

Ian M Richardson

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/4144068/ian-m-richardson-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

44
papers

868
citations

16
h-index

29
g-index

47
ext. papers

1,023
ext. citations

4.1
avg, IF

4.32
L-index

#	Paper	IF	Citations
44	The influence of laser characteristics on internal flow behaviour in laser melting of metallic substrates. <i>Materials and Design</i> , 2022 , 214, 110385	8.1	0
43	The Effect of Groove Shape on Molten Metal Flow Behaviour in Gas Metal Arc Welding. <i>Materials</i> , 2021 , 14,	3.5	2
42	Numerical study of molten metal melt pool behaviour during conduction-mode laser spot melting. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 105304	3	8
41	The effects of process parameters on melt-pool oscillatory behaviour in gas tungsten arc welding. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 275303	3	2
40	A simulation-based approach to characterise melt-pool oscillations during gas tungsten arc welding. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 164, 120535	4.9	9
39	A review of wire arc additive manufacturing: development, principles, process physics, implementation and current status. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 473001	3	10
38	Applicability Study of Pulsed Laser Beam Welding on Ferritic-Martensitic ODS Eurofer Steel. <i>Metals</i> , 2020 , 10, 736	2.3	
37	Sensitivity of Numerical Predictions to the Permeability Coefficient in Simulations of Melting and Solidification Using the Enthalpy-Porosity Method. <i>Energies</i> , 2019 , 12, 4360	3.1	21
36	Revealing internal flow behaviour in arc welding and additive manufacturing of metals. <i>Nature Communications</i> , 2018 , 9, 5414	17.4	93
35	Microstructural characterisation of double pulse resistance spot welded advanced high strength steel. <i>Science and Technology of Welding and Joining</i> , 2017 , 22, 545-554	3.7	34
34	An integrated model for the post-solidification shape and grain morphology of fusion welds. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 85, 667-678	4.9	13
33	Residual Stress Measurements in Multi-Pass Welded High Strength Steel Using Energy Dispersive Synchrotron X-Ray Diffraction. <i>Advanced Materials Research</i> , 2014 , 922, 177-182	0.5	
32	In Situ Synchrotron Diffraction Studies on Hot Deformation of Austenite in a High Strength Quenched and Tempered Structural Steel. <i>Advanced Materials Research</i> , 2014 , 922, 126-131	0.5	2
31	Synchrotron Diffraction Studies on the Transformation Strain in a High Strength Quenched and Tempered Structural Steel. <i>Materials Science Forum</i> , 2014 , 777, 231-236	0.4	
30	Effect of enhanced heat and mass transport and flow reversal during cool down on weld pool shapes in laser spot welding of steel. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 66, 879-888	4.9	38
29	In situ synchrotron diffraction studies on the temperature-dependent plane-specific elastic constants in a high-strength quenched and tempered structural steel. <i>Scripta Materialia</i> , 2013 , 69, 187-190	5.6	14
28	The effect of tensile deformation by in situ ultrasonic treatment on the microstructure of low-carbon steel. <i>Acta Materialia</i> , 2013 , 61, 1592-1602	8.4	71

27	Multiscale, Multiphysics Numerical Modeling of Fusion Welding with Experimental Characterization and Validation. <i>Jom</i> , 2013 , 65, 99-106	2.1	10
26	Kinetics of bainitic transformation and transformation plasticity in a high strength quenched and tempered structural steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 559, 86-95	5.3	19
25	Residual and bending stress measurements by X-ray diffraction and synchrotron diffraction analysis in silicon solar cells 2012 ,		3
24	Experimental and Numerical Investigation of Residual Stress and Distortion Control during Welding of AISI-316L Plates. <i>Materials Science Forum</i> , 2012 , 706-709, 2950-2955	0.4	1
23	Numerical Investigation of the Influence of Microstructure on the Residual Stress Distribution and Distortion in DP600 Welds. <i>Materials Science Forum</i> , 2011 , 681, 79-84	0.4	1
22	Microstructure and mechanical properties of aluminum back contact layers. <i>Solar Energy Materials and Solar Cells</i> , 2011 , 95, 93-96	6.4	16
21	Effect of silicon solar cell processing parameters and crystallinity on mechanical strength. <i>Solar Energy Materials and Solar Cells</i> , 2011 , 95, 97-100	6.4	34
20	Fatigue Performance of Laser Brazes in Advanced High Strength Steels. <i>Materials Science Forum</i> , 2010 , 638-642, 3254-3259	0.4	4
19	Influence of the Hardening Model on the Predicted Welding Distortion of DP600 Lap Joints. <i>Materials Science Forum</i> , 2010 , 638-642, 3710-3715	0.4	
18	Microstructural Evolution during Gas Tungsten Arc, Laser and Resistance Spot Welding of Al-Containing Transformation Induced Plasticity (TRIP) Steel. <i>Advanced Materials Research</i> , 2010 , 89-91, 23-28	0.5	2
17	Application of X-ray computed tomography in silicon solar cells 2010 ,		2
16	Effect of microstructure and processing parameters on mechanical strength of multicrystalline silicon solar cells 2010 ,		4
15	Quantitative Analysis of Microstructural Constituents in Welded Transformation-Induced-Plasticity Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010 , 41, 431-439	2.3	16
14	Fatigue properties of laser-brazed joints of Dual Phase and TRansformation Induced Plasticity steel with a copperaluminium consumable. <i>Materials & Design</i> , 2010 , 31, 3922-3928		11
13	The effect of oxygen on transitional Marangoni flow in laser spot welding. <i>Acta Materialia</i> , 2010 , 58, 6345-6357	8.4	71
12	Heat distribution in resistance upset butt welding. <i>Journal of Materials Processing Technology</i> , 2009 , 209, 2715-2722	5.3	11
11	A study on the influence of clamping on welding distortion. <i>Computational Materials Science</i> , 2009 , 45, 999-1005	3.2	60
10	Modeling buckling distortion of DP600 overlap joints due to gas metal arc welding and the influence of the mesh density. <i>Computational Materials Science</i> , 2009 , 46, 977-986	3.2	23

9	Observations on Droplet and Arc Behaviour during Pulsed GMAW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2009 , 53, R171-R180	1.9	11
8	Phase-field modelling and synchrotron validation of phase transformations in martensitic dual-phase steel. <i>Acta Materialia</i> , 2007 , 55, 601-614	8.4	30
7	Microstructure and mechanical properties of AA7075(T6) hybrid laser/GMA welds. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 459, 94-100	5.3	72
6	Physically based modelling of phase transformations during welding of low-carbon steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 427, 223-231	5.3	42
5	Mechanism and possible solution for transverse solidification cracking in laser welding of high strength aluminium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 429, 287-294	5.3	59
4	Kinetics of the martensitic transformation in low-alloy steel studied by means of acoustic emission. <i>Acta Materialia</i> , 2003 , 51, 4183-4196	8.4	41
3	The Influence of Surface Deformation on Thermocapillary Flow Instabilities in Low Prandtl Melting Pools with Surfactants		5
2	Mechanical Strength of Silicon Solar Wafers Characterized by Ring-on-Ring Test in Combination with Digital Image Correlation		1
1	Fracture Toughness of Welded Thick Section High Strength Steels and Influencing Factors		2