

# Dietmar Letzig

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98  
papers

2,986  
citations

23  
h-index

54  
g-index

101  
ext. papers

3,406  
ext. citations

2.8  
avg, IF

5.08  
L-index

#	Paper	IF	Citations
98	Influence of Third Alloying Element on Dislocation Slip and Twinning Activities in MgNd-Based Alloys. <i>Minerals, Metals and Materials Series</i> , <b>2022</b> , 97-103	0.3	
97	Effect of Al Content on Texture Evolution and Recrystallization Behavior of Non-Flammable Magnesium Sheet Alloys. <i>Metals</i> , <b>2021</b> , 11, 468	2.3	1
96	Superplasticity at Intermediate Temperatures of ZK60 Magnesium Alloy Processed by Indirect Extrusion. <i>Metals</i> , <b>2021</b> , 11, 606	2.3	0
95	Alloying effect of silver in magnesium on the development of microstructure and mechanical properties by indirect extrusion. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 9, 112-122	8.8	5
94	Plastic instability and texture modification in extruded Mg-Mn-Nd alloy. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 10, 146-146	8.8	3
93	Corrosion behavior of Mg wires for ureteral stent in artificial urine solution. <i>Corrosion Science</i> , <b>2021</b> , 189, 109567	6.8	6
92	Biocompatibility and electrochemical evaluation of ZrO <sub>2</sub> thin films deposited by reactive magnetron sputtering on MgZnCa alloy. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 9, 2019-2019	8.8	1
91	Effect of Ca and Nd on the microstructural development during dynamic and static recrystallization of indirectly extruded MgZn based alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 793, 139527	5.3	7
90	Unexpected cytotoxicity of TiO <sub>2</sub> -coated magnesium alloys. <i>Materials Letters</i> , <b>2020</b> , 276, 128236	3.3	2
89	Emerging Hot Topics and Research Questions in Wrought Magnesium Alloy Development. <i>Jom</i> , <b>2020</b> , 72, 2561-2567	2.1	5
88	Alloying and Processing Effects on the Microstructure, Mechanical Properties, and Degradation Behavior of Extruded Magnesium Alloys Containing Calcium, Cerium, or Silver. <i>Materials</i> , <b>2020</b> , 13,	3.5	9
87	Cold Formability of Extruded Magnesium Bands. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 329-334	0.3	
86	Recrystallization Effects on the Forming Behaviour of Magnesium Alloy Sheets with Varied Calcium Concentration. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 87-94	0.3	
85	Excellent age hardenability with the controllable microstructure of AXW100 magnesium sheet alloy. <i>Scientific Reports</i> , <b>2020</b> , 10, 22413	4.9	3
84	On the Direct Extrusion of Magnesium Wires from Mg-Al-Zn Series Alloys. <i>Metals</i> , <b>2020</b> , 10, 1208	2.3	9
83	Enabling intelligent Mg-sheet processing utilizing efficient machine-learning algorithm. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2020</b> , 794, 139846	5.3	6
82	Mechanical properties and degradation behavior of binary magnesium-silver alloy sheets. <i>Journal of Physics and Chemistry of Solids</i> , <b>2019</b> , 133, 142-150	3.9	10

81	Modification of Microstructure and Texture in Highly Non-Flammable Mg-Al-Zn-Y-Ca Alloy Sheets by Controlled Thermomechanical Processes. <i>Metals</i> , <b>2019</b> , 9, 181	2.3	8
80	Role of deformation mechanisms and grain growth in microstructure evolution during recrystallization of Mg-Nd based alloys. <i>Scripta Materialia</i> , <b>2019</b> , 166, 53-57	5.6	29
79	Magnesium Process and Alloy Development for Applications in the Automotive Industry. <i>Minerals, Metals and Materials Series</i> , <b>2019</b> , 15-20	0.3	7
78	In vitro evaluation of the ZX11 magnesium alloy as potential bone plate: Degradability and mechanical integrity. <i>Acta Biomaterialia</i> , <b>2019</b> , 97, 608-622	10.8	43
77	Influence of Nd or Ca addition on the dislocation activity and texture changes of Mg <sub>92</sub> Zn alloy sheets under uniaxial tensile loading. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 761, 138053	5.3	18
76	Processing Effects on the Formability of Extruded Flat Products of Magnesium Alloys. <i>Frontiers in Materials</i> , <b>2019</b> , 6,	4	4
75	Comparison of the Mechanical Properties and Forming Behavior of Two Texture-Weakened Mg-Sheet Alloys Produced by Twin Roll Casting. <i>Frontiers in Materials</i> , <b>2019</b> , 6,	4	4
74	Effect of Thermomechanical Treatment on Subsequent Deformation Behavior in a Binary Z1 Magnesium Alloy Studied by the Acoustic Emission Technique. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1800915	3.5	1
73	Deformation and Recrystallization Mechanisms and Their Influence on the Microstructure Development of Rare Earth Containing Magnesium Sheets. <i>Minerals, Metals and Materials Series</i> , <b>2018</b> , 209-216	0.3	2
72	Mg Alloys: Challenges and Achievements in Controlling Performance, and Future Application Perspectives. <i>Minerals, Metals and Materials Series</i> , <b>2018</b> , 3-14	0.3	6
71	Mobility of pinned twin boundaries during mechanical loading of extruded binary Mg-1Zn alloy. <i>Materials Characterization</i> , <b>2018</b> , 139, 81-88	3.9	13
70	Processing Effects on the Formability of Magnesium Alloy Sheets. <i>Metals</i> , <b>2018</b> , 8, 147	2.3	16
69	Development of Magnesium Sheets. <i>Minerals, Metals and Materials Series</i> , <b>2018</b> , 355-360	0.3	2
68	Microstructure and Texture of MX20 after Conventional Rolling and Rolling from Twin Rolled Cast Strip. <i>Materials Science Forum</i> , <b>2018</b> , 941, 1418-1423	0.4	
67	Experimental study on incremental sheet forming of magnesium alloy AZ31 with hot air heating. <i>Procedia Manufacturing</i> , <b>2018</b> , 15, 1192-1199	1.5	11
66	Microstructure Development and Related Mechanical Behavior of the ZE200 Mg Alloy Processed by Differential Speed Rolling and Equal Channel Angular Pressing. <i>Materials Science Forum</i> , <b>2018</b> , 941, 931-936	0.4	1
65	Static recrystallization behaviour of cold rolled Mg-Zn-Y alloy and role of solute segregation in microstructure evolution. <i>Scripta Materialia</i> , <b>2017</b> , 136, 41-45	5.6	37
64	On the Age Hardening Response of Aluminum Containing Magnesium Sheets with Zinc or Manganese (AZ- and AM Series Alloys). <i>Minerals, Metals and Materials Series</i> , <b>2017</b> , 113-121	0.3	

63	Modeling of the work hardening in magnesium alloy sheets. <i>International Journal of Plasticity</i> , <b>2016</b> , 76, 166-185	7.6	34
62	Enhanced mechanical behavior and reduced mechanical anisotropy of AZ31 Mg alloy sheet processed by ECAP. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 650, 523-529	5.3	42
61	Microstructure and Mechanical Properties of Ca Containing AZX310 Alloy Sheets Produced via Twin Roll Casting Technology <b>2016</b> , 383-387		
60	Formability of Extruded Magnesium Alloy Sheets With Different Textures <b>2016</b> , 251-256		1
59	Effect of processing route on texture and cold formability of AZ31 Mg alloy sheets processed by ECAP. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 669, 159-170	5.3	61
58	Microstructure and Mechanical Properties of Ca Containing AZX310 Alloy Sheets Produced via Twin Roll Casting Technology <b>2016</b> , 383-387		2
57	Formability of Extruded Magnesium Alloy Sheets with Different Textures <b>2016</b> , 251-256		
56	In-Situ EBSD Observations of Recrystallization and Texture Evolution in Rolled Mg-2Zn-xCe (wt.%) <b>2016</b> , 237-237		
55	Formability of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture <b>2016</b> , 357-362		
54	In-Situ EBSD Observations of Recrystallization and Texture Evolution in Rolled Mg-2Zn-xCe (wt.%) <b>2016</b> , 235-237		
53	Substitution of Rare Earths in Magnesium Alloys. <i>Materials Science Forum</i> , <b>2016</b> , 854, 51-56	0.4	1
52	Calcium and zirconium as texture modifiers during rolling and annealing of magnesium-zinc alloys. <i>Materials Characterization</i> , <b>2015</b> , 101, 144-152	3.9	67
51	On the Development of Mg Sheets with Improved Formability by Applying Additional Shear Strain during Processing. <i>Materials Science Forum</i> , <b>2015</b> , 828-829, 395-400	0.4	
50	Challenges and Solutions in the Development of Magnesium Sheet for Sustainable Vehicle Concepts. <i>Materials Science Forum</i> , <b>2015</b> , 828-829, 15-22	0.4	2
49	Deformation Behavior of Rolled Magnesium Slabs and Twin Roll Cast Strips Studied by the Acoustic Emission Technique <b>2015</b> , 273-276		
48	Microstructure Evolution of Different Magnesium Alloys During Twin Roll Casting <b>2015</b> , 465-470		1
47	The Microstructure and Texture Development During Twin Roll Casting and Rolling of Magnesium Alloy AZ31 <b>2015</b> , 471-476		1
46	Microstructure Evolution of Different Magnesium Alloys during Twin Roll Casting <b>2015</b> , 465-470		

45	Deformation Behavior of Rolled Magnesium Slabs and Twin Roll Cast Strips Studied by the Acoustic Emission Technique <b>2015</b> , 273-276		
44	The Microstructure and Texture Development during Twin Roll Casting and Rolling of Magnesium Alloy AZ31 <b>2015</b> , 471-476		
43	The Effect of Nd on the Tension and Compression Deformation Behavior of Extruded Mg-1Mn (wt pct) at Temperatures Between 298 K and 523 K (25 °C and 250 °C). <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2014</b> , 45, 3254-3274	2.3	15
42	A study of mechanical anisotropy of Mg-Zn-Rare earth alloy sheet. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 588, 628-632	5.7	24
41	Twin Roll Casting and Rolling of New Mg-Wrought Alloys for Body Protective Safety Equipment. <i>Materials Science Forum</i> , <b>2014</b> , 783-786, 534-536	0.4	
40	Deformation Behavior of ZE10 Magnesium Alloy Sheet <b>2014</b> , 227-231		
39	Acoustic Emission Analysis of Plane Strain-Compressed Mg Single Crystals <b>2014</b> , 101-104		
38	Der Einfluss des Gießwalzprozesses auf die Eigenschaften des Dünbands. <i>Lightweight Design</i> , <b>2013</b> , 6, 52-57	0.1	
37	Acoustic Emission Study of Mg-Mn Extruded Alloys with Prospective Mechanical Properties. <i>Materials Science Forum</i> , <b>2013</b> , 765, 537-542	0.4	
36	Influence of Process Parameters on Twin Roll Cast Strip of the Alloy AZ31. <i>Materials Science Forum</i> , <b>2013</b> , 765, 205-209	0.4	20
35	Role of Solute in the Texture Modification During Hot Deformation of Mg-Rare Earth Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 1347-1362	2.3	254
34	Effects of Solute and Second-Phase Particles on the Texture of Nd-Containing Mg Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 1363-1375	2.3	82
33	A constitutive law for the thermo-mechanical modelling of magnesium alloy extrusion. <i>International Journal of Material Forming</i> , <b>2012</b> , 5, 325-339	2	7
32	Microstructural Evolution during Recrystallization of Magnesium Alloys. <i>Materials Science Forum</i> , <b>2012</b> , 706-709, 1291-1296	0.4	2
31	Low Temperature Superplasticity of Hydrostatically Extruded Mg-Al-Zn Alloys. <i>Materials Science Forum</i> , <b>2012</b> , 735, 307-315	0.4	1
30	Formability of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture <b>2011</b> , 373-378		2
29	Grain size effects on deformation twinning in an extruded magnesium alloy tested in compression. <i>Scripta Materialia</i> , <b>2011</b> , 65, 424-427	5.6	100
28	Effects of Ceramic Inoculants and Intermetallic Phases on Hot Rolled AZ Magnesium Wrought Alloys. <i>Materials Science Forum</i> , <b>2011</b> , 690, 306-310	0.4	1

27	Effects of Processing, Texture and Temperature on the Formability of AZ31 and ZE10 Sheets. <i>Materials Science Forum</i> , <b>2011</b> , 690, 298-301	0.4	5
26	Influence of Crystallographic Texture on the High Cycle Fatigue of Extruded AZ31 Magnesium Alloy. <i>Materials Science Forum</i> , <b>2011</b> , 690, 319-322	0.4	1
25	Influence of Rare Earth Addition on Texture Development during Static Recrystallization and Mechanical Behaviour of Magnesium Alloy Sheets. <i>Materials Science Forum</i> , <b>2011</b> , 702-703, 651-654	0.4	
24	Achievements in Deep Drawing of Magnesium Alloy Sheets. <i>Materials Science Forum</i> , <b>2011</b> , 690, 302-305	0.4	1
23	Influence of the Processing of Magnesium Alloys AZ31 and ZE10 on the Sheet Formability at Elevated Temperature. <i>Key Engineering Materials</i> , <b>2011</b> , 473, 335-342	0.4	25
22	Formability of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture <b>2011</b> , 373-378		4
21	Improvement of Magnesium Sheet Formability by Alloying Addition of Rare Earth Elements. <i>Materials Science Forum</i> , <b>2010</b> , 638-642, 1506-1511	0.4	12
20	Development of the Microstructure and Texture of RE Containing Magnesium Alloys during Hot Rolling. <i>Materials Science Forum</i> , <b>2010</b> , 654-656, 580-585	0.4	10
19	Microstructural evolution during the annealing of an extruded AZ31 magnesium alloy. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 506, 364-371	5.7	94
18	Effect of rare earth elements on the microstructure and texture development in magnesium-manganese alloys during extrusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2010</b> , 527, 7092-7098	5.3	277
17	Mechanical anisotropy and deep drawing behaviour of AZ31 and ZE10 magnesium alloy sheets. <i>Acta Materialia</i> , <b>2010</b> , 58, 592-605	8.4	260
16	Modelling of Thermo-Mechanical Behaviour of Magnesium Alloys during Indirect Extrusion. <i>Key Engineering Materials</i> , <b>2009</b> , 424, 167-171	0.4	1
15	Mg sheet: the effect of process parameters and alloy composition on texture and mechanical properties. <i>Jom</i> , <b>2009</b> , 61, 38-42	2.1	36
14	Acoustic emission study of the deformation behaviour of magnesium sheets. <i>International Journal of Materials Research</i> , <b>2009</b> , 100, 790-795	0.5	6
13	On the Fatigue Behaviour of Wrought Magnesium Alloys*. <i>Materialpruefung/Materials Testing</i> , <b>2009</b> , 51, 542-546	1.9	
12	The texture and anisotropy of magnesium-zinc-rare earth alloy sheets. <i>Acta Materialia</i> , <b>2007</b> , 55, 2101-2112	1.2	867
11	Acoustic emission during stress relaxation of pure magnesium and AZ magnesium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 462, 307-310	5.3	32
10	Deformation mechanisms in an AZ31 cast magnesium alloy as investigated by the acoustic emission technique. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 462, 297-301	5.3	32

9	On the influence of the grain size and solute content on the AE response of magnesium alloys tested in tension and compression. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 462, 302-306	5.3	139
8	New Developments in Extruded Magnesium Alloys for Structural Applications. <i>Materials Science Forum</i> , <b>2007</b> , 561-565, 1545-1548	0.4	2
7	Damping Measurements of the Magnesium Wrought Alloys AZ31, AZ61 and AZ80 after Indirect and Hydrostatic Extrusion. <i>Materials Science Forum</i> , <b>2005</b> , 482, 387-390	0.4	23
6	Hydrostatic and Indirect Extrusion of AZ-Magnesium Alloys. <i>Materials Science Forum</i> , <b>2005</b> , 488-489, 491-494	0.4	4
5	Metallographische Gefügeuntersuchungen von Magnesiumlegierungen / The Metallographical Examination of Magnesium Alloys. <i>Praktische Metallographie/Practical Metallography</i> , <b>2004</b> , 41, 233-246	0.3	86
4	Anisotropic Properties of Magnesium Sheet AZ31. <i>Materials Science Forum</i> , <b>2003</b> , 419-422, 315-320	0.4	76
3	Deformation Behavior of ZE10 Magnesium Alloy Sheet	225-231	
2	Acoustic Emission Analysis of Plane Strain-Compressed Mg Single Crystals	101-104	
1	Formability of Magnesium Sheet ZE10 AND AZ31 with Respect to Initial Texture	357-362	2