Thomas Dorin

List of Publications by Year
in descending order

49 papers	1,634 citations	331259 21 h-index	301761 39 g-index
50 all docs	50 docs citations	50 times ranked	911 citing authors

#	Article	IF	Citations
1	The influence of precipitation on plastic deformation of Alâ€“Cuâ€“Li alloys. Acta Materialia, 2013, 61, 4010-4021.	3.8	216
2	Quantification and modelling of the microstructure/strength relationship by tailoring the morphological parameters of the T1 phase in an Alâ€“Cuâ€“Li alloy. Acta Materialia, 2014, 75, 134-146.	3.8	197
3	Strengthening mechanisms of T1 precipitates and their influence on the plasticity of an Alâ€“Cuâ€“Li alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 605, 119-126.	2.6	134
4	Effect of Sc and Zr additions on the microstructure/strength of Al-Cu binary alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 58-64.	2.6	106
5	Quantitative description of the T₁formation kinetics in an Alâ€“Cuâ€“Li alloy using differential scanning calorimetry, small-angle X-ray scattering and transmission electron microscopy. Philosophical Magazine, 2014, 94, 1012-1030.	0.7	102
6	Simultaneous improvement in corrosion resistance and hardness of a model 2xxx series Al-Cu alloy with the microstructural variation caused by Sc and Zr additions. Corrosion Science, 2019, 158, 108095.	3.0	65
7	Coupled segregation mechanisms of Sc, Zr and Mn at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msup><mml:mrow><mml:mi>Î¸</mml:mi></mml:mrow><mml:mo>â€²</mml:mo></mml:msup></mml:math> interfaces enhances the strength and thermal stability of Al-Cu alloys. Acta Materialia, 2021, 206, 116634.	3.8	62
8	Influence of cooling rate on the microstructure and corrosion behavior of Alâ€“Fe alloys. Corrosion Science, 2015, 100, 396-403.	3.0	61
9	Simultaneous improvement in the strength and corrosion resistance of Al via high-energy ball milling and Cr alloying. Materials and Design, 2015, 84, 270-276.	3.3	48
10	Precipitation and clustering in a Ti-Mo steel investigated using atom probe tomography and small-angle neutron scattering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 718, 74-86.	2.6	43
11	Size distribution and volume fraction of T1 phase precipitates from TEM images: Direct measurements and related correction. Micron, 2015, 78, 19-27.	1.1	40
12	Effect of dislocations, Al3(Sc,Zr) distribution and ageing temperature on Î¸â€² precipitation in Al-Cu-(Sc)-(Zr) alloys. Materialia, 2020, 9, 100610.	1.3	39
13	Micro-segregation and precipitates in as-solidified Al-Sc-Zr-(Mg)-(Si)-(Cu) alloys. Materials Characterization, 2019, 154, 353-362.	1.9	36
14	Effect of Al3(Sc,Zr) dispersoids on the hot deformation behaviour of 6xxx-series alloys: A physically based constitutive model. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139873.	2.6	34
15	Aluminium Scandium Alloys. , 2018, , 439-494.		32
16	Atom probe tomography data analysis procedure for precipitate and cluster identification in a Ti-Mo steel. Data in Brief, 2018, 18, 968-982.	0.5	31
17	The impact of L12 dispersoids and strain rate on the Portevin-Le-Chatelier effect and mechanical properties of Alâ€“Mg alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 811, 141040.	2.6	31
18	Quantitative examination of carbide and sulphide precipitates in chemically complex steels processed by direct strip casting. Materials Characterization, 2016, 112, 259-268.	1.9	29

#	Article	IF	Citations
19	Precipitation sequence in Alâ€“Mgâ€“Siâ€“Scâ€“Zr alloys during isochronal aging. Materialia, 2019, 8, 100437.	1.3	29
20	Effect of coiling treatment on microstructural development and precipitate strengthening of a strip cast steel. Acta Materialia, 2016, 115, 167-177.	3.8	27
21	Aluminium Lithium Alloys. , 2018, , 387-438.		27
22	Tailored precipitation route for the effective utilisation of Sc and Zr in an Al-Mg-Si alloy. Materialia, 2020, 10, 100656.	1.3	25
23	Stability and stoichiometry of L12 Al3(Sc,Zr) dispersoids in Al-(Si)-Sc-Zr alloys. Acta Materialia, 2021, 216, 117117.	3.8	24
24	Impact of grain microstructure on the heterogeneity of precipitation strengthening in an Alâ€“Liâ€“Cu alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 627, 51-55.	2.6	23
25	Understanding the formation of (Al,Si)3Sc and V-phase (AlSc2Si2) in Al-Si-Sc alloys via ex situ heat treatments and in situ transmission electron microscopy studies. Journal of Alloys and Compounds, 2021, 861, 158511.	2.8	21
26	New Bayesian-Optimization-Based Design of High-Strength 7xxx-Series Alloys from Recycled Aluminum. Jom, 2018, 70, 2704-2709.	0.9	16
27	Isotropy of precipitate distribution in pre-stretched Al-Cu-(Sc)-(Zr) alloys. Scripta Materialia, 2022, 210, 114452.	2.6	15
28	Effect of Cooling Rate on Phase Transformations in a High-Strength Low-Alloy Steel Studied from the Liquid Phase. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5561-5571.	1.1	14
29	Effect of molybdenum on phase transformation and microstructural evolution of strip cast steels containing niobium. Journal of Materials Science, 2019, 54, 1769-1784.	1.7	12
30	The effect of heat treatments on mechanical properties of M789 steel fabricated by laser powder bed fusion. Journal of Alloys and Compounds, 2021, 885, 161033.	2.8	12
31	Novel Al-Cu-Mn-Zr-Sc Compositions Exhibiting Increased Mechanical Performance after a High-Temperature Thermal Exposure. Journal of Materials Engineering and Performance, 2020, 29, 5672-5684.	1.2	11
32	Complementarity of Atom Probe, Small Angle Scattering and Differential Scanning Calorimetry for the Study of Precipitation in Aluminium Alloys. Materials Science Forum, 0, 794-796, 926-932.	0.3	10
33	The effect of molybdenum on interphase precipitation at 700Â°C in a strip-cast low-carbon niobium steel. Materials Characterization, 2020, 166, 110444.	1.9	10
34	The effect of molybdenum on clustering and precipitation behaviour of strip-cast steels containing niobium. Materialia, 2019, 8, 100462.	1.3	9
35	Superior low temperature toughness in a newly designed low Mn and low Ni high strength steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 825, 141899.	2.6	8
36	Complex precipitation phenomena in strip cast steels with high sulfur and copper contents. Journal of Applied Crystallography, 2016, 49, 1777-1785.	1.9	8

#	Article	IF	Citations
37	The Effect of Nb Micro-alloying on the Bainitic Phase Transformation Under Strip Casting Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1021-1025.	1.1	5
38	Impact of Scandium and Zirconium on extrudability, microstructure and hardness of a binary Al-Cu alloy. Materials Today: Proceedings, 2019, 10, 242-247.	0.9	5
39	Developing an Optimized Homogenization Process for Sc and Zr Containing Al-Mg-Si Alloys. Minerals, Metals and Materials Series, 2019, , 1445-1453.	0.3	4
40	Understanding the Co-precipitation Mechanisms of Al3(Sc, Zr) with Strengthening Phases in Alâ€“Cuâ€“Li Model Alloys. Minerals, Metals and Materials Series, 2018, , 233-239.	0.3	2
41	The Effect of Scandium and Zirconium on the Microstructure, Mechanical Properties and Formability of a Model Alâ€“Cu Alloy. Minerals, Metals and Materials Series, 2018, , 1595-1599.	0.3	2
42	The Effect of Molybdenum on Precipitation Behaviour in Austenite of Strip-Cast Steels Containing Niobium. Metals, 2020, 10, 1330.	1.0	2
43	Influence of Coiling on Microstructural Evolution and Mechanical Properties of Strip-Cast Low-Carbon Low-Niobium Steel. Materials Science Forum, 2016, 879, 1182-1187.	0.3	1
44	Influence of the Al3(Sc,Zr) Dispersoids and the Stretching on the Natural Ageing Behavior of a Binary Al-4Âwt%Cu Alloys. Minerals, Metals and Materials Series, 2018, , 1601-1607.	0.3	1
45	The microstructure of high manganese TWIP steels produced via simulated direct strip casting. Materials Science and Technology, 2022, 38, 30-38.	0.8	1
46	New Research Techniques in Aluminium Alloy Development. , 2018, , 1-46.		0
47	The Effect of Molybdenum on Clustering and Precipitation Behaviour of Strip-Cast Steels Containing Niobium. SSRN Electronic Journal, 2019, , .	0.4	0
48	Heat Treatments for Precipitation of Scandium-Containing Dispersoids in an Si-Containing Aluminum Alloys. Minerals, Metals and Materials Series, 2019, , 1463-1467.	0.3	0
49	Optimised Composition and Process Design to Develop Sc-Enhanced Wrought Al-Si Alloys. Minerals, Metals and Materials Series, 2019, , 1431-1438.	0.3	0