Maciej Pietrzyk

List of Publications by Citations

172 papers	1,632 citations	19 h-index	30 g-index
194 ext. papers	1,865 ext. citations	2.7 avg, IF	4.59 L-index

#	Paper	IF	Citations
172	Metal forming beyond shaping: Predicting and setting product properties. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 629-653	4.9	111
171	Inverse analysis for identification of rheological and friction models in metal forming. *Computer Methods in Applied Mechanics and Engineering*, **2006**, 195, 6778-6798	5.7	90
170	Thermal-Mechanical Modelling of the Flat Rolling Process **1991**,		73
169	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	5.3	72
168	Through-process modelling of microstructure evolution in hot forming of steels. *Journal of Materials Processing Technology*, **2002**, 125-126, 53-62	5.3	44
167	Recent development in orbital forging technology. *International Journal of Material Forming*, **2008**, 1, 387-390	2	36
166	Computer aided development of the levelling technology for flat products. *CIRP Annals - Manufacturing Technology*, **2011**, 60, 291-294	4.9	29
165	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	7.8	28
164	Development of a Computer Code for the Interpretation of Results of Hot Plane Strain Compression Tests.. *ISIJ International*, **2000**, 40, 1230-1236	1.7	28
163	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	5.3	27
162	Finite element based model of structure development in the hot rolling process. *Steel Research = Archiv F□ Das Eisenh□tenwesen*, **1990**, 61, 603-607		26
161	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	4.1	25
160	Modelling of heat transfer, plastic flow and microstructural evolution during shape rolling. *Journal of Materials Processing Technology*, **1995**, 53, 159-166	5.3	24
159	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	5.3	24
158	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	3.4	23
157	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	5.3	23
156	Prediction of mechanical properties of heavy forgings. *Journal of Materials Processing Technology*, **1998**, 80-81, 166-173	5.3	22

155	Microstructure evolution in metal forming processes **2012**,		21
154	Numerical solution of the diffusion equation with moving boundary applied to modelling of the austenite–ferrite phase transformation. *Computational Materials Science*, **2008**, 44, 783-791	3.2	19
153	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	3.4	18
152	Finite-element simulation of large plastic deformation. *Journal of Materials Processing Technology*, **2000**, 106, 223-229	5.3	18
151	On the theory of the process of hot rolling of bimetal plate and sheet. *Journal of Mechanical Working Technology*, **1983**, 8, 309-325		18
150	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	5.3	17
149	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	2.5	16
148	Identification of Rheological Parameters on the Basis of Various Types of Compression and Tension Tests. *Steel Research International*, **2005**, 76, 131-137	1.6	16
147	Modelling the Thermomechanical and Microstructural Evolution During Rolling of a Nb HSLA Steel.. *ISIJ International*, **1995**, 35, 531-541	1.7	16
146	Physical and Numerical Simulation of the Continuous Annealing of DP Steel Strips. *Steel Research International*, **2014**, 85, 99-111	1.6	15
145	Application of statistically similar representative volume element in numerical simulations of crash box stamping. *Archives of Civil and Mechanical Engineering*, **2012**, 12, 126-132	3.4	15
144	Identification of Parameters in the History Dependent Constitutive Model for Steels. *CIRP Annals - Manufacturing Technology*, **2001**, 50, 161-164	4.9	15
143	Simulation of the behaviour of voids in steel plates during hot rolling. *Steel Research = Archiv F Das Eisenhttenwesen*, **1995**, 66, 526-529		15
142	Perceptive comparison of mean and full field dynamic recrystallization models. *Archives of Civil and Mechanical Engineering*, **2016**, 16, 569-589	3.4	15
141	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	1.6	14
140	Tool for optimal design of manufacturing chain based on metal forming. *CIRP Annals - Manufacturing Technology*, **2008**, 57, 309-312	4.9	14
139	Multi-scale rheological model for discontinuous phenomena in materials under deformation conditions. *Computational Materials Science*, **2007**, 38, 685-691	3.2	14
138	Rheological Model for Simulation of Hot rolling of New Generation Steel Strips for Automotive Applications. *Steel Research International*, **2006**, 77, 927-933	1.6	14

137	Numerical modeling and experimental identification of residual stresses in hot-rolled strips. *Archives of Civil and Mechanical Engineering*, **2016**, 16, 125-134	3.4	13
136	New Possibilities of Achieving Ultrafine Grained Microstructure in Metals and Alloys Employing MaxStrain Technology. *Solid State Phenomena*, **2005**, 101-102, 43-48	0.4	13
135	Modelling the Evolution of the Microstructure of a Nb Steel.. *ISIJ International*, **1996**, 36, 1094-1102	1.7	13
134	Effective strategies of metamodelling of industrial metallurgical processes. *Advances in Engineering Software*, **2015**, 89, 90-97	3.6	12
133	Application of inverse analysis with metamodelling for identification of metal flow stress. *Canadian Metallurgical Quarterly*, **2012**, 51, 440-446	0.9	12
132	Modelling of plastic flow, heat transfer and microstructural evolution during rolling of eutectoid steel rods. *Journal of Materials Processing Technology*, **1996**, 60, 589-596	5.3	12
131	Die Shape Design and Evaluation of Microstructure Control in the Closed-die Axisymmetric Forging by Using FORGE2 Program.. *ISIJ International*, **1994**, 34, 755-760	1.7	12
130	Analysis of the flat-rolling process: one-dimensional and finite-element models. *Journal of Materials Processing Technology*, **1993**, 39, 373-387	5.3	12
129	A study of heat transfer during flat rolling. *International Journal for Numerical Methods in Engineering*, **1990**, 30, 1459-1469	2.4	12
128	Computer Aided Design of New Forging Technology for Crank Shafts. *Steel Research International*, **2011**, 82, 187-194	1.6	11
127	Numerical identification of material model for CMn steel using micro-indentation test. *Materials Science and Technology*, **2008**, 24, 369-375	1.5	11
126	Three-dimensional interdiffusion under stress field in Fe-Ni-Cu alloys. *Journal of Phase Equilibria and Diffusion*, **2006**, 27, 691-698	1	11
125	The validation of a multiscale rheological model of discontinuous phenomena during metal rolling. *Computational Materials Science*, **2007**, 41, 236-241	3.2	11
124	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	2.3	11
123	Identification of rheological parameters on the basis of various types of plastometric tests. *Journal of Materials Processing Technology*, **2002**, 125-126, 150-154	5.3	11
122	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	2.4	11
121	Sensitivity Analysis of the Finite Difference 2-D Cellular Automata Model for Phase Transformation during Heating. *ISIJ International*, **2015**, 55, 285-292	1.7	10
120	Flow stress model accounting for the strain localization during plastic deformation of metals. *CIRP Annals - Manufacturing Technology*, **2004**, 53, 235-238	4.9	10

119	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	5.3	10
118	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	2.3	9
117	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	5.3	9
116	Internal Variable and Cellular Automata-Finite Element Models of Heat Treatment. *International Journal for Multiscale Computational Engineering*, **2010**, 8, 267-285	2.4	9
115	Optimised recrystallisation model using multiobjective evolutionary and genetic algorithms and k-optimality approach. *Materials Science and Technology*, **2016**, 32, 366-374	1.5	8
114	Model of Residual Stresses in Hot-rolled Sheets with Taking into Account Relaxation Process and Phase Transformation. *Procedia Engineering*, **2014**, 81, 108-113		8
113	Material flow analysis in the incremetal forging technology. *International Journal of Material Forming*, **2010**, 3, 931-934	2	8
112	Evolution of the microstructure in the hot rolling process. *Steel Research = Archiv F□ Das Eisenh□□tenwesen*, **1993**, 64, 549-556		8
111	Thermo-mechanical finite-element simulation of the tube sinking process. *Steel Research = Archiv F□ Das Eisenh□□tenwesen*, **1989**, 60, 459-463		8
110	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	3.4	7
109	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	3.2	7
108	Modelling and optimization of the manufacturing chain for rails. *Procedia Engineering*, **2017**, 207, 2101-2106		7
107	Model of Curvature of Crankshaft Blank during the Heat Treatment after Forging. *Procedia Engineering*, **2014**, 81, 498-503		7
106	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	4.9	7
105	Validation of Multi-scale Model Describing Microstructure Evolution in Steels. *Steel Research International*, **2008**, 79, 652-659	1.6	7
104	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	3.2	7
103	Modelling water cooling of steel strip during hot rolling. *Steel Research = Archiv F□ Das Eisenh□□tenwesen*, **1993**, 64, 128-131		7
102	Validation of the thermomechanical microstructural model for closed-die forging. *Steel Research = Archiv F□ Das Eisenh□□tenwesen*, **1994**, 65, 94-99		7

101	The effect of deformation zone geometry on internal defects arising in plane strain rolling. *Journal of Materials Processing Technology*, **1992**, 32, 509-518	5.3	7
100	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	1.6	6
99	Cellular automata model for prediction of crack initiation and propagation in hot forging tools. *Archives of Civil and Mechanical Engineering*, **2016**, 16, 437-447	3.4	6
98	Computer-Integrated Platform for Automatic, Flexible, and Optimal Multivariable Design of a Hot Strip Rolling Technology Using Advanced Multiphase Steels. *Metals*, **2019**, 9, 737	2.3	6
97	Numerical Modeling of Microstructure Evolution During Forging of Crank Shafts. *Steel Research International*, **2012**, 83, 808-816	1.6	6
96	Multi billet extrusion technology for manufacturing bi-layered components. *CIRP Annals - Manufacturing Technology*, **2012**, 61, 235-238	4.9	6
95	Optimization as a support for design of hot rolling technology of dual phase steel strips **2013**,		6
94	Sensitivity analysis of quantitative fracture criterion based on the results of the SICO test. *Journal of Materials Processing Technology*, **2006**, 177, 296-299	5.3	6
93	Parallel finite element calculation of plastic deformations on Exemplar SPP1000 and on networked workstations. *Journal of Materials Processing Technology*, **1996**, 60, 409-413	5.3	6
92	Influence of the lubricant on temperature distribution in the forging dies. *Steel Research = Archiv Fü Das Eisenhüttenwesen*, **1995**, 66, 424-429		6
91	Fields of strains around the inclusion of second phase in a uniform matrix undergoing plastic deformation. *Steel Research = Archiv Fü Das Eisenhüttenwesen*, **1991**, 62, 507-511		6
90	Strains in the tube-sinking process evaluated by the finite element method and experimental technique. *Steel Research = Archiv Fü Das Eisenhüttenwesen*, **1991**, 62, 255-260		6
89	Experimental substantiation of rigid-plastic finite-element modelling of three-dimensional forming processes. *Journal of Mechanical Working Technology*, **1989**, 19, 295-303		6
88	Computer System for Identification of Material Models on the Basis of Plastometric Tests. *Archives of Metallurgy and Materials*, **2013**, 58, 737-743		5
87	Analysis of the Stress Concentration in the Nanomultilayer Coatings Based on Digital Representation of the Structure. *Archives of Metallurgy and Materials*, **2011**, 56,		5
86	Inverse Analysis of Tensile Tests. *Steel Research International*, **2005**, 76, 807-814	1.6	5
85	Numerical simulation of the evolution of the microstructure in closed-die forging. *Journal of Materials Processing Technology*, **1994**, 42, 217-226	5.3	5
84	Multistage compression of microalloyed steels - FE simulation and measurements of grain size. *Journal of Materials Processing Technology*, **1994**, 45, 509-514	5.3	5

83	Deformation Heating During Cold Rolling of Aluminum Strips. *Journal of Engineering Materials and Technology, Transactions of the ASME*, **1991**, 113, 69-74	1.8	5
82	Comparison of the predictive capabilities of mathematical models of the flat rolling process. *Journal of Materials Processing Technology*, **1992**, 34, 85-92	5.3	5
81	Validation of the finite-element model of the tube-sinking process. *Journal of Materials Processing Technology*, **1990**, 22, 65-73	5.3	5
80	Problem of stress and strain concentration in the entry and exit planes in the drawing process. *Steel Research = Archiv F□r Das Eisenh□ttenwesen*, **1988**, 59, 275-278		5
79	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	2.4	5
78	Sensitivity analysis on HPC systems with Scalarm platform. *Concurrency Computation Practice and Experience*, **2017**, 29, e4025	1.4	4
77	Perceptive Review of Ferrous Micro/Macro Material Models for Thermo-Mechanical Processing Applications. *Steel Research International*, **2017**, 88, 1700193	1.6	4
76	Validation of Cellular Automata Model of Dynamic Recrystallization. *Key Engineering Materials*, **2015**, 651-653, 581-586	0.4	4
75	Selection of Parameters of the Heat Treatment Thermal Cycle for Rails with Respect to the Wear Resistance. *Steel Research International*, **2014**, 85, 1070-1082	1.6	4
74	Multiscale model of dynamic recrystallization in hot rolling. *International Journal of Material Forming*, **2008**, 1, 69-72	2	4
73	Thermal-diffusion finite element analysis of nitriding process for arc plasma surface hardening of steel. *Journal of Materials Processing Technology*, **1996**, 56, 412-421	5.3	4
72	The predictive capabilities of a thermal model of flat rolling. *Steel Research = Archiv F□r Das Eisenh□ttenwesen*, **1989**, 60, 403-406		4
71	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	2.4	4
70	Evolution of the Microstructure in the Processes of Hot Compression and Drawing-Rolling.. *ISIJ International*, **1996**, 36, 1199-1207	1.7	4
69	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	1.7	4
68	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		4
67	Numerical simulation of manufacturing process chain for pearlitic and bainitic steel rails. *Archives of Civil and Mechanical Engineering*, **2020**, 20, 1	3.4	4
66	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	2.3	4

65	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	0.5	3
64	Selection of the optimization method for identification of phase transformation models for steels. *Materials and Manufacturing Processes*, **2017**, 32, 1248-1259	4.1	3
63	Development of the multi-scale model of cold rolling based on physical and numerical investigation of ferritic□pearlitic steels. *Archives of Civil and Mechanical Engineering*, **2015**, 15, 885-896	3.4	3
62	Physical and numerical modelling of backward extrusion of Mg alloy with Al coating. *CIRP Annals - Manufacturing Technology*, **2015**, 64, 253-256	4.9	3
61	Material characterization for numerical simulation of manufacturing of automotive part made of magnesium alloy. *Archives of Civil and Mechanical Engineering*, **2020**, 20, 1	3.4	3
60	Model Of Relaxation Of Residual Stresses In Hot-Rolled Strips. *Archives of Metallurgy and Materials*, **2015**, 60, 1935-1940		3
59	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*, **2013**, 762, 699-704	0.4	3
58	Multiscale CAFE Modelling of Dynamic Recrystallization. *Materials Science Forum*, **2010**, 638-642, 2567-2572	0.4	3
57	Identification of rheological models and boundary conditions in metal forming. *International Journal of Materials and Product Technology*, **2010**, 39, 388	1	3
56	The Stress Field in Cu-Fe-Ni Diffusion Couples. *Defect and Diffusion Forum*, **2007**, 264, 47-54	0.7	3
55	Analysis of Microstructure Evolution in the Forging Process of a Windmill Main Shaft. *Steel Research International*, **2006**, 77, 583-589	1.6	3
54	Efficient program for finite element calculations of plastic deformations in metal forming processes. *Journal of Materials Processing Technology*, **1994**, 45, 677-681	5.3	3
53	Simulation of metal flow and heat transfer during hot rolling of bimetal plates. *Steel Research = Archiv Fü Das Eisenhüttenwesen*, **1991**, 62, 248-254		3
52	Behaviour of metal alloys during plastic deformation in partly liquid state. *Journal of Materials Processing Technology*, **1992**, 34, 481-488	5.3	3
51	Theoretical evaluation of the shape of the deformation zone in the press piercing mill. *Steel Research = Archiv Fü Das Eisenhüttenwesen*, **1988**, 59, 454-458		3
50	A graphical method for predicting roll force and torque. *Journal of Mechanical Working Technology*, **1984**, 10, 67-75		3
49	Identification of Rheological and Tribological Parameters **2002**, 227-258		3
48	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	1.5	3

47	Comparison of Numerical Simulation and Experiment for the Microstructure Development of a Cold-Rolled Multiphase Steel during Annealing. *Materials Science Forum*, **2016**, 854, 167-173	0.4	2
46	The Material Flow Analysis in the Modified Orbital Forging Technology. *Materials Science Forum*, **2010**, 654-656, 1622-1625	0.4	2
45	Model of Phase Transformation for Niobium Microalloyed Steels. *Archives of Metallurgy and Materials*, **2011**, 56,		2
44	Computer Aided Design of Manufacturing of Fasteners - Selection of the Best Production Chain. *Key Engineering Materials*, **2012**, 504-506, 157-162	0.4	2
43	Modelling of Fatigue Behaviour of Hard Multilayer Nanocoating System in Nanoimpact Test. *Computational Methods in Applied Sciences (Springer)*, **2008**, 137-159	0.4	2
42	Some aspects of plastic deformation of metal alloys in partly liquid state. *Journal of Materials Processing Technology*, **1994**, 45, 365-370	5.3	2
41	Some aspects of development of models for automatic control of rolling mills. *Steel Research = Archiv F□ Das Eisenh□ttenwesen*, **1990**, 61, 359-364		2
40	Model-Based Approach To Study Hot Rolling Mills With Data Farming **2016**,		2
39	Complex Modelling Platform based on Digital Material Representation **2007**, 403-410		2
38	Application of Metamodels to Identification of Metallic Materials Models. *Advances in Materials Science and Engineering*, **2016**, 2016, 1-20	1.5	2
37	Model of Curvature of Crankshaft Blank During Heat Treatment, Accounting for Phase Transformations. *Steel Research International*, **2016**, 87, 519-528	1.6	2
36	Computer system for identification of tool wear model in hot forging. *MATEC Web of Conferences*, **2016**, 80, 11006	0.3	2
35	Problem of Identification of Phase Transformation Models Used in Simulations of Steels Processing. *Journal of Materials Engineering and Performance*, **2018**, 27, 5725-5735	1.6	2
34	Compositional heterogeneity in multiphase steels: Characterization and influence on local properties. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 827, 142078	5.3	2
33	Use of Artificial Intelligence in Classification of Mill Scale Defects. *Steel Research International*, **2015** , 86, 266-277	1.6	1
32	Sensitivity analysis of phase transformation model based on solution of diffusion equation. *Archives of Civil and Mechanical Engineering*, **2016**, 16, 186-192	3.4	1
31	Accounting for the Inhomogeneity of Deformation in Identification of Microstructure Evolution Model / Niejednorodno□Odkszta□enia W I Dentyfikacji Modelu Rozwoju Mikrostruktury. *Archives of Metallurgy and Materials*, **2015**, 60, 3087-3094		1
30	Validation of a Model of Plastic Deformation of Niobium Microalloyed Steels in the Two-Phase Temperature Region. *Steel Research International*, **2012**, 83, 743-757	1.6	1

29	Finite-element simulation of temperature-dependent three-point bending process of glass. *Journal of Thermal Analysis and Calorimetry*, **2010**, 101, 651-656	4.1	1
28	Electro-Mechano-Chemistry; Transport Problem in Four Time Scales. *Solid State Phenomena*, **2007**, 129, 11-18	0.4	1
27	Multi-scale Finite Element Cellular Automata Simulation of Multi-step Cold Forging Operations. *Steel Research International*, **2007**, 78, 771-776	1.6	1
26	Inverse Analysis of Axisymmetrical Compression of HSLA Steel. *Steel Research International*, **2007**, 78, 546-553	1.6	1
25	Theoretical and experimental analysis of drawing of steel rods covered with copper. *Journal of Materials Processing Technology*, **1994**, 45, 401-406	5.3	1
24	Die Kraftparameter des Verfahrens zum Walzen von Quadratknüppeln in Oval- und Rautenkalibern. *Archiv Für Das Eisenhüttenwesen*, **1979**, 50, 335-340		1
23	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		1
22	Application of Sensitivity Analysis to Grid-Based Procedure Dedicated to Creation of SSRVE. *Lecture Notes in Computer Science*, **2014**, 364-377	0.9	1
21	Identification of Material Models of Nanocoatings System Using the Metamodeling Approach. *IFIP Advances in Information and Communication Technology*, **2009**, 319-330	0.5	1
20	Metamodelling with artificial neural networks by using high performance computing infrastructures **2016**,		1
19	Criterion for microcrack resistance of multi-phase steels based on property gradient maps. *CIRP Annals - Manufacturing Technology*, **2021**, 70, 243-246	4.9	1
18	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	2.3	0
17	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
16	Identification Problem of Internal Variables Model of Material. *Key Engineering Materials*, **2015**, 651-653, 1339-1344	0.4	0
15	Identification of ductile fracture criterion on basis of experimental data. *Canadian Metallurgical Quarterly*, **2014**, 53, 469-477	0.9	0
14	Sensitivity analysis, identification and validation of the dislocation density-based model for metallic materials. *Metallurgical Research and Technology*, **2021**, 118, 317	0.9	0
13	Inverse Problem in Stochastic Approach to Modelling of Microstructural Parameters in Metallic Materials during Processing. *Mathematical Problems in Engineering*, **2022**, 2022, 1-15	1.1	0
12	Model of phase transformations in steels subject to heating-cooling thermal cycles in continuous annealing line. *Canadian Metallurgical Quarterly*, **2019**, 58, 367-377	0.9	

List of Publications

11	Numerical Modelling of Manufacturing of Lightweight Components Selected Issues. *Procedia CIRP* , **2014**, 18, 232-237	1.8
10	Computer Aided Design of Manufacturing of Anchors and Formulation of the Optimization Task for in Use Properties. *Key Engineering Materials*, **2013**, 554-557, 372-382	0.4
9	Numerical Analysis of the Microstructure and Mechanical Properties Evolution during Equal Channel Angular Pressing. *Materials Science Forum*, **2010**, 638-642, 1940-1945	0.4
8	Comparison of the Strain Distribution Obtained from Multi Scale and Conventional Approaches to Modelling Extrusion. *Solid State Phenomena*, **2007**, 129, 25-30	0.4
7	Development and Application of the Statistically Similar Representative Volume Element for Numerical Modelling of Multiphase Materials. *Lecture Notes in Computer Science*, **2020**, 389-402	0.9
6	The Stress Field Induced Diffusion. *Studies in Computational Intelligence*, **2009**, 179-188	0.8
5	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
4	Modelling of Phenomena **2022**, 9-79	
3	Preparation of Material Representation **2022**, 143-188	
2	Computational Methods **2022**, 81-141	
1	Examples of Multiscale Simulations **2022**, 189-218	