Jesper Henri Hattel

List of Publications by Year
in descending order

212 papers	5,005 citations	94433 37 h-index	128289 60 g-index
215 all docs	215 docs citations	215 times ranked	3310 citing authors

#	Article	IF	Citations
1	Material flow in butt friction stir welds in AA2024-T3. Acta Materialia, 2006, 54, 1199-1209.	7.9	308
2	A Review on the Mechanical Modeling of Composite Manufacturing Processes. Archives of Computational Methods in Engineering, 2017, 24, 365-395.	10.2	206
3	High-temperature lead-free solder alternatives. Microelectronic Engineering, 2011, 88, 981-989.	2.4	167
4	Keyhole-induced porosities in Laser-based Powder Bed Fusion (L-PBF) of Ti6Al4V: High-fidelity modelling and experimental validation. Additive Manufacturing, 2019, 30, 100835.	3.0	144
5	Multiphysics modelling of lack-of-fusion voids formation and evolution in IN718 made by multi-track/multi-layer L-PBF. International Journal of Heat and Mass Transfer, 2019, 139, 95-114.	4.8	135
6	Ceramic tape casting: A review of current methods and trends with emphasis on rheological behaviour and flow analysis. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 212, 39-61.	3.5	134
7	Modelling heat flow around tool probe in friction stir welding. Science and Technology of Welding and Joining, 2005, 10, 176-186.	3.1	114
8	Development of Auâ€“Ge based candidate alloys as an alternative to high-lead content solders. Journal of Alloys and Compounds, 2010, 490, 170-179.	5.5	111
9	Flow induced particle migration in fresh concrete: Theoretical frame, numerical simulations and experimental results on model fluids. Cement and Concrete Research, 2012, 42, 633-641.	11.0	106
10	Process induced residual stresses and distortions in pultrusion. Composites Part B: Engineering, 2013, 51, 148-161.	12.0	95
11	Design of lead-free candidate alloys for high-temperature soldering based on the Auâ€“Sn system. Materials & Design, 2010, 31, 4638-4645.	5.1	84
12	Two-dimensional mathematical model of a reciprocating room-temperature Active Magnetic Regenerator. International Journal of Refrigeration, 2008, 31, 432-443.	3.4	83
13	The effect of hardening laws and thermal softening on modeling residual stresses in FSW of aluminum alloy 2024-T3. Journal of Materials Processing Technology, 2013, 213, 477-486.	6.3	83
14	Detailed numerical modeling of a linear parallel-plate Active Magnetic Regenerator. International Journal of Refrigeration, 2009, 32, 1478-1486.	3.4	79
15	Achieving high ductility in a selectively laser melted commercial pure-titanium via in-situ grain refinement. Scripta Materialia, 2021, 191, 155-160.	5.2	65
16	The demagnetizing field of a nonuniform rectangular prism. Journal of Applied Physics, 2010, 107, .	2.5	64
17	A systematic investigation of the effects of process parameters on heat and fluid flow and metallurgical conditions during laser-based powder bed fusion of Ti6Al4V alloy. International Journal of Heat and Mass Transfer, 2019, 139, 213-230.	4.8	64
18	Design Optimization of a 5 MW Floating Offshore Vertical-axis Wind Turbine. Energy Procedia, 2013, 35, 22-32.	1.8	62

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19	Modelling the pultrusion process of an industrial L-shaped composite profile. Composite Structures, 2014, 118, 37-48.	5.8	62
20	The effect of thermal contact resistance on the thermosetting pultrusion process. Composites Part B: Engineering, 2013, 45, 995-1000.	12.0	53
21	Investigation of process induced warpage for pultrusion of a rectangular hollow profile. Composites Part B: Engineering, 2015, 68, 365-374.	12.0	53
22	Material characterization of a polyester resin system for the pultrusion process. Composites Part B: Engineering, 2014, 64, 194-201.	12.0	52
23	An integrated numerical model of the spray forming process. Acta Materialia, 2002, 50, 4075-4091.	7.9	49
24	Reliability Estimation of the Pultrusion Process Using the First-Order Reliability Method (FORM). Applied Composite Materials, 2013, 20, 639-653.	2.5	48
25	A review of multi-scale and multi-physics simulations of metal additive manufacturing processes with focus on modeling strategies. Additive Manufacturing, 2021, 47, 102278.	3.0	48
26	1st DeepWind 5 MW Baseline design. Energy Procedia, 2012, 24, 27-35.	1.8	47
27	A comprehensive parameter study of an active magnetic regenerator using a 2D numerical model. International Journal of Refrigeration, 2010, 33, 753-764.	3.4	46
28	Optimisation of process parameters in friction stir welding based on residual stress analysis: A feasibility study. Science and Technology of Welding and Joining, 2010, 15, 369-377.	3.1	45
29	A numerical model for predicting the thermomechanical conditions during hydration of early-age concrete. Applied Mathematical Modelling, 2003, 27, 1-26.	4.2	42
30	Modeling of high temperature- and diffusion-controlled die soldering in aluminum high pressure die casting. Journal of Materials Processing Technology, 2009, 209, 4051-4061.	6.3	41
31	Optimization of the Thermosetting Pultrusion Process by Using Hybrid and Mixed Integer Genetic Algorithms. Applied Composite Materials, 2013, 20, 449-463.	2.5	41
32	Outcomes of the DeepWind Conceptual Design. Energy Procedia, 2015, 80, 329-341.	1.8	40
33	Robust simulations of viscoelastic flows at high Weissenberg numbers with the streamfunction/log-conformation formulation. Journal of Non-Newtonian Fluid Mechanics, 2015, 223, 37-61.	2.4	40
34	Multiple crack growth prediction in AA2024-T3 friction stir welded joints, including manufacturing effects. International Journal of Fatigue, 2016, 90, 69-77.	5.7	40
35	Thermo-Chemical Modelling Strategies for the Pultrusion Process. Applied Composite Materials, 2013, 20, 1247-1263.	2.5	39
36	Numerical simulation of the planar extrudate swell of pseudoplastic and viscoelastic fluids with the streamfunction and the VOF methods. Journal of Non-Newtonian Fluid Mechanics, 2018, 252, 1-18.	2.4	39

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37	DeepWind-from Idea to 5 MW Concept. Energy Procedia, 2014, 53, 23-33.	1.8	38
38	Cellwise conservative unsplit advection for the volume of fluid method. Journal of Computational Physics, 2015, 283, 582-608.	3.8	36
39	Flow visualization and simulation of the filling process during injection molding. CIRP Journal of Manufacturing Science and Technology, 2017, 16, 12-20.	4.5	36
40	Computational Approaches for Modeling the Multiphysics in Pultrusion Process. Advances in Mechanical Engineering, 2013, 5, 301875.	1.6	35
41	An evaluation of interface capturing methods in a VOF based model for multiphase flow of a non-Newtonian ceramic in tape casting. Applied Mathematical Modelling, 2014, 38, 3222-3232.	4.2	34
42	A fundamental investigation of thermo-capillarity in laser powder bed fusion of metals and alloys. International Journal of Heat and Mass Transfer, 2021, 166, 120766.	4.8	34
43	Preparation and Properties of Mg–Cu–Y–Al Bulk Amorphous Alloys. Materials Transactions, JIM, 2000, 41, 1435-1442.	0.9	33
44	Modelling residual stresses in friction stir welding of Al alloysâ€"a review of possibilities and future trends. International Journal of Advanced Manufacturing Technology, 2015, 76, 1793-1805.	3.0	32
45	Three-dimensional local residual stress and orientation gradients near graphite nodules in ductile cast iron. Acta Materialia, 2016, 121, 173-180.	7.9	32
46	Vortex behavior of the Oldroyd-B fluid in the 4-1 planar contraction simulated with the streamfunctionâ€"log-conformation formulation. Journal of Non-Newtonian Fluid Mechanics, 2016, 237, 1-15.	2.4	32
47	Numerical optimisation of friction stir welding: Review of future challenges. Science and Technology of Welding and Joining, 2011, 16, 318-324.	3.1	31
48	Patterns of gravity induced aggregate migration during casting of fluid concretes. Cement and Concrete Research, 2012, 42, 1571-1578.	11.0	31
49	Material characterization of a pultrusion specific and highly reactive polyurethane resin system: Elastic modulus, rheology, and reaction kinetics. Composites Part B: Engineering, 2021, 207, 108543.	12.0	31
50	Development of gold based solder candidates for flip chip assembly. Microelectronics Reliability, 2009, 49, 323-330.	1.7	30
51	A quasi-stationary numerical model of atomized metal droplets. II: Prediction and assessment. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 431-446.	2.0	29
52	Numerical Model based Reliability Estimation of Selective Laser Melting Process. Physics Procedia, 2014, 56, 379-389.	1.2	29
53	On the isotropic elastic constants of graphite nodules in ductile cast iron: Analytical and numerical micromechanical investigations. Mechanics of Materials, 2016, 96, 138-150.	3.2	28
54	Modeling the elastic behavior of ductile cast iron including anisotropy in the graphite nodules. International Journal of Solids and Structures, 2016, 100-101, 523-535.	2.7	28

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55	Modelling the evolution of composition-and stress-depth profiles in austenitic stainless steels during low-temperature nitriding. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 025003.	2.0	28
56	A control volume-based finite difference method for solving the equilibrium equations in terms of displacements. Applied Mathematical Modelling, 1995, 19, 210-243.	4.2	27
57	Numerical modelling of thin-walled hypereutectic ductile cast iron parts. Acta Materialia, 2006, 54, 5103-5114.	7.9	27
58	A corrosion investigation of solder candidates for high-temperature applications. Jom, 2009, 61, 59-65.	1.9	27
59	Evaluation of the viscoelastic behaviour and glass/mould interface friction coefficient in the wafer based precision glass moulding. Journal of Materials Processing Technology, 2014, 214, 1427-1435.	6.3	27
60	Numerical modelling of rapid solidification. Modelling and Simulation in Materials Science and Engineering, 1997, 5, 451-472.	2.0	26
61	A quasi-stationary numerical model of atomized metal droplets. I: Model formulation. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 413-430.	2.0	26
62	Three-dimensional numerical modeling of an induction heated injection molding tool with flow visualization. International Journal of Advanced Manufacturing Technology, 2016, 85, 643-660.	3.0	26
63	Microstructure and residual elastic strain at graphite nodules in ductile cast iron analyzed by synchrotron X-ray microdiffraction. Acta Materialia, 2019, 167, 221-230.	7.9	26
64	Coupled Atomization and Spray Modelling in the Spray Forming Process using OpenFoam. Engineering Applications of Computational Fluid Mechanics, 2009, 3, 471-486.	3.1	25
65	Mechanical Modelling of Pultrusion Process: 2D and 3D Numerical Approaches. Applied Composite Materials, 2015, 22, 99-118.	2.5	25
66	Multiphysics modelling of manufacturing processes: A review. Advances in Mechanical Engineering, 2018, 10, 168781401876618.	1.6	25
67	Impact of micro-scale residual stress on in-situ tensile testing of ductile cast iron: Digital volume correlation vs. model with fully resolved microstructure vs. periodic unit cell. Journal of the Mechanics and Physics of Solids, 2019, 125, 714-735.	4.8	25
68	Cellular Scanning Strategy for Selective Laser Melting: Capturing Thermal Trends with a Low-Fidelity, Pseudo-Analytical Model. Mathematical Problems in Engineering, 2014, 2014, 1-14.	1.1	24
69	Experimental investigation of tensile strength of friction stir welded butt joints on PMMA. Materials Today Communications, 2018, 17, 238-245.	1.9	24
70	Thermal modelling of the multi-stage heating system with variable boundary conditions in the wafer based precision glass moulding process. Journal of Materials Processing Technology, 2012, 212, 1771-1779.	6.3	23
71	Numerical and experimental analysis of resin-flow, heat-transfer, and cure in a resin-injection pultrusion process. Composites Part A: Applied Science and Manufacturing, 2021, 143, 106231.	7.6	22
72	Pultrusion of a vertical axis wind turbine blade part-I: 3D thermo-chemical process simulation. International Journal of Material Forming, 2015, 8, 379-389.	2.0	21

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73	On the role of the powder stream on the heat and fluid flow conditions during Directed Energy Deposition of maraging steelâ€"Multiphysics modeling and experimental validation. Additive Manufacturing, 2021, 43, 102021.	3.0	21
74	A unified spray forming model for the prediction of billet shape geometry. Acta Materialia, 2004, 52, 5275-5288.	7.9	20
75	A micro-mechanical analysis of thermo-elastic properties and local residual stresses in ductile iron based on a new anisotropic model for the graphite nodules. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 055012.	2.0	20
76	Thermo-fluid-metallurgical modelling of the selective laser melting process chain. Procedia CIRP, 2018, 74, 87-91.	1.9	20
77	Part-scale thermo-mechanical modelling of distortions in Laser Powder Bed Fusion â€“ Analysis of the sequential flash heating method with experimental validation. Additive Manufacturing, 2020, 36, 101508.	3.0	20
78	Investigation on the Effect of Sulfur and Titanium on the Microstructure of Lamellar Graphite Iron. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5134-5146.	2.2	19
79	Quasi-steady state power law model for flow of (La_{0Â·85}Sr_{0Â·15})_{0Â·9}MnO₃ ceramic slurry in tape casting. Materials Science and Technology, 2013, 29, 1080-1087.	1.6	19
80	X-ray CT and image analysis methodology for local roughness characterization in cooling channels made by metal additive manufacturing. Additive Manufacturing, 2020, 32, 101032.	3.0	19
81	The Internal Stress Evaluation of Pultruded Blades for a Darrieus Wind Turbine. Key Engineering Materials, 0, 554-557, 2127-2137.	0.4	18
82	Utilizing Multiple Objectives for the Optimization of the Pultrusion Process Based on a Thermo-Chemical Simulation. Key Engineering Materials, 0, 554-557, 2165-2174.	0.4	18
83	Modelling Cr depletion under a growing Cr₂O₃layer on austenitic stainless steel: the influence of grain boundary diffusion. Modelling and Simulation in Materials Science and Engineering, 2009, 17, 035009.	2.0	17
84	Multi-Criteria Optimization in Friction Stir Welding Using a Thermal Model with Prescribed Material Flow. Materials and Manufacturing Processes, 2013, 28, 816-822.	4.7	17
85	Numerical Modeling of the Side Flow in Tape Casting of a Nonâ€Newtonian Fluid. Journal of the American Ceramic Society, 2013, 96, 1414-1420.	3.8	17
86	Precision Glass Molding: Validation of an <scp>FE</scp> Model for Thermoâ€Mechanical Simulation. International Journal of Applied Glass Science, 2014, 5, 297-312.	2.0	17
87	Particle migration using local variation of the viscosity (LVOV) model in flow of a non-Newtonian fluid for ceramic tape casting. Chemical Engineering Research and Design, 2016, 109, 226-233.	5.6	17
88	Physical modeling and numerical simulation of V-die forging ingot with central void. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2014, 228, 2347-2356.	2.1	16
89	Characterization of channels made by laser powder bed fusion and binder jetting using X-ray CT and image analysis. Additive Manufacturing, 2020, 36, 101445.	3.0	16
90	A Casting Yield Optimization Case Study: Forging Ram. International Journal of Metalcasting, 2010, 4, 61-76.	1.9	15

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91	Life cycle strain monitoring in glass fibre reinforced polymer laminates using embedded fibre Bragg grating sensors from manufacturing to failure. Journal of Composite Materials, 2014, 48, 365-381.	2.4	15
92	Pultrusion of a vertical axis wind turbine blade part-II: combining the manufacturing process simulation with a subsequent loading scenario. International Journal of Material Forming, 2015, 8, 367-378.	2.0	15
93	Uncovering the local inelastic interactions during manufacture of ductile cast iron: How the substructure of the graphite particles can induce residual stress concentrations in the matrix. Journal of the Mechanics and Physics of Solids, 2018, 111, 333-357.	4.8	15
94	State-of-the-Art Multi-Objective Optimisation of Manufacturing Processes Based on Thermo-Mechanical Simulations. , 2011, , 71-133.		15
95	In situ measurement using FBGs of processâ€induced strains during curing of thick glass/epoxy laminate plate: experimental results and numerical modelling. Wind Energy, 2013, 16, 1241-1257.	4.2	14
96	Threeâ€Dimensional Modeling of Glass Lens Molding. International Journal of Applied Glass Science, 2015, 6, 182-195.	2.0	14
97	Modeling and simulation of the deformation process of PTFE flexible stamps for nanoimprint lithography on curved surfaces. Journal of Materials Processing Technology, 2015, 216, 418-429.	6.3	14
98	Permeability and compaction behaviour of air-texturised glass fibre rovings: A characterisation study. Journal of Composite Materials, 2020, 54, 4241-4252.	2.4	14
99	Mesoscale Process Modeling of a Thick Pultruded Composite with Variability in Fiber Volume Fraction. Materials, 2021, 14, 3763.	2.9	14
100	Optimization of friction stir welding using space mapping and manifold mappingâ€"an initial study of thermal aspects. Structural and Multidisciplinary Optimization, 2009, 38, 289-299.	3.5	13
101	Modeling coupled heat and mass transfer during drying in tape casting with a simple ceramicsâ€"water system. Drying Technology, 2016, 34, 244-253.	3.1	13
102	Numerical Modeling of AA2024-T3 Friction Stir Welding Process for Residual Stress Evaluation, Including Softening Effects. Key Engineering Materials, 2014, 611-612, 1675-1682.	0.4	12
103	Bingham plastic fluid flow model in tape casting of ceramics using two doctor blades â€“ analytical approach. Materials Science and Technology, 2014, 30, 283-288.	1.6	12
104	Drying of a tape-cast layer: Numerical modelling of the evaporation process in a graded/layered material. International Journal of Heat and Mass Transfer, 2016, 103, 1144-1154.	4.8	12
105	An axisymmetrical non-linear finite element model for induction heating in injection molding tools. Finite Elements in Analysis and Design, 2016, 110, 1-10.	3.2	12
106	Probabilistic analysis of a thermosetting pultrusion process. Science and Engineering of Composite Materials, 2016, 23, 67-76.	1.4	12
107	A study of laser surface modification of polymers: A comparison in air and water. Journal of Manufacturing Processes, 2018, 32, 432-437.	5.9	12
108	A 1-D analytical model for the thermally induced stresses in the mold surface during die casting. Applied Mathematical Modelling, 1994, 18, 550-559.	4.2	11

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109	A multi-objective optimization application in Friction Stir Welding: Considering thermo-mechanical aspects. , 2010, , .		11
110	Cellular scanning strategy for selective laser melting: evolution of optimal grid-based scanning path and parametric approach to thermal homogeneity. Proceedings of SPIE, 2013, , .	0.8	11
111	Thermo-coupled Surface Cauchyâ€“Born theory: An engineering finite element approach to modeling of nanowire thermomechanical response. Mechanics of Materials, 2016, 94, 46-52.	3.2	11
112	A methodology for online visualization of the energy flow in a machine tool. CIRP Journal of Manufacturing Science and Technology, 2017, 19, 138-146.	4.5	11
113	Humidity build-up in electronic enclosures exposed to different geographical locations by RC modelling and reliability prediction. Microelectronics Reliability, 2018, 82, 136-146.	1.7	11
114	Simulation of liquid composite moulding using a finite volume scheme and the level-set method. International Journal of Multiphase Flow, 2019, 118, 183-192.	3.4	11
115	Thermo-chemical-mechanical simulation of low temperature nitriding of austenitic stainless steel; inverse modelling of surface reaction rates. Surface and Coatings Technology, 2020, 381, 125145.	4.8	11
116	Thermo-mechanical modelling of stress relief heat treatments after laser-based powder bed fusion. Additive Manufacturing, 2021, 38, 101818.	3.0	11
117	Residual Stress in Expanded Austenite on Stainless Steel; Origin, Measurement, and Prediction. Materials Performance and Characterization, 2018, 7, 20170145.	0.3	11
118	Hybrid Search for Faster Production and Safer Process Conditions in Friction Stir Welding. Lecture Notes in Computer Science, 2010, , 603-612.	1.3	10
119	CFD simulation and statistical analysis of moisture transfer into an electronic enclosure. Applied Mathematical Modelling, 2017, 44, 246-260.	4.2	10
120	Integrated modelling in materials and process technology. Materials Science and Technology, 2008, 24, 137-148.	1.6	9
121	Modeling the constitutive and frictional behavior of PTFE flexible stamps for nanoimprint lithography. Microelectronic Engineering, 2013, 106, 1-8.	2.4	9
122	Temperature Dependence and Magnetic Properties of Injection Molding Tool Materials Used in Induction Heating. IEEE Transactions on Magnetics, 2015, 51, 1-7.	2.1	9
123	A computational model for heterogeneous heating during pulsed laser irradiation of polymers doped with light-absorbing microparticles. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	9
124	Investigation of the roughness variation along the length of LPBF manufactured straight channels. Nondestructive Testing and Evaluation, 2020, 35, 304-314.	2.1	9
125	Steady-state modelling and analysis of process-induced stress and deformation in thermoset pultrusion processes. Composites Part B: Engineering, 2021, 216, 108812.	12.0	9
126	Analysis of the equivalent indenter concept used to extract Youngâ€™s modulus from a nano-indentation test: some new insights into the Oliverâ€“Pharr method. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 045004.	2.0	8

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127	Modeling of nanosecond pulsed laser processing of polymers in air and water. Modelling and Simulation in Materials Science and Engineering, 2018, 26, 055005.	2.0	8
128	Simulation of resin-impregnation, heat-transfer and cure in a resin-injection pultrusion process. AIP Conference Proceedings, 2019, , .	0.4	8
129	Experimental investigation and thermo-mechanical modelling for tool life evaluation of photopolymer additively manufactured mould inserts in different injection moulding conditions. International Journal of Advanced Manufacturing Technology, 2019, 102, 403-420.	3.0	8
130	Numerical modeling of the mechanics of pultrusion. , 2020, , 173-195.		8
131	Thermo-mechanical modelling of aluminium cast parts during solution treatment. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 677-688.	2.0	7
132	Higher-level innovization: A case study from Friction Stir Welding process optimization. , 2011, , .		7
133	Elimination of Hot Tears in Steel Castings by Means of Solidification Pattern Optimization. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 609-626.	2.1	7
134	A thermo-electro-mechanical simulation model for hot wire cutting of EPS foam. International Journal of Machine Tools and Manufacture, 2016, 107, 50-59.	13.4	7
135	Simulating the DISAMATIC process using the discrete element method â€" a dynamical study of granular flow. Powder Technology, 2016, 303, 228-240.	4.2	7
136	Drying of a tape-cast layer: Numerical investigation of influencing parameters. International Journal of Heat and Mass Transfer, 2017, 108, 2229-2238.	4.8	7
137	Revisiting Models for Spheroidal Graphite Growth. Materials Science Forum, 0, 925, 118-124.	0.3	7
138	On the drying process of molded pulp products: Experiments and numerical modelling. Drying Technology, 2020, 38, 1644-1662.	3.1	7
139	Densification, microstructure, and mechanical properties of heat-treated MAR-M247 fabricated by Binder Jetting. Additive Manufacturing, 2021, 39, 101912.	3.0	7
140	A Feasibility Study of Lead Free Solders for Level 1 Packaging Applications. Journal of Microelectronics and Electronic Packaging, 2009, 6, 75-82.	0.7	7
141	Numerical Modeling of Fluid Flow in the Tape Casting Process. , 2011, , .		6
142	Modeling of the interface behavior in tape casting of functionally graded ceramics for magnetic refrigeration parts. International Journal of Refrigeration, 2013, 36, 2403-2409.	3.4	6
143	Selecting the optimum engineering model for the frequency response of fcc nanowire resonators. Applied Mathematical Modelling, 2017, 44, 236-245.	4.2	6
144	Laser additive manufacturing of multimaterial tool inserts: a simulation-based optimization study. Proceedings of SPIE, 2017, , .	0.8	6

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145	Modelling the effect of coating on the stresses and microstructure evolution in chill casting of wind turbine main shafts. Wind Energy, 2017, 20, 1635-1643.	4.2	6
146	A robustness analysis of the bonding process of joints in wind turbine blades. International Journal of Adhesion and Adhesives, 2018, 85, 281-285.	2.9	6
147	Unraveling compacted graphite evolution during solidification of cast iron using in-situ synchrotron X-ray tomography. Carbon, 2021, 184, 799-810.	10.3	6
148	Elucidation of dross formation in laser powder bed fusion at down-facing surfaces: Phenomenon-oriented multiphysics simulation and experimental validation. Additive Manufacturing, 2022, 50, 102551.	3.0	6
149	The relation between experiments and modeling of rapidly solidified 12Crâ€“Moâ€“V stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 251, 23-29.	5.6	5
150	Improvement in Surface Characterisitcs of Polymers for Subsequent Electroless Plating Using Liquid Assisted Laser Processing. Physics Procedia, 2016, 83, 211-217.	1.2	5
151	Assessment of the Contour Method for 2-D Cross Sectional Residual Stress Measurements of Friction Stir Welded Parts of AA2024-T3â€"Numerical and Experimental Comparison. Metals, 2017, 7, 508.	2.3	5
152	Investigation of the elastoplastic and fracture behavior of solid materials considering microstructural anisotropy: A discrete element modeling study. Computational Materials Science, 2019, 170, 109164.	3.0	5
153	Application of a Projection Method for Simulating Flow of a Shear-Thinning Fluid. Fluids, 2019, 4, 124.	1.7	5
154	Numerical Investigation into the Effect of Different Parameters on the Geometrical Precision in the Laser-Based Powder Bed Fusion Process Chain. Applied Sciences (Switzerland), 2020, 10, 3414.	2.5	5
155	Microstructure and Mechanical Properties of Friction Stir Welded AA6061/AA6061 + 40 vol% SiC Plates. Metals, 2021, 11, 206.	2.3	5
156	Numerical investigation into laser-based powder bed fusion of cantilevers produced in 300-grade maraging steel. Additive Manufacturing, 2022, 50, 102560.	3.0	5
157	An integrated numerical model for the prediction of Gaussian and billet shapes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 383, 184-189.	5.6	4
158	Stellite Failure on a P91 HP Valve â€" Failure Investigation and Modelling of Residual Stresses. Welding in the World, Le Soudage Dans Le Monde, 2006, 50, 40-51.	2.5	4
159	Interface Behavior in Functionally Graded Ceramics for the Magnetic Refrigeration: Numerical Modeling. Applied Mechanics and Materials, 0, 325-326, 1362-1367.	0.2	4
160	The Effect of Product Size on the Pulling Force in Pultrusion. Key Engineering Materials, 2014, 611-612, 1763-1770.	0.4	4
161	Multi-objective optimization of cellular scanning strategy in selective laser melting. , 2017, , .		4
162	Thermo-Electrical Mathematical Model for Prediction of Ni-Cr Hot-Wire Temperature in Free Air and Inside Small Circular Cavities. Heat Transfer Engineering, 2017, 38, 881-891.	1.9	4

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163	Hot-blade cutting of EPS foam for double-curved surfacesâ€"numerical simulation and experiments. International Journal of Advanced Manufacturing Technology, 2017, 93, 4253-4264.	3.0	4
164	Realistic design of laser powder bed fusion channels. Rapid Prototyping Journal, 2020, 26, 1827-1836.	3.2	4
165	Distance map based micromechanical analysis of the impact of matrix heterogeneities on the yield stress of nodular cast iron. Mechanics of Materials, 2020, 148, 103414.	3.2	4
166	Individual fibre inclination segmentation from X-ray computed tomography using principal component analysis. Journal of Composite Materials, 2022, 56, 83-98.	2.4	4
167	Optimization of casting process parameters for homogeneous aggregate distribution in self-compacting concrete: A feasibility study. , 2011, , .		3
168	Modelling and simulation of A segregates in steel castings using thermal criterion function Part I â€" Background and validation. Materials Science and Technology, 2012, 28, 872-878.	1.6	3
169	A Two-Phase Flow Solver for Incompressible Viscous Fluids, Using a Pure Streamfunction Formulation and the Volume of Fluid Technique. Defect and Diffusion Forum, 2014, 348, 9-19.	0.4	3
170	Integrated FEM-DBEM Simulation of Crack Propagation in AA2024-T3 FSW Butt Joints Considering Manufacturing Effects. Key Engineering Materials, 2015, 651-653, 877-882.	0.4	3
171	Cellular scanning strategy for selective laser melting: Generating reliable, optimized scanning paths and processing parameters. Proceedings of SPIE, 2015, , .	0.8	3
172	Semi-empirical prediction of moisture build-up in an electronic enclosure using analysis of variance (ANOVA). , 2016, , .		3
173	Reducing residual stresses and deformations in selective laser melting through multi-level multi-scale optimization of cellular scanning strategy. Proceedings of SPIE, 2016, , .	0.8	3
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