Maciej Pietrzyk

List of Publications by Year in descending order

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180 papers	2,133 citations	331538 21 h-index	395590 33 g-index
194 all docs	194 docs citations	194 times ranked	1076 citing authors

#	Article	IF	Citations
1	Metal forming beyond shaping: Predicting and setting product properties. CIRP Annals - Manufacturing Technology, 2015, 64, 629-653.	1.7	134
2	Thermal-Mechanical Modelling of the Flat Rolling Process. , 1991, , .		121
3	Inverse analysis for identification of rheological and friction models in metal forming. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 6778-6798.	3.4	110
4	Analysis of work hardening and recrystallization during the hot working of steel using a statistically based internal variable model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 339, 1-9.	2.6	85
5	Through-process modelling of microstructure evolution in hot forming of steels. Journal of Materials Processing Technology, 2002, 125-126, 53-62.	3.1	49
6	Recent development in orbital forging technology. International Journal of Material Forming, 2008, 1, 387-390.	0.9	43
7	A study of the effect of the thermomechanical history on the mechanical properties of a high niobium steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 208, 249-259.	2.6	40
8	Finite element based model of structure development in the hot rolling process. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1990, 61, 603-607.	0.2	37
9	Development of a Computer Code for the Interpretation of Results of Hot Plane Strain Compression Tests.. ISIJ International, 2000, 40, 1230-1236.	0.6	36
10	Computer aided development of the levelling technology for flat products. CIRP Annals - Manufacturing Technology, 2011, 60, 291-294.	1.7	32
11	Development of the Multi-scale Analysis Model to Simulate Strain Localization Occurring During Material Processing. Archives of Computational Methods in Engineering, 2009, 16, 287-318.	6.0	31
12	Modelling of heat transfer, plastic flow and microstructural evolution during shape rolling. Journal of Materials Processing Technology, 1995, 53, 159-166.	3.1	30
13	Inverse analysis applied to the evaluation of material parameters in the history dependent flow stress equation in hot forming of metals. Journal of Materials Processing Technology, 1996, 60, 455-461.	3.1	30
14	Finite-element simulation of large plastic deformation. Journal of Materials Processing Technology, 2000, 106, 223-229.	3.1	30
15	Discrete micro-scale cellular automata model for modelling phase transformation during heating of dual phase steels. Archives of Civil and Mechanical Engineering, 2014, 14, 96-103.	1.9	29
16	Use of the computer simulation to predict mechanical properties of C-Mn steel, after thermomechanical processing. Journal of Materials Processing Technology, 1996, 60, 581-588.	3.1	28
17	Optimization of Cellular Automata Model for the Heating of Dual-Phase Steel by Genetic Algorithm and Genetic Programming. Materials and Manufacturing Processes, 2015, 30, 552-562.	2.7	28
18	Prediction of mechanical properties of heavy forgings. Journal of Materials Processing Technology, 1998, 80-81, 166-173.	3.1	27

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19	Numerical modeling and experimental identification of residual stresses in hot-rolled strips. Archives of Civil and Mechanical Engineering, 2016, 16, 125-134.	1.9	26
20	Microstructure evolution in metal forming processes. , 2012, , .		26
21	Perceptive comparison of mean and full field dynamic recrystallization models. Archives of Civil and Mechanical Engineering, 2016, 16, 569-589.	1.9	25
22	Modelling the Thermomechanical and Microstructural Evolution During Rolling of a Nb HSLA Steel.. ISIJ International, 1995, 35, 531-541.	0.6	23
23	From High Accuracy to High Efficiency in Simulations of Processing of Dual-Phase Steels. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 497-506.	1.0	23
24	Simulation of the behaviour of voids in steel plates during hot rolling. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1995, 66, 526-529.	0.2	22
25	Numerical solution of the diffusion equation with moving boundary applied to modelling of the austeniteâ€“ferrite phase transformation. Computational Materials Science, 2008, 44, 783-791.	1.4	22
26	Identification of Parameters in the History Dependent Constitutive Model for Steels. CIRP Annals - Manufacturing Technology, 2001, 50, 161-164.	1.7	21
27	Time and length scale issues in numerical modelling of dynamic recrystallization based on the multi space cellular automata method. Journal of Computational Science, 2016, 16, 98-113.	1.5	21
28	Identification of Rheological Parameters on the Basis of Various Types of Compression and Tension Tests. Steel Research International, 2005, 76, 131-137.	1.0	20
29	On the theory of the process of hot rolling of bimetal plate and sheet. Journal of Mechanical Working Technology, 1983, 8, 309-325.	0.1	19
30	Modelling the Evolution of the Microstructure of a Nb Steel.. ISIJ International, 1996, 36, 1094-1102.	0.6	18
31	Rheological Model for Simulation of Hot rolling of New Generation Steel Strips for Automotive Applications. Steel Research International, 2006, 77, 927-933.	1.0	18
32	Physical and Numerical Simulation of the Continuous Annealing of <scp>DP</scp> Steel Strips. Steel Research International, 2014, 85, 99-111.	1.0	18
33	Modelling of the influence of thermomechanical processing of Nb-microalloyed steel on the resulting mechanical properties. Journal of Materials Processing Technology, 1998, 80-81, 524-530.	3.1	17
34	Tool for optimal design of manufacturing chain based on metal forming. CIRP Annals - Manufacturing Technology, 2008, 57, 309-312.	1.7	17
35	Application of statistically similar representative volume element in numerical simulations of crash box stamping. Archives of Civil and Mechanical Engineering, 2012, 12, 126-132.	1.9	17
36	A study of heat transfer during flat rolling. International Journal for Numerical Methods in Engineering, 1990, 30, 1459-1469.	1.5	16

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37	Multi-scale rheological model for discontinuous phenomena in materials under deformation conditions. Computational Materials Science, 2007, 38, 685-691.	1.4	16
38	Application of inverse analysis with metamodelling for identification of metal flow stress. Canadian Metallurgical Quarterly, 2012, 51, 440-446.	0.4	16
39	Experimental and Numerical Simulations of Phase Transformations Occurring During Continuous Annealing of DP Steel Strips. Journal of Materials Engineering and Performance, 2016, 25, 1481-1491.	1.2	16
40	Die Shape Design and Evaluation of Microstructure Control in the Closed-die Axisymmetric Forging by Using FORGE2 Program.. ISIJ International, 1994, 34, 755-760.	0.6	15
41	Numerical identification of material model for Câ€“Mn steel using micro-indentation test. Materials Science and Technology, 2008, 24, 369-375.	0.8	15
42	Effective strategies of metamodelling of industrial metallurgical processes. Advances in Engineering Software, 2015, 89, 90-97.	1.8	15
43	Analysis of the flat-rolling process: one-dimensional and finite-element models. Journal of Materials Processing Technology, 1993, 39, 373-387.	3.1	14
44	An integrated computer model with applications for austenite-to-ferrite transformation during hot deformation of Nb-microalloyed steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 1509-1520.	1.1	14
45	New Possibilities of Achieving Ultrafine Grained Microstructure in Metals and Alloys Employing MaxStrain Technology. Solid State Phenomena, 2005, 101-102, 43-48.	0.3	14
46	The validation of a multiscale rheological model of discontinuous phenomena during metal rolling. Computational Materials Science, 2007, 41, 236-241.	1.4	14
47	Computer Aided Design of New Forging Technology for Crank Shafts. Steel Research International, 2011, 82, 187-194.	1.0	14
48	Conventional and Multiscale Modeling of Microstructure Evolution During Laminar Cooling of DP Steel Strips. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5835-5851.	1.1	14
49	Compositional heterogeneity in multiphase steels: Characterization and influence on local properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 827, 142078.	2.6	14
50	Modelling of plastic flow, heat transfer and microstructural evolution during rolling of eutectoid steel rods. Journal of Materials Processing Technology, 1996, 60, 589-596.	3.1	13
51	Identification of rheological parameters on the basis of various types of plastometric tests. Journal of Materials Processing Technology, 2002, 125-126, 150-154.	3.1	13
52	Three-dimensional interdiffusion under stress field in Fe-Ni-Cu alloys. Journal of Phase Equilibria and Diffusion, 2006, 27, 691-698.	0.5	13
53	Model of Residual Stresses in Hot-rolled Sheets with Taking into Account Relaxation Process and Phase Transformation. Procedia Engineering, 2014, 81, 108-113.	1.2	13
54	NUMERICAL MODELING OF PHASE TRANSFORMATION IN DUAL PHASE (DP) STEEL AFTER HOT ROLLING AND LAMINAR COOLING. International Journal for Multiscale Computational Engineering, 2014, 12, 397-410.	0.8	13

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55	The effect of the temperature rise of the roll on the simulation of the flat rolling process. Journal of Materials Processing Technology, 1990, 22, 177-190.	3.1	11
56	Multi billet extrusion technology for manufacturing bi-layered components. CIRP Annals - Manufacturing Technology, 2012, 61, 235-238.	1.7	11
57	Sensitivity Analysis of the Finite Difference 2-D Cellular Automata Model for Phase Transformation during Heating. ISIJ International, 2015, 55, 285-292.	0.6	11
58	Evolution of the microstructure in the hot rolling process. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1993, 64, 549-556.	0.2	10
59	Flow stress model accounting for the strain localization during plastic deformation of metals. CIRP Annals - Manufacturing Technology, 2004, 53, 235-238.	1.7	10
60	Sensitivity analysis of quantitative fracture criterion based on the results of the SICO test. Journal of Materials Processing Technology, 2006, 177, 296-299.	3.1	10
61	Material flow analysis in the incremetal forging technology. International Journal of Material Forming, 2010, 3, 931-934.	0.9	10
62	Sensitivity analysis for thickness uniformity of Al coating layer in extrusion of Mg/Al clad bar. International Journal of Advanced Manufacturing Technology, 2015, 80, 507-513.	1.5	10
63	Modelling and optimization of the manufacturing chain for rails. Procedia Engineering, 2017, 207, 2101-2106.	1.2	10
64	Selection of the best phase transformation model for optimization of manufacturing processes of pearlitic steel rails. Archives of Civil and Mechanical Engineering, 2019, 19, 535-546.	1.9	10
65	Internal Variable and Cellular Automata-Finite Element Models of Heat Treatment. International Journal for Multiscale Computational Engineering, 2010, 8, 267-285.	0.8	10
66	Simulation of metal flow, heat transfer and structure evolution during hot rolling in square-oval-square series. Journal of Materials Processing Technology, 1992, 34, 509-516.	3.1	9
67	The effect of deformation zone geometry on internal defects arising in plane strain rolling. Journal of Materials Processing Technology, 1992, 32, 509-518.	3.1	9
68	Validation of Multi-scale Model Describing Microstructure Evolution in Steels. Steel Research International, 2008, 79, 652-659.	1.0	9
69	Model of Curvature of Crankshaft Blank during the Heat Treatment after Forging. Procedia Engineering, 2014, 81, 498-503.	1.2	9
70	Optimised recrystallisation model using multiobjective evolutionary and genetic algorithms and k-optimality approach. Materials Science and Technology, 2016, 32, 366-374.	0.8	9
71	Cellular automata model for prediction of crack initiation and propagation in hot forging tools. Archives of Civil and Mechanical Engineering, 2016, 16, 437-447.	1.9	9
72	The predictive capabilities of a thermal model of flat rolling. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1989, 60, 403-406.	0.2	8

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73	Influence of the lubricant on temperature distribution in the forging dies. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1995, 66, 424-429.	0.2	8
74	Identification of rheological parameters on the basis of plane strain compression tests on specimens of various initial dimensions. Computational Materials Science, 2006, 35, 92-97.	1.4	8
75	Optimal design of manufacturing chain based on forging for copper alloys, with product properties being the objective function. CIRP Annals - Manufacturing Technology, 2010, 59, 319-322.	1.7	8
76	Numerical Modeling of Microstructure Evolution During Forging of Crank Shafts. Steel Research International, 2012, 83, 808-816.	1.0	8
77	Model Of Relaxation Of Residual Stresses In Hot-Rolled Strips. Archives of Metallurgy and Materials, 2015, 60, 1935-1940.	0.6	8
78	Identification of Multi-inclusion Statistically Similar Representative Volume Element for Advanced High Strength Steels by Using Data Farming Approach. Procedia Computer Science, 2015, 51, 924-933.	1.2	8
79	Application of statistical representation of the microstructure to modeling of phase transformations in DP steels by solution of the diffusion equation. Procedia Manufacturing, 2018, 15, 1847-1855.	1.9	8
80	Computer-Integrated Platform for Automatic, Flexible, and Optimal Multivariable Design of a Hot Strip Rolling Technology Using Advanced Multiphase Steels. Metals, 2019, 9, 737.	1.0	8
81	Experimental substantiation of rigid-plastic finite-element modelling of three-dimensional forming processes. Journal of Mechanical Working Technology, 1989, 19, 295-303.	0.1	7
82	Deformation Heating During Cold Rolling of Aluminum Strips. Journal of Engineering Materials and Technology, Transactions of the ASME, 1991, 113, 69-74.	0.8	7
83	Modelling water cooling of steel strip during hot rolling. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1993, 64, 128-131.	0.2	7
84	Validation of the thermomechanical microstructural model for closed-die forging. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1994, 65, 94-99.	0.2	7
85	Analysis of the Stress Concentration in the Nanomultilayer Coatings Based on Digital Representation of the Structure. Archives of Metallurgy and Materials, 2011, 56, .	0.6	7
86	Optimization as a support for design of hot rolling technology of dual phase steel strips. , 2013, , .		7
87	Fields of strains around the inclusion of second phase in a uniform matrix undergoing plastic deformation. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1991, 62, 507-511.	0.2	6
88	Multistage compression of microalloyed steels - FE simulation and measurements of grain size. Journal of Materials Processing Technology, 1994, 45, 509-514.	3.1	6
89	Parallel finite element calculation of plastic deformations on Exemplar SPP1000 and on networked workstations. Journal of Materials Processing Technology, 1996, 60, 409-413.	3.1	6
90	Inverse Analysis of Tensile Tests. Steel Research International, 2005, 76, 807-814.	1.0	6

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91	Computer System for Identification of Material Models on the Basis of Plastometric Tests. Archives of Metallurgy and Materials, 2013, 58, 737-743.	0.6	6
92	Selection of Parameters of the Heat Treatment Thermal Cycle for Rails with Respect to the Wear Resistance. Steel Research International, 2014, 85, 1070-1082.	1.0	6
93	Sensitivity analysis on HPC systems with Scalarm platform. Concurrency Computation Practice and Experience, 2017, 29, e4025.	1.4	6
94	Identification of Rheological and Tribological Parameters. , 2002, , 227-258.		6
95	The Effect of Deformation in the Two-Phase Region of C-Mn and Microalloyed Steels on the Mechanical Behaviour of the Resulting Structure. European Physical Journal Special Topics, 1997, 07, C3-397-C3-402.	0.2	6
96	PREDICTION OF DISTRIBUTION OF MICROSTRUCTURAL PARAMETERS INMETALLIC MATERIALS DESCRIBED BY DIFFERENTIAL EQUATIONS WITH RECRYSTALLIZATION TERM. International Journal for Multiscale Computational Engineering, 2019, 17, 361-371.	0.8	6
97	Problem of stress and strain concentration in the entry and exit planes in the drawing process. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1988, 59, 275-278.	0.2	5
98	Some aspects of development of models for automatic control of rolling mills. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1990, 61, 359-364.	0.2	5
99	Validation of the finite-element model of the tube-sinking process. Journal of Materials Processing Technology, 1990, 22, 65-73.	3.1	5
100	Comparison of the predictive capabilities of mathematical models of the flat rolling process. Journal of Materials Processing Technology, 1992, 34, 85-92.	3.1	5
101	Behaviour of metal alloys during plastic deformation in partly liquid state. Journal of Materials Processing Technology, 1992, 34, 481-488.	3.1	5
102	Numerical simulation of the evolution of the microstructure in closed-die forging. Journal of Materials Processing Technology, 1994, 42, 217-226.	3.1	5
103	Theoretical and experimental analysis of drawing of steel rods covered with copper. Journal of Materials Processing Technology, 1994, 45, 401-406.	3.1	5
104	Multiscale model of dynamic recrystallization in hot rolling. International Journal of Material Forming, 2008, 1, 69-72.	0.9	5
105	The Material Flow Analysis in the Modified Orbital Forging Technology. Materials Science Forum, 0, 654-656, 1622-1625.	0.3	5
106	Validation of Cellular Automata Model of Dynamic Recrystallization. Key Engineering Materials, 2015, 651-653, 581-586.	0.4	5
107	Use of Artificial Intelligence in Classification of Mill Scale Defects. Steel Research International, 2015, 86, 266-277.	1.0	5
108	Development of the multi-scale model of cold rolling based on physical and numerical investigation of ferriticâ€“pearlitic steels. Archives of Civil and Mechanical Engineering, 2015, 15, 885-896.	1.9	5

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109	Problem of Identification of Phase Transformation Models Used in Simulations of Steels Processing. Journal of Materials Engineering and Performance, 2018, 27, 5725-5735.	1.2	5
110	ANALYSIS OF PREDICTIVE CAPABILITIES OF MULTISCALE PHASE TRANSFORMATION MODELS BASED ON THE NUMERICAL SOLUTION OF HEAT TRANSFER AND DIFFUSION EQUATIONS. International Journal for Multiscale Computational Engineering, 2017, 15, 413-430.	0.8	5
111	Evolution of the Microstructure in the Processes of Hot Compression and Drawing-Rolling.. ISIJ International, 1996, 36, 1199-1207.	0.6	5
112	Physical and Numerical Simulations of Closed Die Hot Forging and Heat Treatment of Forged Parts. Materials, 2021, 14, 15.	1.3	5
113	Inverse Problem in Stochastic Approach to Modelling of Microstructural Parameters in Metallic Materials during Processing. Mathematical Problems in Engineering, 2022, 2022, 1-15.	0.6	5
114	Stochastic model describing evolution of microstructural parameters during hot rolling of steel plates and strips. Archives of Civil and Mechanical Engineering, 2022, 22, .	1.9	5
115	Theoretical evaluation of the shape of the deformation zone in the press piercing mill. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1988, 59, 454-458.	0.2	4
116	Thermal-diffusion finite element analysis of nitriding process for arc plasma surface hardening of steel. Journal of Materials Processing Technology, 1996, 56, 412-421.	3.1	4
117	Accounting for the Inhomogeneity of Deformation in Identification of Microstructure Evolution Model / NiejednorodnoÅ›Ä‡ OdkształcenIa W I Dentyfikacji Modelu Rozwoju Mikrostruktury. Archives of Metallurgy and Materials, 2015, 60, 3087-3094.	0.6	4
118	Physical and numerical modelling of backward extrusion of Mg alloy with Al coating. CIRP Annals - Manufacturing Technology, 2015, 64, 253-256.	1.7	4
119	Effect of Carbon Distribution During the Microstructure Evolution of Dual-Phase Steels Studied Using Cellular Automata, Genetic Algorithms, and Experimental Strategies. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5890-5906.	1.1	4
120	Perceptive Review of Ferrous Micro/Macro Material Models for Thermo-Mechanical Processing Applications. Steel Research International, 2017, 88, 1700193.	1.0	4
121	Numerical simulation of manufacturing process chain for pearlitic and bainitic steel rails. Archives of Civil and Mechanical Engineering, 2020, 20, 1.	1.9	4
122	Criterion for microcrack resistance of multi-phase steels based on property gradient maps. CIRP Annals - Manufacturing Technology, 2021, 70, 243-246.	1.7	4
123	Development of Technique for Identification of Phase Transformation Model Parameters on the Basis of Measurementof Dilatometric Effect-Direct Problem. ISIJ International, 2006, 46, 147-154.	0.6	4
124	A graphical method for predicting roll force and torque. Journal of Mechanical Working Technology, 1984, 10, 67-75.	0.1	3
125	Efficient program for finite element calculations of plastic deformations in metal forming processes. Journal of Materials Processing Technology, 1994, 45, 677-681.	3.1	3
126	Analysis of Microstructure Evolution in the Forging Process of a Windmill Main Shaft. Steel Research International, 2006, 77, 583-589.	1.0	3

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127	The Stress Field in Cu-Fe-Ni Diffusion Couples. Defect and Diffusion Forum, 2007, 264, 47-54.	0.4	3
128	Inverse Analysis of Axisymmetrical Compression of HSLA Steel. Steel Research International, 2007, 78, 546-553.	1.0	3
129	Identification of rheological models and boundary conditions in metal forming. International Journal of Materials and Product Technology, 2010, 39, 388.	0.1	3
130	Multiscale CAFE Modelling of Dynamic Recrystallization. Materials Science Forum, 2010, 638-642, 2567-2572.	0.3	3
131	Model of Phase Transformation for Niobium Microalloyed Steels. Archives of Metallurgy and Materials, 2011, 56, .	0.6	3
132	Computer Aided Design of Manufacturing of Fasteners - Selection of the Best Production Chain. Key Engineering Materials, 2012, 504-506, 157-162.	0.4	3
133	Computer-Aided Design of Manufacturing Chain Based on Closed Die Forging for Hardly Deformable Cu-Based Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3281-3302.	1.1	3
134	Experimental Validation of the Carbon Diffusion Model for Transformation of Ferritic-Pearlitic Microstructure into Austenite during Continuous Annealing of Dual Phase Steels. Materials Science Forum, 0, 762, 699-704.	0.3	3
135	Digital material representation concept applied to investigation of local inhomogeneities during manufacturing of magnesium components for automotive applications. International Journal of Materials Research, 2017, 108, 3-11.	0.1	3
136	Selection of the optimization method for identification of phase transformation models for steels. Materials and Manufacturing Processes, 2017, 32, 1248-1259.	2.7	3
137	Material characterization for numerical simulation of manufacturing of automotive part made of magnesium alloy. Archives of Civil and Mechanical Engineering, 2020, 20, 1.	1.9	3
138	Sensitivity analysis, identification and validation of the dislocation density-based model for metallic materials. Metallurgical Research and Technology, 2021, 118, 317.	0.4	3
139	Complex Modelling Platform based on Digital Material Representation. , 2007, , 403-410.		3
140	Model-Based Approach To Study Hot Rolling Mills With Data Farming. , 2016, , .		3
141	Formulation, identification and validation of a stochastic internal variables model describing the evolution of metallic materials microstructure during hot forming. International Journal of Material Forming, 2022, 15, .	0.9	3
142	Some aspects of plastic deformation of metal alloys in partly liquid state. Journal of Materials Processing Technology, 1994, 45, 365-370.	3.1	2
143	Modelling of Fatigue Behaviour of Hard Multilayer Nanocoating System in Nanoimpact Test. Computational Methods in Applied Sciences (Springer), 2008, , 137-159.	0.1	2
144	Identification of ductile fracture criterion on basis of experimental data. Canadian Metallurgical Quarterly, 2014, 53, 469-477.	0.4	2

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145	Application of Metamodels to Identification of Metallic Materials Models. Advances in Materials Science and Engineering, 2016, 2016, 1-20.	1.0	2
146	Model of Curvature of Crankshaft Blank During Heat Treatment, Accounting for Phase Transformations. Steel Research International, 2016, 87, 519-528.	1.0	2
147	Computer system for identification of tool wear model in hot forging. MATEC Web of Conferences, 2016, 80, 11006.	0.1	2
148	Comparison of Numerical Simulation and Experiment for the Microstructure Development of a Cold-Rolled Multiphase Steel during Annealing. Materials Science Forum, 0, 854, 167-173.	0.3	2
149	Numerical Modeling of Phase Transformations in Dual-Phase Steels Using Level Set and SSRVE Approaches. Materials, 2021, 14, 5363.	1.3	2
150	Physical and Numerical Simulations for Predicting Distribution of Microstructural Features during Thermomechanical Processing of Steels. Materials, 2022, 15, 1660.	1.3	2
151	Correlating the microstructural heterogeneity with local formability of coldâ€rolled DP and CP steels through hardness gradients. Steel Research International, 0, , .	1.0	2
152	Die Kraftparameter des Verfahrens zum Walzen von QuadratknÃ¼ppeln in Oval- und Rautenkalibern. Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1979, 50, 335-340.	0.1	1
153	Electro-Mechano-Chemistry; Transport Problem in Four Time Scales. Solid State Phenomena, 2007, 129, 11-18.	0.3	1
154	Multi-scale Finite Element Cellular Automata Simulation of Multi-step Cold Forging Operations. Steel Research International, 2007, 78, 771-776.	1.0	1
155	Finite-element simulation of temperature-dependent three-point bending process of glass. Journal of Thermal Analysis and Calorimetry, 2010, 101, 651-656.	2.0	1
156	Numerical Analysis of the Microstructure and Mechanical Properties Evolution during Equal Channel Angular Pressing. Materials Science Forum, 2010, 638-642, 1940-1945.	0.3	1
157	Identification of Material Properties Based on Rolling Process at 4-Stand Laboratory Mill. , 2011, , .		1
158	Validation of a Model of Plastic Deformation of Niobium Microalloyed Steels in the Two-Phase Temperature Region. Steel Research International, 2012, 83, 743-757.	1.0	1
159	Application of Numerical and Physical Simulation to Design of the Best Manufacturing Technology for Fasteners. Archives of Metallurgy and Materials, 2015, 60, 455-460.	0.6	1
160	Identification Problem of Internal Variables Model of Material. Key Engineering Materials, 2015, 651-653, 1339-1344.	0.4	1
161	Metamodelling with artificial neural networks by using high performance computing infrastructures. AIP Conference Proceedings, 2016, , .	0.3	1
162	Identification of microstructure evolution model on the basis of the inverse analysis of two-step compression tests. AIP Conference Proceedings, 2016, , .	0.3	1

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163	Sensitivity analysis of phase transformation model based on solution of diffusion equation. Archives of Civil and Mechanical Engineering, 2016, 16, 186-192.	1.9	1
164	Application of Sensitivity Analysis to Grid-Based Procedure Dedicated to Creation of SSRVE. Lecture Notes in Computer Science, 2014, , 364-377.	1.0	1
165	Identification of Material Models of Nanocoatings System Using theÂMetamodeling Approach. IFIP Advances in Information and Communication Technology, 2009, , 319-330.	0.5	1
166	Numerical simulation of strain hardening and recrystallization in the hot forming processes. European Physical Journal Special Topics, 1993, 03, C7-1163-C7-1170.	0.2	1
167	Robust Multiscale Modelling Of Two-Phase Steels On Heterogeneous Hardware Infrastructures By Using Statistically Similar Representative Volume Element. Archives of Metallurgy and Materials, 2015, 60, 1973-1980.	0.6	1
168	Mean field and full field modelling of microstructure evolution and phase transformations during hot forming and cooling of low carbon steels. Computer Methods in Materials Science, 2020, 20, .	0.2	1
169	Multi Scale Modeling Of Phenomena Caused By Changes Of The Deformation Path In Materials Forming. AIP Conference Proceedings, 2007, , .	0.3	0
170	Comparison of the Strain Distribution Obtained from Multi Scale and Conventional Approaches to Modelling Extrusion. Solid State Phenomena, 2007, 129, 25-30.	0.3	0
171	Rheological Models of Blood: Sensitivity Analysis and Benchmark Simulations. , 2010, , .		0
172	Modelling of stamping of DP steel automotive part accounting for the effect of hard components in the microstructure. , 2013, , .		0
173	Computer Aided Design of Manufacturing of Anchors and Formulation of the Optimization Task for in Use Properties. Key Engineering Materials, 0, 554-557, 372-382.	0.4	0
174	Numerical Modelling of Manufacturing of Lightweight Components â€“ Selected Issues. Procedia CIRP, 2014, 18, 232-237.	1.0	0
175	Model of phase transformations in steels subject to heating-cooling thermal cycles in continuous annealing line. Canadian Metallurgical Quarterly, 2019, 58, 367-377.	0.4	0
176	METHOD FOR HEAT TREATMENT OF THE RUNNING SURFACE OF THE HEAD OF THE PEARLITIC STEEL RAILS. Journal of Metallic Materials, 2021, 73, 9-15.	0.0	0
177	Three-Dimensional Interdiffusion Under Stress Field in Fe-Ni-Cu Alloys. Journal of Phase Equilibria and Diffusion, 2006, 27, 691-698.	0.5	0
178	The Stress Field Induced Diffusion. Studies in Computational Intelligence, 2009, , 179-188.	0.7	0
179	Study on plastic forming of metal alloys in partly-liquid state. European Physical Journal Special Topics, 1993, 03, C7-829-C7-834.	0.2	0
180	Development and Application of the Statistically Similar Representative Volume Element for Numerical Modelling of Multiphase Materials. Lecture Notes in Computer Science, 2020, , 389-402.	1.0	0