

# Hana Jirkova

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9245963/publications.pdf>

Version: 2024-02-01

80  
papers

538  
citations

933447

10  
h-index

940533

16  
g-index

82  
all docs

82  
docs citations

82  
times ranked

283  
citing authors

#	ARTICLE	IF	CITATIONS
1	A New Alloying Concept for Low-Density Steels. <i>Materials</i> , 2022, 15, 2539.	2.9	2
2	Effects of Heat Treatment on Additively Manufactured 316L Stainless Steel. <i>Manufacturing Technology</i> , 2022, 22, 261-266.	1.4	4
3	High-strength steel components produced by hot metal gas forming. <i>Materials Science and Technology</i> , 2021, 37, 693-701.	1.6	5
4	Potential role of machine learning techniques for modeling the hardness of OPH steels. <i>Materials Today Communications</i> , 2021, 26, 101806.	1.9	9
5	Hot Rolling vs. Forging: Newly Developed Fe-Al-O Based OPH Alloy. <i>Metals</i> , 2021, 11, 228.	2.3	7
6	Determining Forming Limit Diagrams Using Sub-Sized Specimen Geometry and Comparing FLD Evaluation Methods. <i>Metals</i> , 2021, 11, 484.	2.3	7
7	Resistance of tool steel processed by unconventional forming technology against abrasive wear. <i>Manufacturing Technology</i> , 2021, 21, 241-246.	1.4	2
8	Experimental modelling of materials properties and microstructure of new high-strength steels for press-hardening and hot metal gas forming. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1161, 012003.	0.6	0
9	Use of Thixoforming as a Manufacturing Method for Metallic Composites. <i>Metals and Materials International</i> , 2020, 26, 1420-1429.	3.4	3
10	The Role of Expanded Polystyrene and Geocell in Enhancing the Behavior of Buried HDPE Pipes under Trench Loading Using Numerical Analyses. <i>Geosciences (Switzerland)</i> , 2020, 10, 251.	2.2	10
11	Combination of press-hardening and isothermal holding in the treatment of high-strength steels. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 723, 012012.	0.6	3
12	The Effect of Heat Treatment on the Tribological Properties and Room Temperature Corrosion Behavior of Fe-Cr-Al-Based OPH Alloy. <i>Materials</i> , 2020, 13, 5465.	2.9	5
13	High Temperature and Corrosion Properties of A Newly Developed Fe-Al-O Based OPH Alloy. <i>Metals</i> , 2020, 10, 167.	2.3	6
14	Grain refinement in hypereutectoid steel by semi-solid processing followed by mechanical working. , 2020, , .		0
15	Microstructure evolution and creep strength of new-generation oxide dispersion strengthened alloys with high volume fraction of nano-oxides. <i>Procedia Structural Integrity</i> , 2019, 17, 427-433.	0.8	4
16	Influence of Austenite Grain Size on Mechanical Properties after Quench and Partitioning Treatment of a 42SiCr Steel. <i>Metals</i> , 2019, 9, 577.	2.3	6
17	Performance Evaluation of Pavements Constructed on EPS Geofom Backfill Using Repeated Plate Load. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 221, 012007.	0.3	0
18	EFFECTS OF COOLING RATE ON THE VOLUME FRACTION OF RETAINED AUSTENITE IN FORGINGS FROM HIGH-STRENGTH Mn-Si STEELS. <i>Acta Metallurgica Slovaca</i> , 2019, 25, 93-100.	0.7	2

#	ARTICLE	IF	CITATIONS
19	USE OF MULTI-PHASE TRIP STEEL FOR PRESS-HARDENING TECHNOLOGY. Acta Metallurgica Slovaca, 2019, 25, 101-106.	0.7	11
20	Influence of Cooling Rate on Microstructure and Mechanical Properties of 42SiCr Steel after Q&P Process. Manufacturing Technology, 2019, 19, 583-588.	1.4	6
21	Determination of Transformation Temperatures of Advanced High-Strength Steels and Their Use in Designing Q&P Process Routes. Manufacturing Technology, 2019, 19, 18-22.	1.4	2
22	Integration of Press-Hardening Technology into Processing of Advanced High Strength Steels. Materials Science Forum, 2018, 941, 317-322.	0.3	2
23	Microstructure Evolution in ODS Alloys with a High-Volume Fraction of Nano Oxides. Metals, 2018, 8, 1079.	2.3	29
24	Effect of the Parameters of Semi-Solid Processing on the Elimination of Sharp-Edged Primary Chromium Carbides from Tool Steel. Metals, 2018, 8, 713.	2.3	12
25	Q&P process in press-hardening of 42SiCr steel. Acta Metallurgica Slovaca, 2018, 24, 52.	0.7	1
26	NEW TREATMENT ROUTE FOR CLOSED-DIE FORGINGS OF STEELS WITH 2.5% MANGANESE. Acta Metallurgica Slovaca, 2018, 24, 119-125.	0.7	1
27	EFFECTS OF Q&P PROCESS PARAMETERS ON PROPERTIES OF 42SiCr STEEL. Acta Metallurgica Slovaca, 2018, 24, 126.	0.7	4
28	Complex shape metallic glass composites produced in one step by mini-thixoforming. International Journal of Material Forming, 2017, 10, 173-180.	2.0	0
29	High Versatility of Niobium Alloyed AHSS. Archives of Metallurgy and Materials, 2017, 62, 1485-1491.	0.6	14
30	Semi-solid processing of high-chromium tool steel to obtain microstructures without carbide network. IOP Conference Series: Materials Science and Engineering, 2017, 179, 012036.	0.6	1
31	Microstructure Evaluation of New ODS Alloys with Fe-Al Matrix and Al <sub>2</sub> O <sub>3</sub> Particles. , 2017, , ,		3
32	EFFECT OF HEATING TEMPERATURE DURING SEMI-SOLID PROCESSING ON STRUCTURE OF X210CR12 STEEL. Acta Metallurgica Slovaca, 2017, 23, 229-235.	0.7	4
33	Influence of thermomechanical treatment on the grain-growth behaviour of new Fe-Al based alloys with fine Al <sub>2</sub> O <sub>3</sub> precipitates. Materiali in Tehnologije, 2017, 51, 759-768.	0.5	11
34	Innovative Process to Eliminate Ledeburite Network in Tool Steel. Manufacturing Technology, 2017, 17, 940-945.	1.4	2
35	THERMO-MECHANICAL TREATMENT OF 42SiCr AND 42MnSi STEELS. Acta Metallurgica Slovaca, 2017, 23, 244-250.	0.7	1
36	Steel - a Classic Material with a Large Potential for the Future. IOP Conference Series: Materials Science and Engineering, 2016, 118, 012001.	0.6	0

#	ARTICLE	IF	CITATIONS
37	Capabilities of Unconventional Processing of Multiphase AHSS Steels. IOP Conference Series: Materials Science and Engineering, 2016, 118, 012023.	0.6	1
38	Obtaining a TRIP microstructure by thermomechanical treatment without isothermal holding. IOP Conference Series: Materials Science and Engineering, 2016, 118, 012024.	0.6	1
39	Material and technological modelling of closed-die forging. Materiali in Tehnologije, 2016, 50, 499-503.	0.5	4
40	Behaviour of new ODS alloys under single and multiple deformation. Materiali in Tehnologije, 2016, 50, 891-898.	0.5	12
41	Continuous Cooling of CMnSi TRIP Steel. Materials Today: Proceedings, 2015, 2, S677-S680.	1.8	10
42	Effect of Input Structure of Blank on Development of Final Structure when Processing at Temperatures between Solidus and Liquidus. Procedia Engineering, 2015, 100, 722-729.	1.2	2
43	The Effect of Chromium on Microstructure Development During Q-P Process. Materials Today: Proceedings, 2015, 2, S627-S630.	1.8	20
44	Various Approaches to Accelerated Carbide Spheroidization of 54SiCr Steel. Key Engineering Materials, 2015, 647, 3-8.	0.4	2
45	Combination of International High Pressure Forming and Q-P Process for Production of Hollow Products from Ahs Steel. Advanced Materials Research, 2015, 1127, 9-15.	0.3	3
46	Material-technological Modelling of C45 Steel Die Forgings. Procedia Engineering, 2015, 100, 714-721.	1.2	7
47	Development of numerical models for the heat-treatment-process optimisation in a closed-die forging production. Materiali in Tehnologije, 2015, 49, 471-475.	0.5	1
48	Investigation on new creep- and oxidation-resistant materials. Materiali in Tehnologije, 2015, 49, 645-651.	0.5	7
49	Production of shaped semi-products from AHS steels by internal pressure. Materiali in Tehnologije, 2015, 49, 739-744.	0.5	3
50	Designing Q&P Process for Experimental Steel with 0.47 % Carbon Content. Advanced Materials Research, 2014, 887-888, 257-261.	0.3	1
51	Influence of metastable retained austenite on macro and micromechanical properties of steel processed by the Q&P process. Journal of Alloys and Compounds, 2014, 615, S163-S168.	5.5	50
52	Microstructure of tool steel upon combined semi-solid processing and thermomechanical treatment. Journal of Alloys and Compounds, 2014, 586, S165-S167.	5.5	8
53	Modification of metastable microstructure of CPM15V steel by heat exposure after treatment in semi-solid state. Journal of Alloys and Compounds, 2014, 586, S159-S164.	5.5	9
54	Optimization of the Q-P Process Parameters for Low Alloyed Steels with 0.2% C. Archives of Metallurgy and Materials, 2014, 59, 1205-1210.	0.6	5

#	ARTICLE	IF	CITATIONS
55	The Effect of Alloying on Mechanical Properties of Advanced High Strength Steels. Archives of Metallurgy and Materials, 2014, 59, 1189-1192.	0.6	19
56	Microstructure of X210Cr12 steel after the forming in semi-solid state visualized by very low energy SEM in ultra high vacuum. Applied Surface Science, 2013, 275, 403-408.	6.1	10
57	Q-P Process on Steels with Various Carbon and Chromium Contents. , 2013, , 819-824.		1
58	The influence of deformation and cooling parameters after transition through semi-solid state on structure development of ledeburite steel. Journal of Alloys and Compounds, 2012, 536, S204-S207.	5.5	11
59	Micro-Compression Test of Thixoformed Austenite. Solid State Phenomena, 2012, 192-193, 215-218.	0.3	2
60	Microstructure and Mechanical Behavior of a Mini-Thixoformed Tool Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3034-3038.	2.2	15
61	Metastable structure of austenite base obtained by rapid solidification in a semi-solid state. Journal of Alloys and Compounds, 2011, 509, S312-S315.	5.5	19
62	Fatigue properties of a low alloy 42SiCr steel heat treated by quenching and partitioning process. Procedia Engineering, 2011, 10, 3310-3315.	1.2	12
63	Unconventional structure of X210Cr12 steel obtained by thixoforming. Journal of Alloys and Compounds, 2010, 504, S500-S503.	5.5	21
64	Structure of miniature components from steel produced by forming in semi-solid state. Transactions of Nonferrous Metals Society of China, 2010, 20, s1037-s1041.	4.2	15
65	The Influence of Thermomechanical Treatment of TRIP Steel on its Final Microstructure. Journal of Materials Engineering and Performance, 2009, 18, 385-389.	2.5	6
66	Influence of the chemical composition of 20MoCrS4 and low-alloyed TRIP steel on the intensity of high temperature corrosion. Materials and Corrosion - Werkstoffe Und Korrosion, 2007, 58, 704-709.	1.5	1
67	Comparison of intensity of high temperature surface damage for 20MoCrS4 steel with varying parameters of dynamical heating. Materials Science and Technology, 2006, 22, 1444-1448.	1.6	0
68	Advanced Material-Technological Modelling of Complex Dynamic Thermomechanical Processes. Materials Science Forum, 0, 654-656, 1594-1597.	0.3	2
69	The Effect of Mn and Si on the Properties of Advanced High Strength Steels Processed by Quenching and Partitioning. Materials Science Forum, 0, 654-656, 94-97.	0.3	21
70	Experimental and Numerical Investigation of the Steel X210Cr12 Forming in Semi-Solid State. Advanced Materials Research, 0, 214, 461-466.	0.3	0
71	Effect of Quenching and Partitioning Temperatures in the Q-P Process on the Properties of AHSS with Various Amounts of Manganese and Silicon. Materials Science Forum, 0, 706-709, 2734-2739.	0.3	27
72	Rapid Spheroidization and Grain Refinement Caused by Thermomechanical Treatment for Plain Structural Steel. Materials Science Forum, 0, 706-709, 2770-2775.	0.3	5

#	ARTICLE	IF	CITATIONS
73	Mini-Thixoforming of a Steel Produced by Powder Metallurgy. Solid State Phenomena, 0, 192-193, 500-505.	0.3	7
74	Steels with High Temperature Carbides - New Possibilities for Semi-Solid State Processing. Solid State Phenomena, 0, 217-218, 325-331.	0.3	0
75	Semi-Solid Processing of Powder Steels in Cryogenically-Cooled Die. Materials Science Forum, 0, 783-786, 801-806.	0.3	4
76	Microstructural and Hardness Evolution of New Developed OPH Steels. Solid State Phenomena, 0, 294, 92-97.	0.3	2
77	Corrosion Behavior and Mechanical Properties of New Developed Oxide Precipitation Hardened Steels. Key Engineering Materials, 0, 846, 87-92.	0.4	2
78	Annealing Effects on the Microstructure and Thermomechanical Properties of New-Generation ODS Alloys. Key Engineering Materials, 0, 834, 67-74.	0.4	3
79	Influence of Chromium and Niobium on the Press-Hardening Process of Multiphase Low-Alloy TRIP Steels. Materials Science Forum, 0, 1016, 636-641.	0.3	4
80	Assessment the Role of Expanded-Polysterene Block and Grogrid Layer on Behavior of Buried Pipeline. IOP Conference Series: Earth and Environmental Science, 0, 609, 012014.	0.3	2