Juergen R Hirsch

List of Publications by Citations

75 papers	3,683 citations	20 h-index	60 g-index
78 ext. papers	4,086 ext. citations	2 avg, IF	6.05 L-index

#	Paper	IF	Citations
75	Superior light metals by texture engineering: Optimized aluminum and magnesium alloys for automotive applications. *Acta Materialia*, **2013**, 61, 818-843	8.4	716
74	Overview no. 76. *Acta Metallurgica*, **1988**, 36, 2863-2882		518
73	Recent development in aluminium for automotive applications. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 1995-2002	3.3	372
72	Overview no. 76. *Acta Metallurgica*, **1988**, 36, 2883-2904		291
71	Texture control by thermomechanical processing of AA6xxx Al–Mg–Si sheet alloys for automotive applications—a review. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 336, 249-262	5.3	285
70	Overview No. 76. *Acta Metallurgica*, **1988**, 36, 2905-2927		273
69	Aluminium in Innovative Light-Weight Car Design. *Materials Transactions*, **2011**, 52, 818-824	1.3	272
68	Aluminium Alloys for Automotive Application. *Materials Science Forum*, **1997**, 242, 33-50	0.4	95
67	Texture development in Al 1.8wt% Cu depending on the precipitation state—I. Rolling textures. *Acta Metallurgica*, **1989**, 37, 2743-2753		83
66	Rolling and recrystallization textures in directionally solidified aluminium. *Acta Metallurgica*, **1987**, 35, 427-438		77
65	The application of quantitative texture analysis for investigating continuous and discontinuous recrystallization processes of Al-0.01 Fe. *Acta Metallurgica*, **1985**, 33, 1927-1938		64
64	Through-process simulation of texture and properties during the thermomechanical processing of aluminium sheets. *Acta Materialia*, **2007**, 55, 5449-5463	8.4	58
63	Polycrystal-plasticity simulation of six and eight ears in deep-drawn aluminum cups. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 452-453, 640-651	5.3	45
62	On the role of texture development in the forming limits of sheet metals. *International Journal of Mechanical Sciences*, **1996**, 38, 1117-1126	5.5	45
61	Texture development in Al--1.8 wt% Cu depending on the precipitation state-II. Recrystallization textures. *Acta Metallurgica Et Materialia*, **1995**, 43, 121-138		39
60	Recrystallization Textures and Plastic Anisotropy in Al-Mg-Si Sheet Alloys. *Materials Science Forum*, **1996**, 217-222, 479-486	0.4	31
59	Correlation of deformation texture and microstructure. *Materials Science and Technology*, **1990**, 6, 1048-1057		28

58	The Effect of Textures on Shape Memory Behaviour. *Materials Science Forum*, **1991**, 56-58, 487-492	0.4	26
57	Effect of pretreatment and texture on recovery and recrystallisation in Al□□5Mg□□7Mn alloy. *Materials Science and Technology*, **1994**, 10, 771-782	1.5	24
56	Deformation processes in hot worked copper and □brass. *Acta Metallurgica*, **1986**, 34, 2247-2257		23
55	Control of recrystallisation texture and texture-related properties in industrial production of aluminium sheet. *International Journal of Materials Research*, **2009**, 100, 564-575	0.5	20
54	Recrystallization Modeling of AA8XXX Alloys with Cellular Automata Considering Recovering Kinetics. *Advanced Engineering Materials*, **2010**, 12, 131-140	3.5	17
53	Bendability enhancement of an age-hardenable aluminum alloy: Part I □relationship between microstructure, plastic deformation and fracture. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 753, 179-191	5.3	16
52	A Statistical Model for Precipitation - Applications to Commercial Al-Mn-Mg-Fe-Si Alloys. *Materials Science Forum*, **2002**, 396-402, 637-642	0.4	16
51	Superplasticity-dislocation creep interactions in a coarse grained Al-Cu-Zr alloy. *Journal of Materials Science*, **1991**, 26, 5309-5317	4.3	15
50	Bendability enhancement of an age-hardenable aluminum alloy: Part II □multiscale numerical modeling of shear banding and fracture. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 754, 161-177	5.3	14
49	The kinetics of clustering in Al□Mg□Si alloys studied by Monte Carlo simulation. *International Journal of Materials Research*, **2012**, 103, 980-986	0.5	14
48	Texture Evolution and Earing in Aluminium Can Sheet. *Materials Science Forum*, **2005**, 495-497, 1565-1572	0.4	13
47	Development of New Fast Algorithms for Calculation of Texture Evolution during Hot Continuous Rolling of Al□e Alloys. *Steel Research International*, **2017**, 88, 1700053	1.6	11
46	Through Process Modelling. *Materials Science Forum*, **2006**, 519-521, 15-24	0.4	11
45	Earing and Texture Evolution in Al Can-Sheet. *Materials Science Forum*, **1996**, 217-222, 641-646	0.4	10
44	Deformation banding in a precipitation hardened aluminum alloy during simple shear deformation. *Scripta Materialia*, **2019**, 162, 300-305	5.6	10
43	Influence of Local Inhomogeneity of Thermomechanical Treatment Conditions on Microstructure Evolution in Aluminum Alloys. *Journal of Materials Engineering and Performance*, **2018**, 27, 6780-6799	1.6	10
42	Formation of Recrystallization Textures and Plastic Anisotropy in Al-Mg-Si Alloys. *Materials Science Forum*, **1994**, 157-162, 939-944	0.4	9
41	Textures in Industrial Processes and Products. *Materials Science Forum*, **2011**, 702-703, 18-25	0.4	8

40	Aluminium sheet fabrication and processing **2011**, 719-746		8
39	Description and Presentation Methods for Textures. *Textures and Microstructures*, **1988**, 8, 131-151		8
38	Practical Application of Modeling in the Industrial Sheet Production. *Materials Science Forum*, **2000**, 331-337, 421-430	0.4	7
37	Corrosion of Materials after Advanced Surface Processing, Joining, and Welding. *International Journal of Corrosion*, **2018**, 2018, 1-3	2	7
36	Study of recrystallization kinetics in AA5182 aluminium alloy after deformation of the as-cast structure. *Materials Research Express*, **2019**, 6, 066552	1.7	6
35	Neural-network analysis of socio-medical data to identify predictors of undiagnosed hepatitis C virus infections in Germany (DETECT). *Journal of Translational Medicine*, **2019**, 17, 94	8.5	6
34	Specific Features of Microstructural Evolution During Hot Rolling of the As-Cast Magnesium-Rich Aluminum Alloys with Added Transition Metal Elements. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 5782-5799	2.3	6
33	History of ICME in the European Aluminium Industry **2011**, 203-210		6
32	Advances in Industrial Aluminium Research and Development. *Materials Science Forum*, **2002**, 396-402, 1721-1730	0.4	5
31	Influence of the Rolling Temperature on the Texture Gradient in an Al-Mg-Si Alloy. *Materials Science Forum*, **1994**, 157-162, 673-678	0.4	5
30	Evaluation of mechanical properties for fundamental studies in structural superplasticity. *Journal of Materials Science*, **1991**, 26, 5301-5308	4.3	5
29	Impact of Zener-Hollomon parameter on substructure and texture evolution during thermomechanical treatment of iron-containing wrought aluminium alloys. *Transactions of Nonferrous Metals Society of China*, **2019**, 29, 893-906	3.3	4
28	Modelling the Combined Effect of Room Temperature Storage and Cold Deformation on the Age-Hardening Behaviour of Al-Mg-Si Alloys-Part 1. *Materials Science Forum*, **2014**, 794-796, 670-675	0.4	4
27	Thermomechanical Control in Aluminium Sheet Production. *Materials Science Forum*, **2003**, 426-432, 185-194	0.4	4
26	Texture Evolution during Deep Drawing in Aluminium Sheet. *Materials Science Forum*, **1994**, 157-162, 1979-1984	0.4	4
25	Investigation of the Intermetallic Compounds Fragmentation Impact on the Formation of Texture during the as Cast Structure Thermomechanical Treatment of Aluminum Alloys. *Metals*, **2021**, 11, 507	2.3	4
24	Influence of Mg Content on Texture Development during Hot Plain-Strain Deformation of Aluminum Alloys. *Metals*, **2021**, 11, 865	2.3	4
23	Study of the recrystallization behaviour of the aluminium 1565ch alloy during hot rolling of the as cast structures. *Materials Research Express*, **2019**, 6, 076524	1.7	3

22	Modelling the Combined Effect of Room Temperature Storage and Cold Deformation on the Age-Hardening Behaviour of Al-Mg-Si Alloys-Part 2. *Materials Science Forum*, **2014**, 794-796, 722-727	0.4	3
21	Hot Formability and Texture Formation in Al Alloys. *Materials Science Forum*, **2008**, 604-605, 259-266	0.4	3
20	Property Control in Production of Aluminum Sheet by Use of Simulation **2005**, 705-725		3
19	Rolling and Recrystallization Textures in Copper-Germanium Alloys. *International Journal of Materials Research*, **1984**, 75, 113-123	0.5	3
18	Development of the new fast approach for calculation of texture evolution during hot deformation of aluminum alloys. *Procedia Manufacturing*, **2019**, 37, 492-499	1.5	3
17	Effect of Dispersoids on Long-Term Stable Electrical Aluminium Connections. *Materials Science Forum*, **2016**, 877, 409-415	0.4	2
16	A Texture Component Crystal Plasticity Finite Element Method for Scalable Large Strain Anisotropy Simulations. *Materials Science Forum*, **2002**, 408-412, 257-262	0.4	2
15	On the Effect of Grain Orientation on Deformation Texture. *Materials Science Forum*, **1994**, 157-162, 1777-1782	0.4	2
14	Koordinatenmesstechnik als Schlüsseltechnologie der Fertigungsmesstechnik Coordinate Metrology as a Key Technology in Production Measurement. *TM Technisches Messen*, **2009**, 76, 73-82	0.7	1
13	AluMATTER, a New Interactive e-Learning Tool. *Materials Science Forum*, **2006**, 519-521, 1209-1214	0.4	1
12	The Casting Rate Impact on the Microstructure in AlMgSi Alloy with Silicon Excess and Small Zr, Sc Additives. *Metals*, **2021**, 11, 2056	2.3	1
11	Influence of the Small Sc and Zr Additions on the As-Cast Microstructure of AlMgSi Alloys with Excess Silicon. *Metals*, **2021**, 11, 1797	2.3	1
10	Simulation of Microstructure and Texture Evolution in Aluminum Sheet **2009**, 510-521		1
9	The Effect of Cu and Cr on Clustering and Precipitation in Al-Mg-Si Alloys **2012**, 1125-1130		1
8	Specific of the Recrystallization Driving Force Calculation on the early Stages of Thermomechanical Treatment of Aluminum Alloys. *Materials Science Forum*,1037, 273-280	0.4	0
7	Texture Development in Aluminum Alloys with High Magnesium Content. *Metals*, **2022**, 12, 723	2.3	0
6	AluMATTER, a New Interactive E-Learning Tool. *Materials Science Forum*, **2005**, 495-497, 615-622	0.4	
5	Application of nondestructive techniques for the prediction of elastic anistropy of a textured polycrystalline material. *Journal of Nondestructive Evaluation*, **1993**, 12, 79-95	2.1	

4	Crystallography-based prediction of plastic anisotropy of polycrystalline materials. *Journal of Nondestructive Evaluation*, **1993**, 12, 97-107	2.1
3	Anisotropie bei Federbändern aus Kupferlegierungen. *Materialwissenschaft Und Werkstofftechnik*, **1981**, 12, 256-262	0.9
2	Advances in Integrated Computational Materials Engineering ICME **2012**, 311-318	
1	Crystallographic Textures and a Magnifying Glass to Investigate Materials387-402	