

Ulrich Prahl

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/946859/publications.pdf>

Version: 2024-02-01

211
papers

4,310
citations

136950

32
h-index

138484

58
g-index

231
all docs

231
docs citations

231
times ranked

2556
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of defects in a twin roll cast Mg-4Zn magnesium alloy. Engineering Reports, 2022, 4, e12394.	1.7	3
2	Exploring the Structure-Property Relationship in Spheroidized C45EC Steel Using Full Phase Crystal Plasticity Numerical Simulations. Steel Research International, 2022, 93, 2100452.	1.8	7
3	Microstructure and Hot Deformation Behaviour of Twin-Roll Cast AZ31 Magnesium Wire. Crystals, 2022, 12, 173.	2.2	2
4	Micromechanical Effect of Martensite Attributes on Forming Limits of Dual-Phase Steels Investigated by Crystal Plasticity-Based Numerical Simulations. Crystals, 2022, 12, 155.	2.2	7
5	A New Approach for Sintering Simulation of Irregularly Shaped Powder Particles-Part I: Model Development and Case Studies. Advanced Engineering Materials, 2022, 24, .	3.5	3
6	Influence of Non-Metallic Inclusions on Local Deformation and Damage Behavior of Modified 16MnCr5 Steel. Crystals, 2022, 12, 281.	2.2	15
7	Deformation Lenses in a Bonding Zone of High-Alloyed Steel Laminates Manufactured by Cold Roll Bonding. Metals, 2022, 12, 590.	2.3	0
8	Microstructural evolution of the bonding zone in TRIP-TWIP laminate produced by accumulative roll bonding. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142866.	5.6	5
9	Copper-Based Alloys with Optimized Hardness and High Conductivity: Research on Precipitation Hardening of Low-Alloyed Binary CuSc Alloys. Metals, 2022, 12, 902.	2.3	4
10	Characterization of Sintered Niobium-Alumina Refractory Composite Granules Synthesized by Castable Technology. Advanced Engineering Materials, 2022, 24, .	3.5	2
11	A New Approach for Sintering Simulation of Irregularly Shaped Powder Particles-Part II: Statistical Powder Modeling. Advanced Engineering Materials, 2022, 24, .	3.5	2
12	Transformation of 2D RVE Local Stress and Strain Distributions to 3D Observations in Full Phase Crystal Plasticity Simulations of Dual-Phase Steels. Crystals, 2022, 12, 955.	2.2	7
13	Thermodynamics of martensite formation in Fe-Mn-Al-Ni shape memory alloys. Scripta Materialia, 2021, 192, 26-31.	5.2	14
14	Investigating the Effect of Cementite Particle Size and Distribution on Local Stress and Strain Evolution in Spheroidized Medium Carbon Steels using Crystal Plasticity-Based Numerical Simulations. Steel Research International, 2021, 92, 2000407.	1.8	16
15	Hot Deformation and Dynamic Recrystallisation Behaviour of Twin-Roll Cast Mg-6.8Y-2.5Zn-0.4Zr Magnesium Alloy. Materials, 2021, 14, 307.	2.9	9
16	Analyzing the cementite particle size and distribution in heterogeneous microstructure of C45EC steel using crystal plasticity based DAMASK code. , 2021, , .		5
17	Deformation Behavior, Structure, and Properties of an Aging Ti-Ni Shape Memory Alloy after Compression Deformation in a Wide Temperature Range. Jom, 2021, 73, 620-629.	1.9	11
18	Powder Forging of in Axial and Radial Direction Graded Components of TRIP-Matrix-Composite. Metals, 2021, 11, 378.	2.3	0

#	ARTICLE	IF	CITATIONS
19	On Attempting to Create a Virtual Laboratory for Application-Oriented Microstructural Optimization of Multi-Phase Materials. Applied Sciences (Switzerland), 2021, 11, 1506.	2.5	13
20	The Influence of Induction Sintering on Microstructure and Deformation Behavior of Ti-5Al-5Mo-5V-3Cr Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1699-1713.	2.2	7
21	Improving the crashworthiness of magnesium AZ31 by tapering and triggering. Thin-Walled Structures, 2021, 162, 107565.	5.3	6
22	A Comparative Study on the Hot Deformation Behavior of As-Cast and Twin-Roll Cast Mg-6.8Y-2.5Zn-0.4Zr Alloy. Materials, 2021, 14, 3628.	2.9	5
23	Studying the Damage Evolution and the Micro-Mechanical Response of X8CrMnNi16-6-6 TRIP Steel Matrix and 10% Zirconia Particle Composite Using a Calibrated Physics and Crystal-Plasticity-Based Numerical Simulation Model. Crystals, 2021, 11, 759.	2.2	14
24	Deformation Behavior, Structure and Properties of an Equiatomic Ti-Ni Shape Memory Alloy Compressed in a Wide Temperature Range. Transactions of the Indian Institute of Metals, 2021, 74, 2419-2426.	1.5	11
25	Investigation of the Deformation Behaviour and Resulting Ply Thicknesses of Multilayered Fibre-Metal Laminates. Journal of Composites Science, 2021, 5, 176.	3.0	5
26	Qualitative Investigation of Damage Initiation at Meso-Scale in Spheroidized C45EC Steels by Using Crystal Plasticity-Based Numerical Simulations. Journal of Composites Science, 2021, 5, 222.	3.0	7
27	Numerical simulation of hydrogen distribution around a crack tip in a high-Mn steel. Materials Today Communications, 2021, 28, 102647.	1.9	1
28	Modeling Bainitic Transformations during Press Hardening. Materials, 2021, 14, 654.	2.9	0
29	Effect of the 3rd Dimension within the Representative Volume Element (RVE) on Damage Initiation and Propagation during Full-Phase Numerical Simulations of Single and Multi-Phase Steels. Materials, 2021, 14, 42.	2.9	19
30	How the Thermomechanical Processing Can Modify the High Strain Rate Mechanical Response of a Microalloyed Steel. Materials, 2021, 14, 6062.	2.9	0
31	Hot Rolling of the Twin-Roll Cast and Homogenized Mg-6.8Y-2.5Zn (WZ73) Magnesium Alloy Containing LPSO Structures. Metals, 2021, 11, 1771.	2.3	1
32	Integrated Process Simulation of Non-Oriented Electrical Steel. Materials, 2021, 14, 6659.	2.9	6
33	Shear and laser cutting effects on hydrogen embrittlement of a high-Mn TWIP steel. Engineering Failure Analysis, 2020, 108, 104243.	4.0	6
34	GTN Model-Based Material Parameters of AZ31 Magnesium Sheet at Various Temperatures by Means of SEM In-Situ Testing. Crystals, 2020, 10, 856.	2.2	11
35	Influence of Interface Proximity on Precipitation Thermodynamics. Metals, 2020, 10, 1292.	2.3	1
36	The analysis of hot deformation behavior of powder metallurgy Ti-10V-2Fe-3Al alloy using activation energy and Zener-Hollomon parameter. Procedia Manufacturing, 2020, 50, 546-551.	1.9	6

#	ARTICLE	IF	CITATIONS
37	Dynamic recrystallization and texture evolution of Mg-6.8Y-2.5Zn-0.3Zr alloy during hot rolling. <i>Procedia Manufacturing</i> , 2020, 50, 809-816.	1.9	3
38	Hot Processing of Powder Metallurgy and Wrought Ti-6Al-4V Alloy with Large Total Deformation: Physical Modeling and Verification by Rolling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 5790-5805.	2.2	5
39	Effect of 3D Representative Volume Element (RVE) Thickness on Stress and Strain Partitioning in Crystal Plasticity Simulations of Multi-Phase Materials. <i>Crystals</i> , 2020, 10, 944.	2.2	26
40	Microstructure and Texture Evolution during Twin-Roll Casting and Annealing of a Mg-6.8Y-2.5Zn-0.4Zr Alloy (WZ73). <i>Crystals</i> , 2020, 10, 513.	2.2	15
41	Correlating magnetic properties of ferritic NO electrical steel containing 2.4Åm.%Si with hot strip microstructure. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 501, 166431.	2.3	9
42	Forming Complex Graded and Homogeneous Components by Joining Simple Presintered Parts of TRIP-Matrix Composite through Powder Forging. <i>Metals</i> , 2020, 10, 543.	2.3	3
43	Modeling the Local Deformation and Transformation Behavior of Cast X8CrMnNi16-6-6 TRIP Steel and 10% Mg-PSZ Composite Using a Continuum Mechanics-Based Crystal Plasticity Model. <i>Crystals</i> , 2020, 10, 221.	2.2	20
44	Investigating the local deformation and transformation behavior of sintered X3CrMnNi16-7-6 TRIP steel using a calibrated crystal plasticity-based numerical simulation model. <i>International Journal of Materials Research</i> , 2020, 111, 392-404.	0.3	18
45	Powder Forging of Presintered TRIP-Matrix Composites. <i>Springer Series in Materials Science</i> , 2020, , 223-255.	0.6	1
46	Evolution of Structure and Properties of Nickel-Enriched Ti-Ni Shape Memory Alloy subjected to Compressive Deformation. , 2020, , .		0
47	Understanding of Processing, Microstructure and Property Correlations for Flat Rolling of Presintered TRIP-Matrix Composites. <i>Springer Series in Materials Science</i> , 2020, , 197-222.	0.6	2
48	Understanding of Processing, Microstructure and Property Correlations During Different Sintering Treatments of TRIP-Matrix-Composites. <i>Springer Series in Materials Science</i> , 2020, , 167-196.	0.6	2
49	Specific Features of Microstructural Evolution During Hot Rolling of the As-Cast Magnesium-Rich Aluminum Alloys with Added Transition Metal Elements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5782-5799.	2.2	9
50	Microstructure-based approach to predict the machinability of the ferritic-pearlitic steel C60 by cutting operations. <i>Procedia CIRP</i> , 2019, 82, 107-112.	1.9	4
51	Development of new alloy systems and innovative processing technologies for the production of magnesium flat products with excellent property profile. <i>Procedia Manufacturing</i> , 2019, 27, 203-208.	1.9	12
52	The Investigation on Flow Behavior of Powder Metallurgy Ti-10V-2Fe-3Al Alloy Using the Prasad Stability Criterion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5314-5323.	2.2	10
53	Further Development of Process Maps for TRIP Matrix Composites during Powder Forging. <i>Materials Science Forum</i> , 2019, 949, 15-23.	0.3	5
54	Core microstructure-dependent bending fatigue behavior and crack growth of a case-hardened steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 762, 138040.	5.6	10

#	ARTICLE	IF	CITATIONS
55	Hot Deformation Behaviour and Processing Maps of an as-Cast Mg-6.8Y-2.5Zn-0.4Zr Alloy. <i>Materials Science Forum</i> , 2019, 949, 57-65.	0.3	4
56	Thermo-micro-mechanical simulation of metal forming processes. <i>International Journal of Solids and Structures</i> , 2019, 178-179, 59-80.	2.7	9
57	Microstructure and Hot Deformation Behavior of Twin Roll Cast Mg-2Zn-1Al-0.3Ca Alloy. <i>Materials</i> , 2019, 12, 1020.	2.9	12
58	Laminated TRIP/TWIP Steel Composites Produced by Roll Bonding. <i>Metals</i> , 2019, 9, 195.	2.3	8
59	Copper-Alloyed Precipitation-Hardenable Ferritic-Pearlitic Steel for Energy-Efficient and Distortion-Reduced Production of Cold-Formed, High-Strength Structural Components. <i>Steel Research International</i> , 2019, 90, 1800432.	1.8	0
60	The Influence of Hot-Rolling Conditions on the Content and Morphology of Retained Austenite in Ultra-High Strength Bainitic Steel and Its Mechanical Properties. <i>Steel Research International</i> , 2019, 90, 1800386.	1.8	2
61	The Influence of Segregations after Forming on the Heat Treatment Result of Bevel Gears. <i>Steel Research International</i> , 2019, 90, 1800427.	1.8	5
62	Phase-Field Modeling of Microstructure Evolution of Binary and Multicomponent Alloys During Selective Laser Melting (SLM) Process. <i>Minerals, Metals and Materials Series</i> , 2019, , 301-309.	0.4	0
63	Strain Hardening, Damage and Fracture Behavior of Al-Added High Mn TWIP Steels. <i>Metals</i> , 2019, 9, 367.	2.3	16
64	Microstructure Evolution of Binary and Multicomponent Manganese Steels During Selective Laser Melting: Phase-Field Modeling and Experimental Validation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 2022-2040.	2.2	33
65	Microstructural constitutive model for polycrystal viscoplasticity in cold and warm regimes based on continuum dislocation dynamics. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 122, 205-243.	4.8	19
66	Microstructural adjustment of carburized steel components towards reducing the quenching-induced distortion. <i>Journal of Materials Processing Technology</i> , 2019, 264, 313-327.	6.3	14
67	Influence of post-carburizing heat treatment on the core microstructural evolution and the resulting mechanical properties in case-hardened steel components. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 744, 778-789.	5.6	12
68	Experimental Investigations and Multiscale Modeling to Study the Effect of Sulfur Content on Formability of 16MnCr5 Alloy Steel. <i>Steel Research International</i> , 2019, 90, 1800369.	1.8	17
69	Assessment of Shell Strength During Solidification in the Mold Cracking Simulator (MCS) Test. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 142-150.	2.2	0
70	Effect of cutting method on hydrogen embrittlement of high-Mn TWIP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 744, 10-20.	5.6	11
71	Deformation Behavior of Particle Reinforced TRIP Steel/MgPSZ Composite at Hot Working Temperatures. <i>Steel Research International</i> , 2019, 90, 1800334.	1.8	2
72	Mathematical Description of the Microstructural Modifications and Changes in the Mechanical Properties during Spheroidization of Medium-Carbon Steel. <i>Steel Research International</i> , 2019, 90, 1800335.	1.8	6

#	ARTICLE	IF	CITATIONS
73	Interpass Softening Behavior of Fe-16Cr x Mn-4Ni-0.05C-0.17N Steel. <i>Advanced Engineering Materials</i> , 2019, 21, 1800692.	3.5	4
74	Anisotropy and strain rate effects on the failure behavior of TWIP steel: A multiscale experimental study. <i>International Journal of Plasticity</i> , 2019, 115, 178-199.	8.8	34
75	The Kinetics of Dynamic Recrystallization of Fe-16Cr x Mn-4Ni-0.05C-0.17N Steel. <i>Steel Research International</i> , 2019, 90, 1800309.	1.8	5
76	Effect of hot Rolling and Cooling Conditions on the Microstructure, MA Constituent Formation, and Pipeline Steels Mechanical Properties. <i>Steel Research International</i> , 2019, 90, 1800336.	1.8	8
77	Development of an Aluminium-Reduced Niobium-Microalloyed Case Hardening Steel for Heavy Gear Manufacturing. <i>HTM - Journal of Heat Treatment and Materials</i> , 2019, 74, 36-49.	0.2	2
78	Twin-roll casting of magnesium wire: an innovative continuous production route. , 2019, , .		3
79	Dynamic recrystallization behaviour of Twin Roll Cast ZAX210 strips during hot deformation. , 2019, , .		2
80	New Steel Grades for Deep Carburizing of Windmill Transmission Components*. <i>HTM - Journal of Heat Treatment and Materials</i> , 2019, 74, 99-114.	0.2	0
81	Impact of the Spheroidization Annealing on the Intensification or Mitigation of the Initial Pearlite Banding Degree Presented in Wire Rolled State. <i>HTM - Journal of Heat Treatment and Materials</i> , 2019, 74, 202-211.	0.2	1
82	Experimental quantification of carbon gradients in martensite and its multi-scale effects in a DP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 718, 250-259.	5.6	14
83	Temperature dependent strain hardening and fracture behavior of TWIP steel. <i>International Journal of Plasticity</i> , 2018, 104, 80-103.	8.8	98
84	Failure predictions of DP600 steel sheets using various uncoupled fracture criteria. <i>Engineering Fracture Mechanics</i> , 2018, 190, 367-381.	4.3	36
85	Investigation of microstructure and mechanical properties of friction stir welded AA6016-T4 and DC04 alloy joints. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 94, 4209-4219.	3.0	10
86	Pinning effect of strain induced Nb(C,N) on case hardening steel under warm forging conditions. <i>Journal of Materials Processing Technology</i> , 2018, 253, 121-133.	6.3	6
87	Experimental and Numerical Investigations into the Failure Mechanisms of TRIP700 Steel Sheets. <i>Metals</i> , 2018, 8, 1073.	2.3	6
88	Magnesium Twin-Roll Casting Technology for Flat and Long Products - State of the Art and Future. <i>Materials Science Forum</i> , 2018, 941, 1431-1436.	0.3	4
89	Simulation of Thermal Phenomena in Reverse Strip-Rolling Process. <i>Materials Science Forum</i> , 2018, 941, 1424-1430.	0.3	2
90	Impact of Initial State during Calibre Rolling: Investigating Microstructure and Mechanical Properties of AZ80 Magnesium Alloy. <i>Materials Science Forum</i> , 2018, 941, 857-862.	0.3	0

#	ARTICLE	IF	CITATIONS
91	Numerical Benchmark of Phase-Field Simulations with Elastic Strains: Precipitation in the Presence of Chemo-Mechanical Coupling. Computational Materials Science, 2018, 155, 541-553.	3.0	15
92	Improving the formability of magnesium by cushion-ram-pulsation. MATEC Web of Conferences, 2018, 190, 12003.	0.2	2
93	Experimental and numerical investigation of dual phase steels formability during laser-assisted hole-flanging. AIP Conference Proceedings, 2018, , .	0.4	4
94	Quantification of complex-phase steel microstructure by using combined EBSD and EPMA measurements. Materials Characterization, 2018, 142, 179-186.	4.4	45
95	Multiphase-Field Simulation of Cementite Precipitation during Isothermal Lower Bainitic Transformation. Steel Research International, 2018, 89, 1800028.	1.8	9
96	Low-loss FeSi sheet for energy-efficient electrical drives. AIMS Materials Science, 2018, 5, 1184-1198.	1.4	4
97	Modelling of grain boundary dynamics using amplitude equations. Continuum Mechanics and Thermodynamics, 2017, 29, 895-911.	2.2	8
98	Scientific Cooperation Engineering. , 2017, , 993-1046.		0
99	Multi-technology Platforms (MTPs). , 2017, , 369-513.		2
100	Integrated Computational Materials and Production Engineering (ICMPE). , 2017, , 253-364.		1
101	Multiscale, Coupled Chemo-mechanical Modeling of Bainitic Transformation During Press Hardening. Minerals, Metals and Materials Series, 2017, , 335-343.	0.4	1
102	Characterization of Nb-Microsegregation and Eutectic Carbide in As-Cast Nb-Microalloyed Al-Free Case Hardening Steel. Steel Research International, 2017, 88, 1700092.	1.8	6
103	Microstructure based simulations for prediction of flow curves and selection of process parameters for inter-critical annealing in DP steel. IOP Conference Series: Materials Science and Engineering, 2017, 192, 012010.	0.6	3
104	Scenario for Data Exchange at the Microstructure Scale. Integrating Materials and Manufacturing Innovation, 2017, 6, 127-133.	2.6	2
105	A unified dislocation density-dependent physical-based constitutive model for cold metal forming. AIP Conference Proceedings, 2017, , .	0.4	1
106	Modeling Bainite Transformation and Retained Austenite in Hot Rolled TRIP Steel by Instantaneous Carbon Enrichment. Steel Research International, 2017, 88, 1700122.	1.8	3
107	Cutting Simulations of Two Gear Steels with Microstructure Dependent Material Laws. Procedia CIRP, 2017, 58, 549-554.	1.9	7
108	Towards a micromechanical based description for strength increase in dual phase steels during bake-hardening process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 702, 386-397.	5.6	7

#	ARTICLE	IF	CITATIONS
109	Exploiting Process-Related Advantages of Selective Laser Melting for the Production of High-Manganese Steel. <i>Materials</i> , 2017, 10, 56.	2.9	60
110	An Attempt to Integrate Software Tools at Microscale and Above Towards an ICME Approach for Heat Treatment of a DP Steel Gear with Reduced Distortion. <i>Minerals, Metals and Materials Series</i> , 2017, , 3-13.	0.4	4
111	ICME-Based Process and Alloy Design for Vacuum Carburized Steel Components with High Potential of Reduced Distortion. <i>Minerals, Metals and Materials Series</i> , 2017, , 133-144.	0.4	3
112	Scale Bridging Simulations of Large Elastic Deformations and Bainitic Transformations. <i>Lecture Notes in Computer Science</i> , 2017, , 125-138.	1.3	0
113	Direct, Mold-Less Production Systems. , 2017, , 23-111.		6
114	Material Models and their Capability for Process and Material Properties Design in Different Forming Processes. <i>Materials Science Forum</i> , 2016, 854, 174-182.	0.3	4
115	A crystal plasticity model for twinning- and transformation-induced plasticity. <i>Acta Materialia</i> , 2016, 118, 140-151.	7.9	175
116	The Effect of Bake-Hardening Parameters on the Mechanical Properties of Dual-Phase Steels. <i>Steel Research International</i> , 2016, 87, 1559-1565.	1.8	25
117	Characterisation of mechanical behavior of 18CrNiMo7-6 steel with and without nb under warm forging conditions through processing maps analysis. <i>Journal of Materials Processing Technology</i> , 2016, 237, 216-234.	6.3	24
118	Development and application of a microstructure-based approach to characterize and model failure initiation in DP steels using XFEM. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 660, 181-194.	5.6	37
119	Industrial Needs for ICME. <i>Jom</i> , 2016, 68, 59-69.	1.9	6
120	Software Solutions for ICME. <i>Jom</i> , 2016, 68, 70-76.	1.9	7
121	The effect of martensite banding on the mechanical properties and formability of TRIP steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 651, 160-164.	5.6	28
122	Herstellung massiver metallischer Gläser aus kristallinen Gefügen durch lokales kleinvolumiges Umschmelzen. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2015, 46, 613-620.	0.9	0
123	Characterization of Microstructure and Mechanical Properties of Resistance Spot Welded DP600 Steel. <i>Metals</i> , 2015, 5, 1704-1716.	2.3	42
124	The Development of Incremental Sheet Forming from Flexible Forming to Fully Integrated Production of Sheet Metal Parts. <i>Lecture Notes in Production Engineering</i> , 2015, , 117-129.	0.4	9
125	Scalability of the mechanical properties of selective laser melting produced micro-struts. <i>Journal of Laser Applications</i> , 2015, 27, .	1.7	21
126	Designing New Forging Steels by ICME. <i>Lecture Notes in Production Engineering</i> , 2015, , 85-98.	0.4	8

#	ARTICLE	IF	CITATIONS
127	Steel – Ab Initio: Quantum Mechanics Guided Design of New Fe-Based Materials. , 2015, , 47-54.		1
128	A multiscale perspective on the kinetics of solid state transformations with application to bainite formation. AIMS Materials Science, 2015, 2, 319-345.	1.4	8
129	Impact of the Microstructure on the U–O Forming Simulations of a Ferrite–Pearlite Pipeline Tube. Steel Research International, 2014, 85, 1083-1098.	1.8	4
130	Characterization and Modeling of Failure Initiation in Bainite–Aided DP Steel. Advanced Engineering Materials, 2014, 16, 1370-1380.	3.5	18
131	Optimal Control of a Cooling Line for Production of Hot Rolled Dual Phase Steel. Steel Research International, 2014, 85, 1328-1333.	1.8	10
132	On the Spheroidized Carbide Dissolution and Elemental Partitioning in High Carbon Bearing Steel 100Cr6. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 595-606.	2.2	60
133	Micro–macro-characterisation and modelling of mechanical properties of gas metal arc welded (GMAW) DP600 steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 589, 1-14.	5.6	58
134	Modelling the strain-induced precipitation kinetics of vanadium carbonitride during hot working of precipitation-hardened Ferritic–Pearlitic steels. Acta Materialia, 2014, 71, 234-254.	7.9	30
135	Quantification of bake hardening effect in DP600 and TRIP700 steels. Materials & Design, 2014, 57, 479-486.	5.1	76
136	Study the effect of martensite banding on the failure initiation in dual-phase steel. Computational Materials Science, 2014, 87, 241-247.	3.0	57
137	ICMEg – the Integrated Computational Materials Engineering expert group – a new European coordination action. Integrating Materials and Manufacturing Innovation, 2014, 3, 20-24.	2.6	20
138	Characterisation of microstructure and modelling of flow behaviour of bainite-aided dual-phase steel. Computational Materials Science, 2013, 80, 134-141.	3.0	56
139	Characterization of Dual-Phase Steel Microstructure by Combined Submicrometer EBSD and EPMA Carbon Measurements. Microscopy and Microanalysis, 2013, 19, 996-1006.	0.4	76
140	Hot Deformation Behavior and Microstructural Evolution of a Nickel-Free Austenitic Steel with High Nitrogen Content. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5549-5555.	2.2	13
141	Microstructure evolution simulation in hot rolled DP600 steel during gas metal arc welding. Computational Materials Science, 2013, 68, 107-116.	3.0	31
142	Failure Initiation in Dual-Phase Steel. Key Engineering Materials, 2013, 586, 67-71.	0.4	13
143	Quantification of the effect of transformation-induced geometrically necessary dislocations on the flow-curve modelling of dual-phase steels. International Journal of Plasticity, 2013, 43, 128-152.	8.8	203
144	Derivation of anisotropic flow curves of ferrite–pearlite pipeline steel via a two-level homogenisation scheme. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 566, 143-156.	5.6	23

#	ARTICLE	IF	CITATIONS
145	Characterization and modelling of failure initiation in DP steel. Computational Materials Science, 2013, 75, 35-44.	3.0	89
146	Correlation between 2D and 3D flow curve modelling of DP steels using a microstructure-based RVE approach. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 129-139.	5.6	130
147	Modelling the Process Chain of Cold Rolled Dual Phase Steel for Automotive Application. , 2013, , 97-102.		0
148	Steel " ab Initio: Quantum Mechanics Guided Design of New Fe-Based Materials. , 2013, , 37-42.		1
149	Investigation into the effects of weld zone and geometric discontinuity on the formability reduction of tailor welded blanks. Computational Materials Science, 2012, 59, 158-164.	3.0	20
150	Modelling the effect of microstructural banding on the flow curve behaviour of dual-phase (DP) steels. Computational Materials Science, 2012, 52, 46-54.	3.0	124
151	Phase-field modelling of microstructure evolution during processing of cold-rolled dual phase steels. Integrating Materials and Manufacturing Innovation, 2012, 1, 19-31.	2.6	13
152	Fast algorithms for phase transformations in dual phase steels on a hot strip mill run-out table (ROT). Archives of Civil and Mechanical Engineering, 2012, 12, 305-311.	3.8	9
153	Failure analysis of DP600 steel during the cross-die test. Computational Materials Science, 2012, 64, 101-105.	3.0	58
154	Transformation-Induced, Geometrically Necessary, Dislocation-Based Flow Curve Modeling of Dual-Phase Steels: Effect of Grain Size. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3850-3869.	2.2	68
155	Flow Curve and Failure Modeling for High-Mn Steels on a Microstructural Scale. Steel Research International, 2012, 83, 340-345.	1.8	2
156	New attempt to wrinkling behavior analysis of tailor welded blanks during the deep drawing process. Materials & Design, 2012, 40, 407-414.	5.1	29
157	Entwicklung eines Al-reduzierten Einsatzstahls f1/4r die Hochtemperatur-Aufkohlung. HTM - Journal of Heat Treatment and Materials, 2012, 67, 202-210.	0.2	2
158	A study of microcrack formation in multiphase steel using representative volume element and damage mechanics. Computational Materials Science, 2011, 50, 1225-1232.	3.0	43
159	Phase-Field Modeling of Austenite Formation from a Ferrite plus Pearlite Microstructure during Annealing of Cold-Rolled Dual-Phase Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2516-2525.	2.2	45
160	Towards integrative computational materials engineering of steel components. Production Engineering, 2011, 5, 373-382.	2.3	14
161	Characterization of Gas Metal Arc Welded Hot Rolled DP600 Steel. Steel Research International, 2011, 82, 1408-1416.	1.8	6
162	Modelling of damage and failure in multiphase high strength DP and TRIP steels. Engineering Fracture Mechanics, 2011, 78, 469-486.	4.3	152

#	ARTICLE	IF	CITATIONS
163	Simulation der Ausscheidungsentwicklung entlang der Prozesskette für das Hochtemperatur-Aufkohlen*. HTM - Journal of Heat Treatment and Materials, 2011, 66, 217-229.	0.2	3
164	Simulation of Welding and Distortion in Ship Building. Advanced Engineering Materials, 2010, 12, 153-157.	3.5	5
165	Characterization and modelling techniques for gas metal arc welding of DP 600 sheet steels. Charakterisierung und Modellierungstechniken für Metallschutzgasschweißen von DP 600 Blech-Stählen. Materialwissenschaft Und Werkstofftechnik, 2010, 41, 972-983.	0.9	5
166	Effect of precipitation on hot formability of high nitrogen steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 519-525.	5.6	20
167	Thermodynamical Simulation of Carbon Profiles and Precipitation Evolution during High Temperature Case Hardening. Steel Research International, 2010, 81, 472-476.	1.8	12
168	Numerical Cooling Strategy Design for Hot Rolled Dual Phase Steel. Steel Research International, 2010, 81, 1001-1009.	1.8	17
169	Modelling of Microstructure and Flow Stress Evolution during Hot Forging. Steel Research International, 2010, 81, 1102-1116.	1.8	11
170	Prediction of abnormal grain growth during high temperature treatment. Computational Materials Science, 2010, 49, 209-216.	3.0	37
171	Feinkornbeständigkeit von Bauteilen aus dem mikrolegierten Werkstoff 18CrNiMo7-6 in Abhängigkeit der Prozesskette. HTM - Journal of Heat Treatment and Materials, 2010, 65, 257-268.	0.2	7
172	Experimental characterisation of a semi-solid A356 alloy during solidification and remelting. International Journal of Cast Metals Research, 2009, 22, 248-251.	1.0	4
173	Characterisation of formability behaviour of multiphase steels by micromechanical modelling. International Journal of Fracture, 2009, 157, 55-69.	2.2	62
174	Toward a virtual platform for materials processing. Jom, 2009, 61, 19-23.	1.9	32
175	Derivation and Variation in Composition-Dependent Stacking Fault Energy Maps Based on Subregular Solution Model in High-Manganese Steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 3076-3090.	2.2	592
176	Failure modeling of multiphase steels using representative volume elements based on real microstructures. Procedia Engineering, 2009, 1, 171-176.	1.2	32
177	Stretch-flangeability characterisation of multiphase steel using a microstructure based failure modelling. Computational Materials Science, 2009, 45, 617-623.	3.0	71
178	Modeling of the uniaxial tensile and compression behavior of semi-solid A356 alloys. Computational Materials Science, 2009, 45, 633-637.	3.0	8
179	Gefügesimulation beim Hochtemperatur-Einsatzarten. HTM - Journal of Heat Treatment and Materials, 2009, 64, 176-185.	0.2	1
180	Micromechanical modelling of damage behaviour of multiphase steels. Computational Materials Science, 2008, 43, 27-35.	3.0	82

#	ARTICLE	IF	CITATIONS
181	Experimental and numerical failure criterion for formability prediction in sheet metal forming. Computational Materials Science, 2008, 43, 43-50.	3.0	79
182	A Numerical and Experimental Investigation into Hot Stamping of Boron Alloyed Heat Treated Steels. Steel Research International, 2008, 79, 77-84.	1.8	85
183	Phase Transformation Modelling and Parameter Identification from Dilatometric Investigations. Steel Research International, 2008, 79, 793-799.	1.8	4
184	Microstructure Based Formability Characterization of Multi Phase Steels Using Damage Mechanics. Key Engineering Materials, 2007, 348-349, 217-220.	0.4	0
185	Experimental and Numerical Failure Criteria for Sheet Metal Forming. Steel Research International, 2007, 78, 762-770.	1.8	5
186	Numerical Modelling of Toughness and Failure Processes in Steel Structures. Steel Research International, 2007, 78, 224-235.	1.8	8
187	Micromechanics-based modelling of properties and failure of multiphase steels. Computational Materials Science, 2007, 39, 17-22.	3.0	54
188	Stress based failure criterion for formability characterisation of metastable steels. Computational Materials Science, 2007, 39, 43-48.	3.0	22
189	Experimental observations on the correlation between microstructure and fracture of multiphase steels. International Journal of Materials Research, 2006, 97, 1723-1731.	0.3	24
190	Micromechanical Damage Simulations of TRIP Steels. Materials Science Forum, 2003, 426-432, 1355-1360.	0.3	10
191	Ductile Damage Prediction on the Basis of Microstructural Observations. Key Engineering Materials, 2003, 251-252, 351-356.	0.4	4
192	Damage parameter identification by a periodic homogenization approach. Computational Materials Science, 2002, 25, 159-165.	3.0	12
193	Damage evolution in experiments and simulation in a construction steel. Computational Materials Science, 1999, 16, 206-212.	3.0	6
194	Simulation of Phase Changes During Thermal Treatments of Various Metal Alloys (TP B2). , 0, , 149-160.		0
195	From Casting to Product Properties: Modeling the Process Chain of Steels (TP C7). , 0, , 33-47.		0
196	Quantification of Phase Transformation Kinetics under Thermomechanical Conditions Using Dilatometry Data. Advanced Materials Research, 0, 622-623, 581-584.	0.3	2
197	Application Specific Microstructure Development in Microalloyed Bainitic Hot Strip. Materials Science Forum, 0, 949, 76-84.	0.3	0
198	Autonomous Interpretation of the Microstructure of Steels and Special Alloys. Materials Science Forum, 0, 949, 24-31.	0.3	13

#	ARTICLE	IF	CITATIONS
199	Study on determination of flow behaviour of 6060-aluminium and AZ31-magnesium thin sheet by means of stacked compression test. IOP Conference Series: Materials Science and Engineering, 0, 480, 012023.	0.6	8
200	Effect of Spheroidization Annealing on Pearlite Banding. Materials Science Forum, 0, 949, 40-47.	0.3	4
201	Modeling of Microstructural Evolution in the Hot Rolling Process of Fe-16Cr-4Mn-4Ni-0.05C-0.17N Austenitic Stainless Steel. Materials Science Forum, 0, 949, 93-100.	0.3	0
202	Copper-Alloyed PHFP Steel for Energy-Efficient and Distortion-Reduced Production of Cold-Formed, High-Strength Structural Components. Materials Science Forum, 0, 959, 161-165.	0.3	0
203	Effect of multi-axial deformation on the structure and properties of a nickel-enriched Ti-Ni shape memory alloy. IOP Conference Series: Materials Science and Engineering, 0, 1014, 012019.	0.6	1
204	Improving Mechanical Properties of Twin-Roll Cast AZ31 by Wire Rolling. Materials Science Forum, 0, 1016, 957-963.	0.3	2
205	Orthotropic Behaviour of Magnesium AZ31 Sheet during Strain Localization. Materials Science Forum, 0, 1016, 541-552.	0.3	0
206	Hot crack susceptibility of cast Mg 97 Y 2 Zn 1. Engineering Reports, 0, , e12380.	1.7	1
207	ICME-A Mere Coupling of Models or a Discipline of Its Own?. , 0, , 285-290.		1
208	Modelling the Process Chain of Cold Rolled Dual Phase Steel for Automotive Application. , 0, , 97-102.		0
209	Steel-Ab Initio: Quantum Mechanics Guided Design of New Fe-Based Materials. , 0, , 37-42.		0
210	Extension of the Freiberg Layer Model by Means of Elastic-Plastic Material Behavior. Steel Research International, 0, , 2100373.	1.8	2
211	Extension of the Freiberg Layer Model by Means of Solidification for Roll Casting. Advanced Engineering Materials, 0, , 2101546.	3.5	0