

Sophie Primig

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Correlative Approach for Atom Probe Sample Preparation of Interfaces Using Plasma Focused Ion Beam Without Lift-Out. <i>Microscopy and Microanalysis</i> , 2022, 28, 998-1008.	0.2	13
2	<i>Electron Microscopy Methods.</i> , 2022, , 203-211.		1
3	Investigation of the Self Tempering Effect of Martensite by Means of Atom Probe Tomography. <i>Praktische Metallographie/Practical Metallography</i> , 2022, 52, 374-383.	0.1	6
4	Preparation of Carbide-Free Bainitic Steels for EBSD Investigations. <i>Praktische Metallographie/Practical Metallography</i> , 2022, 52, 384-395.	0.1	5
5	On the detailed morphological and chemical evolution of phases during laser powder bed fusion and common post-processing heat treatments of IN718. <i>Additive Manufacturing</i> , 2022, 50, 102540.	1.7	6
6	Multi-scale characterisation of microstructure and texture of 316L stainless steel manufactured by laser powder bed fusion. <i>Materials Characterization</i> , 2022, 184, 111663.	1.9	25
7	Evolution of microstructure and mechanical properties in 2205 duplex stainless steels during additive manufacturing and heat treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 835, 142695.	2.6	53
8	Enhancing the repassivation ability and localised corrosion resistance of an additively manufactured duplex stainless steel by post-processing heat treatment. <i>Corrosion Science</i> , 2022, 198, 110106.	3.0	14
9	Texture evolution in a CrMnFeCoNi high-entropy alloy manufactured by laser powder bed fusion. <i>Journal of Materials Science</i> , 2022, 57, 9714-9725.	1.7	10
10	Local composition and nanoindentation response of γ -phase and adjacent γ -free zone in a Ni-based superalloy. <i>Materials Research Letters</i> , 2022, 10, 301-309.	4.1	3
11	Influence of grain boundary precipitation and segregation on cracking of cast and wrought superalloys containing B and Zr. <i>Materials Characterization</i> , 2022, 187, 111881.	1.9	13
12	Advanced quantification of the site-occupancy in ordered multi-component intermetallics using atom probe tomography. <i>Intermetallics</i> , 2022, 145, 107538.	1.8	3
13	On the microstructure and texture evolution in 17-4 PH stainless steel during laser powder bed fusion: Towards textural design. <i>Journal of Materials Science and Technology</i> , 2022, 117, 183-195.	5.6	23
14	Lath martensite substructure evolution in low-carbon microalloyed steels. <i>Journal of Materials Science</i> , 2022, 57, 10359-10378.	1.7	5
15	Formation of a transition V-rich structure during the β' to β phase transformation process in additively manufactured Ti-6Al-4 V. <i>Acta Materialia</i> , 2022, 235, 118104.	3.8	22
16	Formation of intergranular phases in precipitation hardening nickel-based alloy 725. <i>Acta Materialia</i> , 2022, 236, 118108.	3.8	4
17	Intergranular precipitation and chemical fluctuations in an additively manufactured 2205 duplex stainless steel. <i>Scripta Materialia</i> , 2022, 219, 114894.	2.6	10
18	Evidence of in-situ Cu clustering as a function of laser power during laser powder bed fusion of 17-4 PH stainless steel. <i>Scripta Materialia</i> , 2022, 219, 114896.	2.6	9

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19	Grain boundary character distribution in an additively manufactured austenitic stainless steel. <i>Scripta Materialia</i> , 2021, 192, 115-119.	2.6	39
20	Introducing transformation twins in titanium alloys: an evolution of β -variants during additive manufacturing. <i>Materials Research Letters</i> , 2021, 9, 119-126.	4.1	25
21	Additive manufacturing of steels: a review of achievements and challenges. <i>Journal of Materials Science</i> , 2021, 56, 64-107.	1.7	289
22	Influence of Finish Rolling Temperature and Molybdenum Addition on Strengthening of Low Carbon Niobium Steels – A Computational and Experimental Study. <i>Steel Research International</i> , 2021, 92, 2100085.	1.0	2
23	3D characterization of microstructural evolution and variant selection in additively manufactured Ti-6Al-4V. <i>Journal of Materials Science</i> , 2021, 56, 14763-14782.	1.7	10
24	Evolution of nanoscale precipitates during common Alloy 718 ageing treatments. <i>Materials and Design</i> , 2021, 205, 109762.	3.3	13
25	Correlative analysis of grain boundary precipitates in Ni-based superalloy René 41. <i>Materials Characterization</i> , 2021, 178, 111250.	1.9	14
26	Phase transformation pathways in Ti-6Al-4V manufactured via electron beam powder bed fusion. <i>Acta Materialia</i> , 2021, 215, 117131.	3.8	25
27	3D electron backscatter diffraction characterization of fine β titanium microstructures: collection, reconstruction, and analysis methods. <i>Ultramicroscopy</i> , 2021, 230, 113394.	0.8	7
28	Microstructure-property gradients in Ni-based superalloy (Inconel 738) additively manufactured via electron beam powder bed fusion. <i>Additive Manufacturing</i> , 2021, 46, 102121.	1.7	9
29	On the constitutive relationship between solidification cells and the fatigue behaviour of IN718 fabricated by laser powder bed fusion. <i>Additive Manufacturing</i> , 2021, 47, 102347.	1.7	3
30	Formation and 3D morphology of interconnected β microstructures in additively manufactured Ti-6Al-4V. <i>Materialia</i> , 2021, 20, 101201.	1.3	7
31	Al-Cu-Ce(-Zr) alloys with an exceptional combination of additive processability and mechanical properties. <i>Additive Manufacturing</i> , 2021, 48, 102404.	1.7	9
32	Effects of processing heterogeneities on the micro- to nanostructure strengthening mechanisms of an alloy 718 turbine disk. <i>Materials and Design</i> , 2021, 212, 110295.	3.3	18
33	On the pitting corrosion of 2205 duplex stainless steel produced by laser powder bed fusion additive manufacturing in the as-built and post-processed conditions. <i>Materials and Design</i> , 2021, 212, 110260.	3.3	24
34	Microalloying effects of Mo versus Cr in HSLA steels with ultrafine-grained ferrite microstructures. <i>Materials and Design</i> , 2020, 185, 108278.	3.3	20
35	On the hot-worked microstructure of a face-centered cubic Al _{0.3} CoCrFeNi high entropy alloy. <i>Scripta Materialia</i> , 2020, 178, 144-149.	2.6	28
36	Effect of scanning strategy on variant selection in additively manufactured Ti-6Al-4V. <i>Additive Manufacturing</i> , 2020, 36, 101581.	1.7	13

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37	3D electron backscatter diffraction study of $\hat{\Gamma}$ lath morphology in additively manufactured Ti-6Al-4V. <i>Ultramicroscopy</i> , 2020, 218, 113073.	0.8	25
38	Effect of cyclic rapid thermal loadings on the microstructural evolution of a CrMnFeCoNi high-entropy alloy manufactured by selective laser melting. <i>Acta Materialia</i> , 2020, 196, 609-625.	3.8	89
39	Five-parameter characterization of intervariant boundaries in additively manufactured Ti-6Al-4V. <i>Materials and Design</i> , 2020, 196, 109177.	3.3	29
40	Multimodal $\hat{\Gamma}$ precipitation in Inconel-738 Ni-based superalloy during electron-beam powder bed fusion additive manufacturing. <i>Journal of Materials Science</i> , 2020, 55, 13342-13350.	1.7	31
41	Dynamic recrystallization in AlXCoCrFeNi duplex high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2020, 830, 154720.	2.8	28
42	An observation of the binder microstructure in WC-(Co+Ru) cemented carbides using transmission Kikuchi diffraction. <i>Scripta Materialia</i> , 2020, 183, 55-60.	2.6	16
43	Microstructure-property relationships in directly aged Alloy 718 turbine disks. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 776, 138967.	2.6	28
44	On the early stages of precipitation during direct ageing of Alloy 718. <i>Acta Materialia</i> , 2020, 188, 492-503.	3.8	58
45	An Initial Report on the Structure-Property Relationships of a High-Strength Low-Alloy Steel Subjected to Advanced Thermomechanical Processing in Ferrite. <i>Steel Research International</i> , 2020, 91, 1900596.	1.0	0
46	Interplay of dislocation substructure and elastic strain evolution in additively manufactured Inconel 625. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 785, 139380.	2.6	18
47	Advanced Thermo-mechanical Process for Homogenous Hierarchical Microstructures in HSLA Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5800-5815.	1.1	4
48	Effect of Cyclic Thermal Loadings on the Microstructural Evolution of a Cantor Alloy in 3D Printing Processes. <i>Microscopy and Microanalysis</i> , 2019, 25, 2568-2569.	0.2	2
49	Correlative study of lattice imperfections in long-range ordered, nano-scale domains in a Fe-Co-Mo alloy. <i>Ultramicroscopy</i> , 2019, 204, 91-100.	0.8	5
50	Guidelines for increasing the oxidation resistance of Ti-Al-N based coatings. <i>Thin Solid Films</i> , 2019, 688, 137290.	0.8	30
51	Atom Probe Microscopy of Strengthening Effects in Alloy 718. <i>Microscopy and Microanalysis</i> , 2019, 25, 470-480.	0.2	14
52	Experimental and numerical investigations of the $\hat{\Gamma}$ and $\hat{\Gamma}$ precipitation kinetics in Alloy 718. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 723, 314-323.	2.6	50
53	Electrochemical performance and structure of $\text{Al}_{2-x}\text{W}_3\text{Mo}_x\text{O}_{12}$. <i>CrystEngComm</i> , 2018, 20, 1352-1360.	1.3	13
54	How grain boundary chemistry controls the fracture mode of molybdenum. <i>Materials and Design</i> , 2018, 142, 36-43.	3.3	52

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55	Engineering Hierarchical Microstructures via Advanced Thermo-Mechanical Processing of a Modern HSLA Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 6337-6350.	1.1	9
56	On conventional versus direct ageing of Alloy 718. Acta Materialia, 2018, 156, 116-124.	3.8	81
57	High-resolution characterization of the martensite-austenite constituent in a carbide-free bainitic steel. Materials Characterization, 2018, 144, 182-190.	1.9	19
58	The effect of cold-rolling on the microstructure and corrosion behaviour of 316L alloy in FLiNaK molten salt. Corrosion Science, 2018, 142, 133-144.	3.0	38
59	Influence of Heat Treatment on Microstructure Stability and Mechanical Properties of a Carbide-Free Bainitic Steel. Advanced Engineering Materials, 2017, 19, 1600658.	1.6	11
60	Modeling of precipitation strengthening in Inconel 718 including non-spherical precipitates. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 055005.	0.8	14
61	Cold pilgering of duplex steel tubes: The response of austenite and ferrite to excessive cold deformation up to high strains. Materials Characterization, 2017, 128, 257-268.	1.9	9
62	Correlating Atom Probe Crystallographic Measurements with Transmission Kikuchi Diffraction Data. Microscopy and Microanalysis, 2017, 23, 279-290.	0.2	46
63	Atom probe study of B2 order and A2 disorder of the FeCo matrix in an Fe-Co-Mo-alloy. Micron, 2017, 98, 24-33.	1.1	5
64	On grain boundary segregation in molybdenum materials. Materials and Design, 2017, 135, 204-212.	3.3	46
65	Precipitation in simultaneously nitrided and aged Mo-containing maraging steel. Materials Characterization, 2017, 131, 21-30.	1.9	13
66	Thermodynamic evaluation of the Mo-rich corner of the Mo-Hf-C system including O impurities. Journal of Alloys and Compounds, 2017, 695, 372-381.	2.8	5
67	Early Stages of Cu Precipitation in 15-5 PH Maraging Steel Revisited - Part I: Experimental Analysis. Steel Research International, 2017, 88, 1600084.	1.0	10
68	Early Stages of Cu Precipitation in 15-5 PH Maraging Steel Revisited - Part II: Thermokinetic Simulation. Steel Research International, 2017, 88, 1600085.	1.0	4
69	Evolution of strain-induced hafnium carbides in a molybdenum base Mo-Hf-C alloy studied by small-angle neutron scattering and complementary methods. Journal of Alloys and Compounds, 2016, 688, 619-631.	2.8	10
70	Induction Tempering vs Conventional Tempering of a Heat-Treatable Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3694-3702.	1.1	30
71	On the evolution of secondary hardening carbides during continuous versus isothermal heat treatment of high speed steel HS 6-5-2. Materials Characterization, 2016, 120, 323-330.	1.9	29
72	Fracture Behavior and Delamination Toughening of Molybdenum in Charpy Impact Tests. Jom, 2016, 68, 2854-2863.	0.9	14

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73	Impact of the B2 ordering behavior on the mechanical properties of a FeCoMo alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 662, 511-518.	2.6	25
74	Correlative microscopy of a carbide-free bainitic steel. Micron, 2016, 81, 1-7.	1.1	9
75	Morphology change of retained austenite during austempering of carbide-free bainitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 664, 236-246.	2.6	59
76	On the chemistry of the carbides in a molybdenum base Mo-Hf-C alloy produced by powder metallurgy. Journal of Alloys and Compounds, 2016, 654, 445-454.	2.8	19
77	Evolution of Precipitates and Martensite Substructure During Continuous Heat Treatment. Materials Today: Proceedings, 2015, 2, S619-S622.	0.9	6
78	Atom Probe Tomography of Carbides Occurring in "Carbide-free" Bainitic Steels. Materials Today: Proceedings, 2015, 2, S925-S928.	0.9	6
79	B2 order transformation in a Fe " 25 at% Co " 9 at% Mo alloy. Materials Research Society Symposia Proceedings, 2015, 1760, 175.	0.1	2
80	Martensitic Transformation of a High-speed Tool Steel During Continuous Heat Treatment. Materials Today: Proceedings, 2015, 2, S635-S638.	0.9	7
81	Structural characterization of "carbide-free" bainite in a Fe"0.2C"1.5Si"2.5Mn steel. Materials Characterization, 2015, 102, 85-91.	1.9	49
82	Texture Evolution during Deformation of a Mo-Hf-C Alloy Studied with Electron Backscatter Diffraction. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2015, 160, 226-230.	0.4	3
83	Boron Grain Boundary Segregation in a Heat Treatable Steel. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2015, 160, 204-208.	0.4	3
84	Grain boundary study of technically pure molybdenum by combining APT and TKD. Ultramicroscopy, 2015, 159, 445-451.	0.8	36
85	Orientation dependent recovery and recrystallization behavior of hot-rolled molybdenum. International Journal of Refractory Metals and Hard Materials, 2015, 48, 179-186.	1.7	30
86	Influence of the Sample Preparation Technique on the 1/4 Phase Fraction Analysis in a Fe-25Co-15Mo Alloy by Means of XRD. Praktische Metallographie/Practical Metallography, 2015, 52, 323-333.	0.1	3
87	The Role of Metallography in the Development and Characterization of High-Performance Materials. Praktische Metallographie/Practical Metallography, 2015, 52, 59-74.	0.1	1
88	Induction Hardening vs Conventional Hardening of a Heat Treatable Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5657-5666.	1.1	20
89	New findings on the atomistic mechanisms active during mechanical milling of a Fe-Y2O3 model alloy. Journal of Applied Physics, 2014, 115, 124313.	1.1	7
90	Origin of high temperature oxidation resistance of Ti"Al"Ta"N coatings. Surface and Coatings Technology, 2014, 257, 78-86.	2.2	77

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91	On the precipitation mechanism in the molybdenum based alloy MHC (Mo ₅₀ Hf ₅₀ C). Powder Metallurgy, 2014, 57, 311-313.	0.9	12
92	Atom probe study of grain boundary segregation in technically pure molybdenum. Materials Characterization, 2014, 87, 95-103.	1.9	43
93	Early Stages of Precipitation: Experiments and Modelling. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2014, 159, 5-11.	0.4	0
94	The Effect of Zr Incorporation Caused by Ball Abrasion in a Milled Fe-Y ₂ O ₃ Model Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1552-1558.	1.1	5
95	Influence of Deformation on the Precipitation Behavior of Nb(CN) in Austenite and Ferrite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4210-4219.	1.1	24
96	A novel approach for site-specific atom probe specimen preparation by focused ion beam and transmission electron backscatter diffraction. Ultramicroscopy, 2014, 144, 9-18.	0.8	107
97	Atom probe study of vanadium interphase precipitates and randomly distributed vanadium precipitates in ferrite. Micron, 2013, 54-55, 57-64.	1.1	16
98	The evolution of Y distribution during the processing route of mechanically alloyed iron studied by means of atom probe tomography. International Journal of Materials Research, 2013, 104, 1088-1095.	0.1	7
99	Textural Evolution During Dynamic Recovery and Static Recrystallization of Molybdenum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 4794-4805.	1.1	41
100	Static Recrystallization of Molybdenum After Deformation Below 0.5*T _M (K). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 4806-4818.	1.1	17
101	Influence of the heating rate on the recrystallization behavior of molybdenum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 535, 316-324.	2.6	32
102	Separation of overlapping retained austenite decomposition and cementite precipitation reactions during tempering of martensitic steel by means of thermal analysis. Thermochemica Acta, 2011, 526, 111-117.	1.2	53
103	SEM and TEM Investigations of Recovery and Recrystallization in Technically Pure Molybdenum. Praktische Metallographie/Practical Metallography, 2011, 48, 344-355.	0.1	9
104	On the recrystallization behavior of technically pure molybdenum. International Journal of Refractory Metals and Hard Materials, 2010, 28, 703-708.	1.7	67
105	Transformation from continuous-to-isothermal aging applied on a maraging steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4399-4405.	2.6	21
106	EBSD Study of the Microstructural Evolution during Hot Compression Testing of a Superduplex Steel. Materials Science Forum, 0, 783-786, 973-979.	0.3	6
107	On the Behavior of Yttria/Yttrium during Mechanical Alloying of a Fe - Y ₂ O ₃ Model Alloy System. Advanced Materials Research, 0, 922, 598-603.	0.3	0
108	Preface to the special issue: microstructure design in metal additive manufacturing – physical metallurgy revisited. Journal of Materials Science, 0, , .	1.7	0

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109	Editorial: The June 2022 cover paper. Journal of Materials Science, 0, , 1.	1.7	0
110	Temperature sensitivity maps of silicon wafers from photoluminescence imaging: The effect of gettering and hydrogenation. Progress in Photovoltaics: Research and Applications, 0, , .	4.4	1