Svea Mayer

List of Publications by Year
in descending order

93 papers	4,242 citations	136950 32 h-index	118850 62 g-index
95 all docs	95 docs citations	95 times ranked	1232 citing authors

#	Article	IF	Citations
1	In-situ observation of the phase evolution during an electromagnetic-assisted sintering experiment of an intermetallic Î³-TiAl based alloy. Scripta Materialia, 2022, 206, 114233.	5.2	14
2	Alloy design strategy for microstructural-tailored scandium-modified aluminium alloys for additive manufacturing. Scripta Materialia, 2022, 207, 114277.	5.2	30
3	Exploring Structural Changes, Manufacturing, Joining, and Repair of Intermetallic Î³â€TiAlâ€Based Alloys: Recent Progress Enabled by In Situ Synchrotron Xâ€Ray Techniques. Advanced Engineering Materials, 2021, 23, 2000947.	3.5	9
4	An Additively Manufactured Titanium Alloy in the Focus of Metallography. Praktische Metallographie/Practical Metallography, 2021, 58, 4-31.	0.3	14
5	In situ fracture observations of distinct interface types within a fully lamellar intermetallic TiAl alloy. Journal of Materials Research, 2021, 36, 2465-2478.	2.6	13
6	Laser powder bed fusion of an engineering intermetallic TiAl alloy. Materials and Design, 2021, 201, 109506.	7.0	17
7	Designing advanced intermetallic titanium aluminide alloys for additive manufacturing. Intermetallics, 2021, 131, 107109.	3.9	51
8	Local-probe based electrical characterization of a multiphase intermetallic Î³-TiAl based alloy. Journal of Applied Physics, 2021, 129, 205107.	2.5	0
9	An atomistic view on Oxygen, antisites and vacancies in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si165.svg"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math>-TiAl phase. Computational Materials Science, 2021, 197, 110655.	3.0	5
10	Microstructure and mechanical properties of novel TiAl alloys tailored via phase and precipitate morphology. Intermetallics, 2021, 138, 107316.	3.9	21
11	Effects of tungsten alloying and fluorination on the oxidation behavior of intermetallic titanium aluminides for aerospace applications. Intermetallics, 2021, 139, 107270.	3.9	20
12	Selective Laser Melting of a Nearâ€Î± Ti6242S Alloy for Highâ€Performance Automotive Parts. Advanced Engineering Materials, 2021, 23, 2001194.	3.5	15
13	How electron beam melting tailors the Al-sensitive microstructure and mechanical response of a novel process-adapted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si53.svg"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math>-TiAl based alloy. Materials and Design, 2021, 212, 110187.	7.0	22
14	Structural stability and mechanical properties of TiAl+Mo alloys: A comprehensive ab initio study. Acta Materialia, 2021, 221, 117427.	7.9	8
15	On the Formation Mechanism of Banded Microstructures in Electron Beam Melted Tiâ€“48Alâ€“2Crâ€“2Nb and the Design of Heat Treatments as Remedial Action. Advanced Engineering Materials, 2021, 23, 2101199.	3.5	20
16	An Advanced TiAl Alloy for High-Performance Racing Applications. Materials, 2020, 13, 4720.	2.9	35
17	High-temperature phenomena in an advanced intermetallic nano-lamellar Î³-TiAl-based alloy. Part I: Internal friction and atomic relaxation processes. Acta Materialia, 2020, 200, 442-454.	7.9	23
18	Novel intermetallic-reinforced near-Î± Ti alloys manufactured by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 792, 139798.	5.6	10

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19	<i>Ab initio</i> study of chemical disorder as an effective stabilizing mechanism of bcc-based <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>TiAl</mml:mi><mml:mo>(</mml:mo><mml:mo>+</mml:mo><mml:mi) 2020, 4, .	2.4	5
20	Microstructural and Phase Analysis of an Additively Manufactured Intermetallic TiAl Alloy using Metallographic Techniques and High-Energy X-Rays. Praktische Metallographie/Practical Metallography, 2020, 57, 84-95.	0.3	6
21	The creep behavior of a fully lamellar Î³-TiAl based alloy. Intermetallics, 2019, 114, 106611.	3.9	20
22	Electron Beam Melting of a Î²â€Solidifying Intermetallic Titanium Aluminide Alloy. Advanced Engineering Materials, 2019, 21, 1900800.	3.5	27
23	Microstructural Evolution and Mechanical Properties of an Advanced Î³-TiAl Based Alloy Processed by Spark Plasma Sintering. Materials, 2019, 12, 1523.	2.9	19
24	Thermal Expansion and Other Thermodynamic Properties of Î±2-Ti3Al and Î³-TiAl Intermetallic Phases from First Principles Methods. Materials, 2019, 12, 1292.	2.9	12
25	Evidence of an orthorhombic transition phase in a Ti-44Al-3Mo (at.%) alloy using in situ synchrotron diffraction and transmission electron microscopy. Materials Characterization, 2019, 147, 398-405.	4.4	13
26	In situ and atomic-scale investigations of the early stages of Î³ precipitate growth in a supersaturated intermetallic Ti-44Al-7Mo (at.%) solid solution. Acta Materialia, 2019, 164, 110-121.	7.9	28
27	Selected Methods of Quantitative Phase Analysis of an Additively Manufactured TNM Titanium Aluminide Alloy. Praktische Metallographie/Practical Metallography, 2019, 56, 220-229.	0.3	10
28	Metallography of Intermetallic Titanium Aluminides â€“ the (Additive) Manufacturing Makes the Difference. Praktische Metallographie/Practical Metallography, 2019, 56, 567-584.	0.3	10
29	Tailoring microstructure and chemical composition of advanced Î³-TiAl based alloys for improved creep resistance. Intermetallics, 2018, 97, 27-33.	3.9	59
30	Pathways of phase transformation in Î²-phase-stabilized Ïƒ/Î³-TiAl alloys subjected to two-step heat treatments. Scripta Materialia, 2018, 149, 70-74.	5.2	17
31	Advanced Titanium Aluminides - How to Improve the Creep Resistance via Compositional and Microstructural Optimization. Materials Science Forum, 2018, 941, 1484-1489.	0.3	15
32	Lattice and phase strain evolution during tensile loading of an intermetallic, multi-phase Î³-TiAl based alloy. Acta Materialia, 2018, 158, 193-205.	7.9	43
33	Investigation of the Precipitation Behavior of H-Carbides in a TiAl Alloy containing Carbon by means of in- and ex-situ Characterization. Praktische Metallographie/Practical Metallography, 2018, 55, 693-703.	0.3	2
34	Multi-Scale Microstructural Characterization. Praktische Metallographie/Practical Metallography, 2018, 55, 584-602.	0.3	2
35	Aspects of Powder Characterization for Additive Manufacturing. Praktische Metallographie/Practical Metallography, 2018, 55, 620-636.	0.3	15
36	Effect of hot rolling and primary annealing on the microstructure and texture of a Î²-stabilised Î³-TiAl based alloy. Acta Materialia, 2017, 126, 145-153.	7.9	77

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37	Intermetallic Î²â€Solidifying Î³â€TiAl Based Alloys â˜’ From Fundamental Research to Application. Advanced Engineering Materials, 2017, 19, 1600735.	3.5	156
38	Impact of Mo on the Ï‰ o phase in Î² -solidifying TiAl alloys: An experimental and computational approach. Intermetallics, 2017, 85, 26-33.	3.9	21
39	Mechanical behavior and related microstructural aspects of a nano-lamellar TiAl alloy at elevated temperatures. Acta Materialia, 2017, 128, 440-450.	7.9	85
40	Design and control of microstructure and texture by thermomechanical processing of a multi-phase TiAl alloy. Materials and Design, 2017, 131, 286-296.	7.0	28
41	Internal friction and atomic relaxation processes in an intermetallic Mo-rich Ti-44Al-7Mo (Î³+Î²o) model alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 495-502.	5.6	17
42	Phase transformations in a Î²-solidifying Î³-TiAl based alloy during rapid solidification. Intermetallics, 2017, 91, 100-109.	3.9	44
43	Effect of microstructural instability on the creep resistance of an advanced intermetallic Î³-TiAl based alloy. Intermetallics, 2017, 80, 1-9.	3.9	55
44	Impact of Alloying on Stacking Fault Energies in Î³-TiAl. Applied Sciences (Switzerland), 2017, 7, 1193.	2.5	25
45	Advancement of Compositional and Microstructural Design of Intermetallic Î³-TiAl Based Alloys Determined by Atom Probe Tomography. Materials, 2016, 9, 755.	2.9	43
46	In Situ Characterization Techniques Based on Synchrotron Radiation and Neutrons Applied for the Development of an Engineering Intermetallic Titanium Aluminide Alloy. Metals, 2016, 6, 10.	2.3	31
47	Intermetallic titanium aluminides in aerospace applications â€“ processing, microstructure and properties. Materials at High Temperatures, 2016, 33, 560-570.	1.0	187
48	Experimental and theoretical evidence of displacive martensite in an intermetallic Mo-containing Î³-TiAl based alloy. Acta Materialia, 2016, 115, 242-249.	7.9	55
49	Silicon distribution and silicide precipitation during annealing in an advanced multi-phase Î³-TiAl based alloy. Acta Materialia, 2016, 110, 236-245.	7.9	76
50	Preparation Methods for Examining the Ï‰_o-Phase Formation in a Î²-Solidifying TiAl Alloy via Atom Probe Tomography. Praktische Metallographie/Practical Metallography, 2016, 53, 73-85.	0.3	4
51	Carbon distribution in multi-phase Î³-TiAl based alloys and its influence on mechanical properties and phase formation. Acta Materialia, 2015, 94, 205-213.	7.9	106
52	Enhancement of creep properties and microstructural stability of intermetallic Î²-solidifying Î³-TiAl based alloys. Intermetallics, 2015, 63, 19-26.	3.9	75
53	Interplay between effect of Mo and chemical disorder on the stability of Î²/Î²o-TiAl phase. Intermetallics, 2015, 61, 85-90.	3.9	36
54	In-situ High-energy X-ray Diffraction on an Intermetallic Î²-stabilised Î³-TiAl Based Alloy. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2015, 160, 221-225.	1.0	2

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55	Oxidation Protection of Multiphase Mo-Containing Î³-TiAl-Based Alloys under Cyclic Test Conditions. Materials Research Society Symposia Proceedings, 2015, 1760, 205.	0.1	2
56	Characterization of the high temperature deformation behavior of two intermetallic TiAlâ€“Mo alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 648, 208-216.	5.6	38
57	Microstructural evolution and grain refinement in an intermetallic titanium aluminide alloy with a high molybdenum content. International Journal of Materials Research, 2015, 106, 725-731.	0.3	18
58	Grain Growth and Î² to Î± Transformation Behavior of a Î²â€Solidifying TiAl Alloy. Advanced Engineering Materials, 2015, 17, 786-790.	3.5	19
59	In-situ study of the timeâ€“temperature-transformation behaviour of a multi-phase intermetallic Î²-stabilised TiAl alloy. Intermetallics, 2015, 57, 17-24.	3.9	53
60	Intermetallic Titanium Aluminides as Innovative High Temperature Lightweight Structural Materials â€“ How Materialographic Methods Have Contributed to Their Development. Praktische Metallographie/Practical Metallography, 2015, 52, 691-721.	0.3	17
61	In situ small-angle X-ray scattering study of the perovskite-type carbide precipitation behavior in a carbon-containing intermetallic TiAl alloy using synchrotron radiation. Acta Materialia, 2014, 77, 360-369.	7.9	25
62	High-temperature oxidation behavior of multi-phase Mo-containing Î³-TiAl-based alloys. Intermetallics, 2014, 53, 45-55.	3.9	81
63	Microstructures and mechanical properties of a multi-phase Î²-solidifying TiAl alloy densified by spark plasma sintering. Acta Materialia, 2014, 73, 107-115.	7.9	95
64	Atomic relaxation processes in an intermetallic Tiâ€“43Alâ€“4Nbâ€“1Moâ€“0.1B alloy studied by mechanical spectroscopy. Acta Materialia, 2014, 65, 338-350.	7.9	25
65	Microstructural design and mechanical properties of a cast and heat-treated intermetallic multi-phase Î³-TiAl based alloy. Intermetallics, 2014, 44, 128-140.	3.9	329
66	Evolution of the Ï‰o phase in a Î²-stabilized multi-phase TiAl alloy and its effect on hardness. Acta Materialia, 2014, 64, 241-252.	7.9	144
67	Hot-working behavior of an advanced intermetallic multi-phase Î³-TiAl based alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 614, 297-310.	5.6	117
68	Microstructure and Texture Evolution in an Intermetallic Î²â€Stabilized Ti<scp>A</scp>l Alloy During Forging and Subsequent Isothermal Annealing. Advanced Engineering Materials, 2014, 16, 445-451.	3.5	10
69	Effect of carbon addition on solidification behavior, phase evolution and creep properties of an intermetallic Î²-stabilized Î³-TiAl based alloy. Intermetallics, 2014, 46, 173-184.	3.9	139
70	Fracture and R-curve behavior of an intermetallic Î²-stabilized TiAl alloy with different nearly lamellar microstructures. Intermetallics, 2014, 53, 1-9.	3.9	44
71	An in-situ high-energy X-ray diffraction study on the hot-deformation behavior ofÂ a Î²-phase containing TiAl alloy. Intermetallics, 2013, 39, 25-33.	3.9	39
72	Design, Processing, Microstructure, Properties, and Applications of Advanced Intermetallic TiAl Alloys. Advanced Engineering Materials, 2013, 15, 191-215.	3.5	840

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73	Advanced Î²-Solidifying Titanium Aluminides â€“ Development Status and Perspectives. Materials Research Society Symposia Proceedings, 2013, 1516, 3-16.	0.1	9
74	3<scp>D</scp> Characterization of an Intermetallic Î²/Î³â€<scp>T</scp>itanium Aluminide Alloy. Advanced Engineering Materials, 2013, 15, 1125-1128.	3.5	12
75	Optimized Hot-forming of an Intermetallic Multi-phase Î³-TiAl Based Alloy. Materials Research Society Symposia Proceedings, 2012, 1516, 29-34.	0.1	7
76	Microstructure development and hardness of a powder metallurgical multi phase Î³-TiAl based alloy. Intermetallics, 2012, 22, 231-240.	3.9	134
77	Thermodynamic Calculations of Phase Equilibria and Phase Fractions of a Î²-Solidifying TiAl Alloy using the CALPHAD Approach. Materials Research Society Symposia Proceedings, 2012, 1516, 59-64.	0.1	10
78	In Situ Study of Î³â€TiAl Lamellae Formation in Supersaturated Î±₂â€Ti₃Al Grains. Advanced Engineering Materials, 2012, 14, 299-303.	3.5	12
79	In Situ Synchrotron Study of B19 Phase Formation in an Intermetallic Î³â€TiAl Alloy. Advanced Engineering Materials, 2012, 14, 445-448.	3.5	18
80	Influence of Heat Treatments on the Microstructure of a Multi-Phase Titanium Aluminide Alloy. Praktische Metallographie/Practical Metallography, 2012, 49, 124-137.	0.3	30
81	On Phase Equilibria and Phase Transformations in Î²/Î³-TiAl Alloys â€“ A Short Review. BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik, 2011, 156, 438-442.	1.0	9
82	In Situ Diffraction Experiments for the Investigation of Phase Fractions and Ordering Temperatures in Tiâ€44 at% Alâ€(3â€7) at% Mo Alloys. Advanced Engineering Materials, 2011, 13, 306-311.	3.5	34
83	The Contribution of Highâ€Energy Xâ€Rays and Neutrons to Characterization and Development of Intermetallic Titanium Aluminides. Advanced Engineering Materials, 2011, 13, 685-699.	3.5	34
84	Phase transition and ordering behavior of ternary Tiâ€“Alâ€“Mo alloys using in-situ neutron diffraction. International Journal of Materials Research, 2011, 102, 697-702.	0.3	37
85	Phase Equilibria and Phase Transformations in Molybdenum-Containing TiAl Alloys. Materials Research Society Symposia Proceedings, 2011, 1295, 113.	0.1	18
86	Intermetallische Î³-Titanaluminid-Basislegierungen aus metallographischer Sicht â€“ eine Fortsetzung. Praktische Metallographie/Practical Metallography, 2011, 48, 64-100.	0.3	11
87	Friction Welding of Intermetallic Titanium Aluminides: Microstructural Evolution and Mechanical Properties. Praktische Metallographie/Practical Metallography, 2011, 48, 572-581.	0.3	1
88	The Characterisation of a Powder Metallurgically Manufactured TNMâ„¢ Titanium Aluminide Alloy Using Complimentary Quantitative Methods. Praktische Metallographie/Practical Metallography, 2011, 48, 594-604.	0.3	40
89	Phase Transition and Ordering Temperatures of TiAl-Mo Alloys Investigated by <i>In Situ</i> Diffraction Experiments. Materials Science Forum, 2010, 654-656, 456-459.	0.3	10
90	Correlation between heat treatment, microstructure and mechanical properties of a hot-work tool steel. International Journal of Materials Research, 2009, 100, 86-91.	0.3	13

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91	The Use of <i>In Situ</i> Characterization Techniques for the Development of Intermetallic Titanium Aluminides. Materials Science Forum, 0, 783-786, 2097-2102.	0.3	6
92	Constitutive Analysis and Microstructure Evolution of the High-Temperature Deformation Behavior of an Advanced Intermetallic Multi-Phase Î³-TiAl-Based Alloy. Advanced Materials Research, 0, 922, 807-812.	0.3	7
93	<i>In situ</i> fracture observations of distinct interface types within a fully lamellar intermetallic TiAl alloy. Journal of Materials Research, 0, , 1-14.	2.6	1