 2021 , 33, 158-175	3.4	9
39	Influence of prior deformation temperature on strain induced martensite formation and its effect on the tensile strengthening behaviour of type 304 SS studied by XRD/LPA. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 826, 141960	5.3	4
38	Effect of cutting process on the stress corrosion susceptibility of AISI 304L stainless steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2020 , 71, 1081-1090	1.6	0
37	Study on the Influence of Prior Cold Work on Precipitation Behavior of 304H Cu Stainless Steel During Isothermal Aging. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 5476-5482	2.3	2
36	Failure Analysis of Motorized Bellow-Sealed Valve of Sodium Loop in Fast Breeder Test Reactor. <i>Journal of Failure Analysis and Prevention</i> , 2019 , 19, 237-244	0.9	
35	Thermomechanical Analysis of A-TIG and MP-TIG Welding of 2.25Cr-1Mo Steel Considering Phase Transformation. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 4903-4917	1.6	5
34	Numerical Simulation and Experimental Validation of A-TIG Welding of 2.25Cr-1Mo Steel. <i>Lecture Notes on Multidisciplinary Industrial Engineering</i> , 2019 , 245-257	0.3	0
33	Correlation of Tensile Deformation-Induced Strain in HSLA Steel with Residual Stress Distribution. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 1103-1111	1.6	3
32	A new approach to increase the subsurface flaw detection capability of pulsed eddy current technique. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018 , 128, 516-526	4.6	9
31	Numerical simulation of multi-pass GTA welding of grade 91 steel. <i>Journal of Manufacturing Processes</i> , 2017 , 27, 87-97	5	28
30	Residual stress measurement round robin on an electron beam welded joint between austenitic stainless steel 316L(N) and ferritic steel P91. <i>International Journal of Pressure Vessels and Piping</i> , 2017 , 154, 41-57	2.4	32
29	Effect of Welding Processes on the Microstructure, Mechanical Properties and Residual Stresses of Plain 9Cr-1Mo Steel Weld Joints. <i>Journal of Materials Engineering and Performance</i> , 2017 , 26, 5938-5953	1.6	5
28	Aging behavior of 17-4 PH stainless steel studied using XRD/LPA for separating the influence of precipitation and dislocations on microstrain. <i>Journal of Materials Research</i> , 2017 , 32, 4263-4271	2.5	9
27	Thermomechanical Analysis of Preheat Effect on Grade P91 Steel During GTA Welding. <i>Materials and Manufacturing Processes</i> , 2016 , 31, 366-371	4.1	16
26	Influence of electron beam welding parameters on microstructure and Charpy impact properties of boron-added modified 9Cr-1Mo steel weld. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2016 , 60, 1141-1146	1.9	5
25	Precipitation-Induced Changes in Microstrain and Its Relation with Hardness and Tempering Parameter in 17-4 PH Stainless Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 3109-3118	2.3	13
24	Development of magnetic flux leakage technique for examination of steam generator tubes of prototype fast breeder reactor. <i>Annals of Nuclear Energy</i> , 2015 , 83, 57-64	1.7	15

23	Influence of PWHT on Toughness of High Chromium and Nickel Containing Martensitic Stainless Steel Weld Metals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 2554-2567	2.3	14
22	Residual stress studies on arc welding joints of naval steel (DMR-249A). <i>Journal of Manufacturing Processes</i> , 2015 , 20, 104-111	5	18
21	Experimental and finite element analysis of residual stress and distortion in GTA welding of modified 9Cr-1Mo steel. <i>Journal of Mechanical Science and Technology</i> , 2014 , 28, 5095-5105	1.6	33
20	Modeling, Prediction and Validation of Thermal Cycles, Residual Stresses and Distortion in Type 316 LN Stainless Steel Weld Joint made by TIG Welding Process. <i>Procedia Engineering</i> , 2014 , 86, 767-774		12
19	Size distribution of magnetic iron oxide nanoparticles using WarrenAverbach XRD analysis. <i>Journal of Physics and Chemistry of Solids</i> , 2012 , 73, 867-872	3.9	18
18	Nondestructive assessment of tensile properties of cold worked AISI type 304 stainless steel using nonlinear ultrasonic technique. <i>Journal of Materials Processing Technology</i> , 2011 , 211, 538-544	5.3	49
17	Influence of crack length on crack depth measurement by an alternating current potential drop technique. <i>Measurement Science and Technology</i> , 2010 , 21, 105702	2	12
16	Influence of Co ²⁺ Ion Concentration on the Size, Magnetic Properties, and Purity of CoFe ₂ O ₄ Spinel Ferrite Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 6334-6341	3.8	140
15	Microstructural characterization of M250 grade maraging steel using nonlinear ultrasonic technique. <i>Journal of Materials Science</i> , 2010 , 45, 6719-6726	4.3	20
14	Three-Dimensional Finite Element Modeling of Remote Field Eddy Current Technique for Detection of Localized Defects. <i>Research in Nondestructive Evaluation</i> , 2009 , 20, 145-158	0.9	6
13	X-ray Diffraction Based Residual Stress Measurements for Assessment of Fatigue Damage and Rejuvenation Process for Undercarriages of Aircrafts. <i>Journal of Nondestructive Evaluation</i> , 2009 , 28, 157-162	2.1	10
12	Phonon confinement in stressed silicon nanocluster. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 5604-7	1.3	17
11	LATTICE MISFIT MEASUREMENT IN INCONEL 625 BY X-RAY DIFFRACTION TECHNIQUE. <i>International Journal of Modern Physics B</i> , 2008 , 22, 3977-3985	1.1	17
10	X-Ray Diffraction Profile Analysis for Characterizing Isothermal Aging Behavior of M250 Grade Maraging Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008 , 39, 1978-1984	2.3	11
9	X-ray diffraction-based characterization of magnetite nanoparticles in presence of goethite and correlation with magnetic properties. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007 , 39, 20-25	3	44
8	Effect of initial pH and temperature of iron salt solutions on formation of magnetite nanoparticles. <i>Materials Chemistry and Physics</i> , 2007 , 103, 168-175	4.4	176
7	Design, fabrication and characterization of an x-ray bolometer for pulsed plasma x-ray sources. <i>Measurement Science and Technology</i> , 2005 , 16, 2287-2291	2	2
6	A pulsed electron gun for the Plane Wave Transformer Linac. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003 , 496, 26-32	1.2	

5	Improved version of the triode electron gun. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1999 , 438, 573-576	1.2	1
4	Research activities of photolithography by synchrotron radiation from Indus-1 and Indus-2. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1998 , 405, 500-505	1.2	
3	High voltage electron gun for linacs. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1996 , 383, 267-271	1.2	8
2	Developmental Techniques and Electron Optical Studies of High Voltage, High Current Electron Guns. <i>IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India)</i> , 1992 , 9, 46-50	1.5	2
1	Acoustic Emission during Press-Brake Bending of SS 304L Sheets and its Correlation with Residual Stress Distribution after Bending. <i>Journal of Materials Engineering and Performance</i> , 1	1.6	4