Karl Kainer

List of Publications by Citations

367 papers	12,366 citations	52 h-index	99 g-index
388 ext. papers	13,733 ext. citations	3.1 avg, IF	6.37 L-index

#	Paper	IF	Citations
367	Degradable biomaterials based on magnesium corrosion. *Current Opinion in Solid State and Materials Science*, **2008**, 12, 63-72	12	1291
366	Effect of rare earth additions on microstructure and texture development of magnesium alloy sheets. *Scripta Materialia*, **2010**, 63, 725-730	5.6	536
365	Magnesium alloys as implant materials--principles of property design for Mg-RE alloys. *Acta Biomaterialia*, **2010**, 6, 1714-25	10.8	411
364	A Critical Review of the Stress Corrosion Cracking (SCC) of Magnesium Alloys. *Advanced Engineering Materials*, **2005**, 7, 659-693	3.5	329
363	General and localized corrosion of magnesium alloys: A critical review. *Journal of Materials Engineering and Performance*, **2004**, 13, 7-23	1.6	315
362	Recent research and developments on wrought magnesium alloys. *Journal of Magnesium and Alloys*, **2017**, 5, 239-253	8.8	301
361	Review of studies on corrosion of magnesium alloys. *Transactions of Nonferrous Metals Society of China*, **2006**, 16, s763-s771	3.3	286
360	Effect of rare earth elements on the microstructure and texture development in magnesium□manganese alloys during extrusion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 7092-7098	5.3	277
359	Deformation and texture evolution in AZ31 magnesium alloy during uniaxial loading. *Acta Materialia*, **2006**, 54, 549-562	8.4	276
358	Plasma electrolytic oxidation coatings with particle additions □A review. *Surface and Coatings Technology*, **2016**, 307, 1165-1182	4.4	271
357	Study of the structure and corrosion behavior of PEO coatings on AM50 magnesium alloy by electrochemical impedance spectroscopy. *Surface and Coatings Technology*, **2008**, 202, 3513-3518	4.4	213
356	Microstructure and texture development during hydrostatic extrusion of magnesium alloy AZ31. *Scripta Materialia*, **2005**, 53, 259-264	5.6	199
355	Intermetallics in Magnesium Alloys. *Advanced Engineering Materials*, **2006**, 8, 235-240	3.5	180
354	Plasma electrolytic oxidation coatings on Mg alloy with addition of SiO2 particles. *Electrochimica Acta*, **2016**, 187, 20-33	6.7	170
353	Preparation and properties of high purity Mg-Y biomaterials. *Biomaterials*, **2010**, 31, 398-403	15.6	149
352	On the influence of the grain size and solute content on the AE response of magnesium alloys tested in tension and compression. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 462, 302-306	5.3	139
351	Fatigue of Magnesium Alloys. *Advanced Engineering Materials*, **2004**, 6, 281-289	3.5	138

350	Characterisation of stress corrosion cracking (SCC) of Mg–Al alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 488, 339-351	5.3	133
349	The role of anions in the formation and corrosion resistance of the plasma electrolytic oxidation coatings. *Surface and Coatings Technology*, **2010**, 204, 1469-1478	4.4	120
348	Tensile properties of hot rolled AZ31 Mg alloy sheets at elevated temperatures. *Journal of Alloys and Compounds*, **2004**, 378, 184-187	5.7	99
347	Comparison of the linearly increasing stress test and the constant extension rate test in the evaluation of transgranular stress corrosion cracking of magnesium. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 472, 97-106	5.3	97
346	Metallographische Gefügeuntersuchungen von Magnesiumlegierungen / The Metallographical Examination of Magnesium Alloys. *Praktische Metallographie/Practical Metallography*, **2004**, 41, 233-246	0.3	86
345	Surface modification of magnesium alloy AZ31 by hydrofluoric acid treatment and its effect on the corrosion behaviour. *Thin Solid Films*, **2010**, 518, 5209-5218	2.2	85
344	Investigations on microstructures, mechanical and corrosion properties of Mg–Gd–Zn alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2014**, 595, 224-234	5.3	84
343	Corrosion of an extruded magnesium alloy ZK60 component—The role of microstructural features. *Journal of Alloys and Compounds*, **2011**, 509, 4462-4469	5.7	84
342	Insights into plasma electrolytic oxidation treatment with particle addition. *Corrosion Science*, **2015**, 101, 201-207	6.8	78
341	Evaluation of the delayed hydride cracking mechanism for transgranular stress corrosion cracking of magnesium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 466, 18-31	5.3	78
340	Anisotropic Properties of Magnesium Sheet AZ31. *Materials Science Forum*, **2003**, 419-422, 315-320	0.4	76
339	Corrosion protection of magnesium alloy AZ31 sheets by spin coating process with poly(ether imide) [PEI]. *Corrosion Science*, **2010**, 52, 2066-2079	6.8	74
338	Corrosion of friction stir welded magnesium alloy AM50. *Corrosion Science*, **2009**, 51, 1738-1746	6.8	73
337	Element distribution in the corrosion layer and cytotoxicity of alloy Mg-10Dy during in vitro biodegradation. *Acta Biomaterialia*, **2013**, 9, 8475-87	10.8	72
336	Influence of inorganic acid pickling on the corrosion resistance of magnesium alloy AZ31 sheet. *Corrosion Science*, **2009**, 51, 2544-2556	6.8	72
335	Investigation of the formation mechanisms of plasma electrolytic oxidation coatings on Mg alloy AM50 using particles. *Electrochimica Acta*, **2016**, 196, 680-691	6.7	70
334	Calcium and zirconium as texture modifiers during rolling and annealing of magnesium–zinc alloys. *Materials Characterization*, **2015**, 101, 144-152	3.9	67
333	Mechanical and corrosion properties of binary Mg–Dy alloys for medical applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2011**, 176, 1827-1834	3.1	65

332	Microstructure, mechanical and corrosion properties of Mg-Dy-Gd-Zr alloys for medical applications. *Acta Biomaterialia*, **2013**, 9, 8499-508	10.8	64
331	Hot tearing susceptibility of binary Mg Y alloy castings. *Materials & Design*, **2013**, 47, 90-100		63
330	Degradation behavior of PEO coating on AM50 magnesium alloy produced from electrolytes with clay particle addition. *Surface and Coatings Technology*, **2015**, 269, 155-169	4.4	62
329	Fracture toughness behaviour of a magnesium alloy metal-matrix composite produced by the infiltration technique. *Composites*, **1991**, 22, 456-462		62
328	Role of multi-microalloying by rare earth elements in ductilization of magnesium alloys. *Journal of Magnesium and Alloys*, **2014**, 2, 1-7	8.8	61
327	Phase equilibria, thermodynamics and solidification microstructures of Mg Sn Ca alloys, Part 2: Prediction of phase formation in Mg-rich Mg Sn Ca cast alloys. *Intermetallics*, **2008**, 16, 316-321	3.5	61
326	Fundamentals of magnesium alloy metallurgy **2013**,		61
325	Mechanism of grain refinement of Mg Al alloys by SiC inoculation. *Scripta Materialia*, **2011**, 64, 793-796	5.6	60
324	Magnesium Permanent Mold Castings Optimization. *Materials Science Forum*, **2011**, 690, 65-68	0.4	59
323	Magnesium global development: Outcomes from the TMS 2007 annual meeting. *Jom*, **2007**, 59, 39-42	2.1	59
322	Fractography of Stress Corrosion Cracking of Mg-Al Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 1157-1173	2.3	58
321	Microstructure and corrosion behavior of Mg-Sn-Ca alloys after extrusion. *Transactions of Nonferrous Metals Society of China*, **2009**, 19, 40-44	3.3	57
320	Orientation effects on acoustic emission during tensile deformation of hot rolled magnesium alloy AZ31. *Journal of Alloys and Compounds*, **2004**, 378, 207-213	5.7	56
319	Hot working parameters and mechanisms in as-cast Mg Sn Ca alloy. *Materials Letters*, **2008**, 62, 4207-4209	3.3	55
318	3D reconstruction of plasma electrolytic oxidation coatings on Mg alloy via synchrotron radiation tomography. *Corrosion Science*, **2018**, 139, 395-402	6.8	55
317	Influence of incorporating Si3N4 particles into the oxide layer produced by plasma electrolytic oxidation on AM50 Mg alloy on coating morphology and corrosion properties. *Journal of Magnesium and Alloys*, **2013**, 1, 267-274	8.8	52
316	Optimum parameters and rate-controlling mechanisms for hot working of extruded Mg Sn Ca alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 502, 25-31	5.3	52
315	Testing of general and localized corrosion of magnesium alloys: A critical review. *Journal of Materials Engineering and Performance*, **2004**, 13, 517-529	1.6	52

314	In vitro mechanical and corrosion properties of biodegradable Mg Ag alloys. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2014**, 65, 569-576	1.6	51
313	Corrosion behavior of Mg Gd Zn based alloys in aqueous NaCl solution. *Journal of Magnesium and Alloys*, **2014**, 2, 245-256	8.8	51
312	Effects of organic acid pickling on the corrosion resistance of magnesium alloy AZ31 sheet. *Corrosion Science*, **2010**, 52, 2143-2154	6.8	50
311	Influence of ageing treatment on microstructure, mechanical and bio-corrosion properties of Mg-Dy alloys. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 13, 36-44	4.1	48
310	Magnesium secondary alloys: Alloy design for magnesium alloys with improved tolerance limits against impurities. *Corrosion Science*, **2010**, 52, 2452-2468	6.8	48
309	Influence of cerium additions on the corrosion behaviour of high pressure die cast AM50 alloy. *Corrosion Science*, **2012**, 65, 145-151	6.8	47
308	Corrosion protection of magnesium AZ31 alloy using poly(ether imide) [PEI] coatings prepared by the dip coating method: Influence of solvent and substrate pre-treatment. *Corrosion Science*, **2011**, 53, 338-346	6.8	47
307	Influence of microstructure on tensile properties and fatigue crack growth in extruded magnesium alloy AM60. *International Journal of Fatigue*, **2010**, 32, 411-419	5	47
306	Influence of Rolling Conditions on the Microstructure and Mechanical Properties of Magnesium Sheet AZ31. *Advanced Engineering Materials*, **2003**, 5, 891-896	3.5	46
305	Waste Mg-Al based alloys for hydrogen storage. *International Journal of Hydrogen Energy*, **2018**, 43, 16736-16748	3.7	44
304	Investigation of minimum creep rates and stress exponents calculated from tensile and compressive creep data of magnesium alloy AE42. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 510-511, 382-386	5.3	44
303	Influence of composition on hot tearing in binary Mg Zn alloys. *International Journal of Cast Metals Research*, **2011**, 24, 170-176	1	44
302	Influence of surface pre-treatment on the deposition and corrosion properties of hydrophobic coatings on a magnesium alloy. *Corrosion Science*, **2016**, 112, 483-494	6.8	43
301	Hot workability characteristics of cast and homogenized Mg Sn Ca alloy. *Journal of Materials Processing Technology*, **2008**, 201, 359-363	5.3	42
300	Hot deformation behavior of Mg Sn Ca alloy in as-cast condition and after homogenization. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2012**, 552, 444-450	5.3	41
299	Strain induced GdH2 precipitate in Mg Gd based alloys. *Intermetallics*, **2011**, 19, 382-389	3.5	41
298	Texture and microstructure evolution in ultrafine-grained AZ31 processed by EX-ECAP. *Journal of Materials Science*, **2010**, 45, 4665-4671	4.3	41
297	Effect of Heat Treatment on the Microstructure and Creep Behavior of Mg-Sn-Ca Alloys. *Materials Science Forum*, **2007**, 546-549, 69-72	0.4	41

296	Magnesium-base hybrid composites prepared by liquid infiltration. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1991**, 135, 33-36	5.3	41
295	High cycle fatigue behaviour of magnesium alloys. *Procedia Engineering*, **2010**, 2, 743-750		40
294	Stress Relaxation in AX41 Magnesium Alloy Studied at Elevated Temperatures. *Advanced Engineering Materials*, **2007**, 9, 370-374	3.5	40
293	Thermodynamic assessment and experimental study of Mg□d alloys. *Journal of Alloys and Compounds*, **2013**, 581, 166-177	5.7	39
292	Investigations in the Magnesium-Tin System. *Materials Science Forum*, **2005**, 488-489, 135-138	0.4	38
291	Hydrostatic extrusion of commercial magnesium alloys at 100□C and its influence on grain refinement and mechanical properties. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 424, 223-229	5.3	38
290	Stress corrosion cracking behaviour of a surface-modified magnesium alloy. *Scripta Materialia*, **2008** , 59, 43-46	5.6	37
289	Basics of Metal Matrix Composites **2006**, 1-54		37
288	Controlled degradation of a magnesium alloy in simulated body fluid using hydrofluoric acid treatment followed by polyacrylonitrile coating. *Corrosion Science*, **2012**, 62, 83-89	6.8	36
287	Mg sheet: the effect of process parameters and alloy composition on texture and mechanical properties. *Jom*, **2009**, 61, 38-42	2.1	36
286	The Effect of Grain Size on the Deformation Behaviour of Magnesium Alloys Investigated by the Acoustic Emission Technique. *Advanced Engineering Materials*, **2006**, 8, 422-427	3.5	36
285	Investigation of the mechanical behaviour of magnesium composites. *Composites*, **1994**, 25, 296-302		36
284	Influence of electrical parameters on particle uptake during plasma electrolytic oxidation processing of AM50 Mg alloy. *Surface and Coatings Technology*, **2016**, 289, 179-185	4.4	35
283	Experimental and numerical analysis of hot tearing susceptibility for Mg□ alloys. *Journal of Materials Science*, **2014**, 49, 353-362	4.3	35
282	Evolution of microstructure and hardness of AE42 alloy after heat treatments. *Journal of Alloys and Compounds*, **2008**, 463, 238-245	5.7	35
281	Tensile and compressive creep behaviour of Al2O3 (Saffil□) short fiber reinforced magnesium alloy AE42. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 410-411, 85-88	5.3	35
280	Microstructures and mechanical properties of pure Mg processed by rotary swaging. *Materials & Design*, **2014**, 63, 83-88		34
279	Spray Forming of Magnesium Alloys and Composites. *Powder Metallurgy*, **1997**, 40, 126-130	1.9	34

278	Measurement and calculation of the viscosity of metals□ review of the current status and developing trends. *Measurement Science and Technology*, **2014**, 25, 062001	2	33
277	Hot tearing mechanisms of B206 aluminum□opper alloy. *Materials & Design*, **2014**, 64, 44-55		33
276	Influence of aging on damping of the magnesium□luminium□inc series. *Journal of Alloys and Compounds*, **2007**, 437, 127-132	5.7	33
275	Influence of particle additions on corrosion and wear resistance of plasma electrolytic oxidation coatings on Mg alloy. *Surface and Coatings Technology*, **2018**, 352, 1-14	4.4	32
274	Hot Tearing Characteristics of Binary Mg-Gd Alloy Castings. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 2285-2298	2.3	32
273	Study on the interface of PVDF coatings and HF-treated AZ31 magnesium alloy: Determination of interfacial interactions and reactions with self-healing properties. *Corrosion Science*, **2011**, 53, 712-719	6.8	32
272	Hot tearing behaviour of binary Mg□Al alloy using a contraction force measuring method. *International Journal of Cast Metals Research*, **2009**, 22, 331-334	1	32
271	Wrought magnesium alloys for structural applications. *Materials Science and Technology*, **2008**, 24, 991-996	2.5	32
270	Acoustic emission during stress relaxation of pure magnesium and AZ magnesium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 462, 307-310	5.3	32
269	Deformation mechanisms in an AZ31 cast magnesium alloy as investigated by the acoustic emission technique. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 462, 297-301	5.3	32
268	In situ synchrotron diffraction of the solidification of Mg4Y3Nd. *Materials Letters*, **2013**, 102-103, 62-64	3.3	31
267	Influence of heat treatment on the properties of short-fibre-reinforced magnesium composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **1991**, 135, 243-246	5.3	31
266	Mechanical properties and corrosion behavior of Mg-Gd-Ca-Zr alloys for medical applications. *Journal of the Mechanical Behavior of Biomedical Materials*, **2015**, 47, 38-48	4.1	30
265	Microstructure and mechanical properties of as-cast Mg□n□a alloys and effect of alloying elements. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 3604-3610	3.3	30
264	Effect of Zn addition on hot tearing behaviour of Mg□.5Ca□Zn alloys. *Materials and Design*, **2015**, 87, 157-170	8.1	30
263	New Perspectives for Wrought Magnesium Alloys. *Materials Science Forum*, **2007**, 546-549, 1-10	0.4	30
262	Effects of Gd solutes on hardness and yield strength of Mg alloys. *Progress in Natural Science: Materials International*, **2018**, 28, 724-730	3.6	30
261	Role of deformation mechanisms and grain growth in microstructure evolution during recrystallization of Mg-Nd based alloys. *Scripta Materialia*, **2019**, 166, 53-57	5.6	29

260	Stress Corrosion Cracking (SCC) in Mg-Al Alloys Studied using Compact Specimens. *Advanced Engineering Materials*, **2008**, 10, 453-458	3.5	29
259	Study of hot forging behavior of as-cast Mg□Al□Zn□Ca alloy towards optimization of its hot workability. *Materials & Design*, **2014**, 57, 697-704		28
258	Creep behavior of AE42 based hybrid composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 460-461, 268-276	5.3	28
257	Stress corrosion cracking in magnesium alloys: Characterization and prevention. *Jom*, **2007**, 59, 49-53	2.1	28
256	General and Localized Corrosion of Magnesium Alloys: A Critical Review. *Journal of Materials Engineering and Performance*, **2013**, 22, 2875-2891	1.6	27
255	Quantitative Determination on Hot Tearing in Mg-Al Binary Alloys. *Materials Science Forum*, **2009**, 618-619, 533-540	0.4	27
254	Thermal behavior of short fiber reinforced AlSi12CuMgNi piston alloys. *Composites Part A: Applied Science and Manufacturing*, **2004**, 35, 249-263	8.4	27
253	Acoustic emission during tensile testing of magnesium AZ alloys. *Journal of Alloys and Compounds*, **2004**, 378, 214-219	5.7	27
252	Experimental and numerical crushing analyses of thin-walled magnesium profiles. *International Journal of Crashworthiness*, **2015**, 20, 177-190	1	26
251	Compressive strength and hot deformation behavior of TX32 magnesium alloy with 0.4% Al and 0.4% Si additions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 6964-6970	5.3	26
250	Microstructure Changes in Isochronally Annealed Alumina Fibre Reinforced Mg□Ag□Nd□Zr Alloy. *Physica Status Solidi A*, **1997**, 164, 709-723		26
249	Influence of the Processing of Magnesium Alloys AZ31 and ZE10 on the Sheet Formability at Elevated Temperature. *Key Engineering Materials*, **2011**, 473, 335-342	0.4	25
248	Resistivity Changes Due to Precipitation Effects in Fibre Reinforced Mg□Al□Zn□Mn Alloy. *Physica Status Solidi A*, **1997**, 161, 85-95		25
247	Unexpected formation of hydrides in heavy rare earth containing magnesium alloys. *Journal of Magnesium and Alloys*, **2016**, 4, 173-180	8.8	24
246	Corrosion of AZ 91 Secondary Magnesium Alloy. *Advanced Engineering Materials*, **2005**, 7, 1134-1142	3.5	24
245	Hot tearing characteristics of Mg□Ca□Zn alloys. *Journal of Materials Science*, **2016**, 51, 2687-2704	4.3	23
244	An Investigation on Hot Tearing of Mg-4.5Zn-(0.5Zr) Alloys with Y Additions. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2108-2118	2.3	23
243	Enhancement of Workability in AZ31 Alloy □Processing Maps: Part I, Cast Material. *Advanced Engineering Materials*, **2006**, 8, 966-973	3.5	23

242	Some studies on the thermal-expansion behavior of C-fiber, SiC p , and In-situ Mg2Si-reinforced AZ31 Mg alloy-based hybrid composites. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 1167-1176	2.3	23
241	Influence of Ce addition on microstructure and mechanical properties of high pressure die cast AM50 magnesium alloy. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 66-72	3.3	22
240	CaO dissolution during melting and solidification of a Mg□10 wt.% CaO alloy detected with in situ synchrotron radiation diffraction. *Journal of Alloys and Compounds*, **2015**, 618, 64-66	5.7	21
239	Effect of calcium addition on the hot working behavior of as-cast AZ31 magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 588, 272-279	5.3	21
238	Magnesium powder injection moulding for biomedical application. *Powder Metallurgy*, **2014**, 57, 331-340	1.9	21
237	Interrupted creep behaviour of Mg alloys developed for powertrain applications. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 2289-2296	5.3	21
236	Acoustic Emission and Dilatometry for Non-Destructive Characterisation of Microstructural Changes in Mg Based Metal Matrix Composites Submitted to Thermal Cycling. *Scripta Materialia*, **1997**, 38, 81-87	5.6	21
235	Microstructure evolution and tensile properties of friction-stir-welded AM50 magnesium alloy. *Transactions of Nonferrous Metals Society of China*, **2008**, 18, s76-s80	3.3	21
234	Magnesium □der Zukunftswerkstoff f□ die Automobilindustrie?. *Materialwissenschaft Und Werkstofftechnik*, **2007**, 38, 91-96	0.9	21
233	In situ measurements of texture variations during a tensile loading of Mg-alloy AM20 using synchrotron X-ray radiation. *Scripta Materialia*, **2004**, 51, 455-460	5.6	21
232	Analysis of instantaneous thermal expansion coefficient curve during thermal cycling in short fiber reinforced AlSi12CuMgNi composites. *Composites Science and Technology*, **2005**, 65, 137-147	8.6	21
231	Synchrotron Radiation Investigation of Twinning in Extruded Magnesium Alloy AZ3l. *Materials Science Forum*, **2005**, 495-497, 1633-1638	0.4	21
230	As cast microstructures on the mechanical and corrosion behaviour of ZK40 modified with Gd and Nd additions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 682, 238-247	5.3	20
229	Polycrystalline and amorphous MgZnCa thin films. *Corrosion Science*, **2012**, 63, 234-238	6.8	20
228	Hot workability analysis with processing map and texture characteristics of as-cast TX32 magnesium alloy. *Journal of Materials Science*, **2013**, 48, 5236-5246	4.3	20
227	Influence of Process Parameters on Twin Roll Cast Strip of the Alloy AZ31. *Materials Science Forum*, **2013**, 765, 205-209	0.4	20
226	Microstructure and creep behaviour of magnesium hybrid composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 462, 220-224	5.3	20
225	Analysis of thermal cycling curves of short fibre reinforced Mg-MMCs. *Composites Science and Technology*, **2003**, 63, 1805-1814	8.6	20

224	Understanding effects of microstructural inhomogeneity on creep response New approaches to improve the creep resistance in magnesium alloys. *Journal of Magnesium and Alloys*, **2014**, 2, 124-132	8.8	19
223	Hot working mechanisms and texture development in Mg-3Sn-2Ca-0.4Al alloy. *Materials Chemistry and Physics*, **2012**, 136, 1081-1091	4.4	19
222	On the degradation mechanism of corrosion protective poly(ether imide) coatings on magnesium AZ31 alloy. *Corrosion Science*, **2010**, 52, 3155-3157	6.8	19
221	Thermal diffusivity of short-fibre reinforced Mg-Al-Zn-Mn alloy. *Scripta Materialia*, **1998**, 40, 57-62	5.6	19
220	High Temperature Deformation Behaviour of a New Magnesium Alloy. *Key Engineering Materials*, **2007**, 340-341, 89-94	0.4	19
219	Enhancing the creep resistance of AlN/Al nanoparticles reinforced Mg-2.85Nd-0.92Gd-0.41Zr-0.29Zn alloy by a high shear dispersion technique. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 755, 18-27	5.3	18
218	Current Status and Recent Developments in Porous Magnesium Fabrication. *Advanced Engineering Materials*, **2018**, 20, 1700562	3.5	18
217	Influence of Nd or Ca addition on the dislocation activity and texture changes of Mg Zn alloy sheets under uniaxial tensile loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 761, 138053	5.3	18
216	New Development in Magnesium Technology for Light Weight Structures in Transportation Industries. *Materials Science Forum*, **2003**, 426-432, 153-160	0.4	18
215	The effect of zirconium addition on sintering behaviour, microstructure and creep resistance of the powder metallurgy processed alloy Ti 45Al 5Nb 0.2B 0.2C. *Materials and Design*, **2015**, 84, 87-94	8.1	17
214	Hot Tearing Susceptibility of Mg-Ca Binary Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 6003-6017	2.3	17
213	Investigation of electrode distance impact on PEO coating formation assisted by simulation. *Applied Surface Science*, **2016**, 388, 304-312	6.7	17
212	Effect of aluminium and calcium on the microstructure, texture, plastic deformation and related acoustic emission of extruded magnesium manganese alloys. *Journal of Alloys and Compounds*, **2014**, 617, 253-264	5.7	17
211	Bulk and local textures of pure magnesium processed by rotary swaging. *Journal of Magnesium and Alloys*, **2013**, 1, 341-345	8.8	17
210	Investigations on thermal fatigue of aluminum- and magnesium-alloy based composites. *International Journal of Fatigue*, **2006**, 28, 1399-1405	5	17
209	Corrosion Behaviour of Magnesium Alloys with RE Additions in Sodium Chloride Solutions. *Materials Science Forum*, **2003**, 419-422, 867-872	0.4	17
208	Processing Effects on the Formability of Magnesium Alloy Sheets. *Metals*, **2018**, 8, 147	2.3	16
207	Influence of electrolyte constituents on corrosion behaviour of PEO coatings on magnesium alloys. *Surface Engineering*, **2010**, 26, 321-327	2.6	16

206	Neutron diffraction study on the texture development during extrusion of magnesium alloy AZ31. *Physica B: Condensed Matter*, **2004**, 350, E507-E509	2.8	16
205	Interface formation in carbon fibre reinforced magnesium alloys (AZ91). *Journal of Materials Science Letters*, **1995**, 14, 358-360		16
204	A model describing the growth of a PEO coating on AM50 Mg alloy under constant voltage mode. *Electrochimica Acta*, **2017**, 251, 461-474	6.7	16
203	Creep behavior of Mg□10Gd□Zn (x=2 and 6 wt%) alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 649, 158-167	5.3	15
202	Influence of Dy in solid solution on the degradation behavior of binary Mg-Dy alloys in cell culture medium. *Materials Science and Engineering C*, **2017**, 75, 1351-1358	8.3	15
201	Hot Deformation Mechanisms in AZ31 Magnesium Alloy Extruded at Different Temperatures: Impact of Texture. *Metals*, **2012**, 2, 292-312	2.3	15
200	Analysing hysteresis and residual strains in thermal cycling curves of short fibre reinforced Mg-MMCs. *Composites Science and Technology*, **2004**, 64, 1179-1189	8.6	15
199	Microstructural investigations of interfaces in short fiber reinforced AlSi12CuMgNi composites. *Acta Materialia*, **2005**, 53, 3913-3923	8.4	15
198	Metallurgical Characterization of Hot Tearing Curves Recorded during Solidification of Magnesium Alloys. *Acta Physica Polonica A*, **2012**, 122, 497-500	0.6	15
197	High ductile as-cast MgRE based alloys at room temperature. *Materials Letters*, **2012**, 83, 209-212	3.3	14
196	Identification of unexpected hydrides in Mg□0 wt% Dy alloy by high-brilliance synchrotron radiation. *Journal of Applied Crystallography*, **2012**, 45, 17-21	3.8	14
195	Compressive strength and hot deformation mechanisms in as-cast Mg-4Al-2Ba-2Ca (ABaX422) alloy. *Philosophical Magazine*, **2013**, 93, 4364-4377	1.6	14
194	Study of the Solidification of AS Alloys Combining In Situ Synchrotron Diffraction and Differential Scanning Calorimetry. *Materials Science Forum*, **2013**, 765, 286-290	0.4	14
193	Status of the Development of Creep Resistant Magnesium Materials for Automotive Applications. *Materials Science Forum*, **2010**, 638-642, 73-80	0.4	14
192	Effect of Microstructural Inhomogeneity on Creep Response of Mg-Sn Alloys. *Key Engineering Materials*, **2007**, 345-346, 561-564	0.4	14
191	Comparison of Corrosion Properties of Squeeze Cast and Thixocast MgZnRE Alloys. *Materials Science Forum*, **2005**, 488-489, 697-700	0.4	14
190	Acoustic emission study of the mechanical anisotropy of the extruded AZ31 alloy. *International Journal of Materials Research*, **2009**, 100, 888-891	0.5	14
189	Properties and processing of magnesium-tin-calcium alloys. *Metallic Materials*, **2011**, 49, 163-177	1.3	14

188	Dynamic Strain Ageing During Stress Relaxation in Selected Magnesium Alloys Containing Rare earth Elements. *Advanced Engineering Materials*, **2005**, 7, 1027-1032	3.5	13
187	The ORPHEUS dark matter experiment. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **1996**, 370, 227-229	1.2	13
186	Formation of photocatalytic plasma electrolytic oxidation coatings on magnesium alloy by incorporation of TiO2 particles. *Surface and Coatings Technology*, **2016**, 307, 287-291	4.4	12
185	Effect of silicon content on hot working, processing maps, and microstructural evolution of cast TX32□.4Al magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 606, 11-23	5.3	12
184	Effects of Sn segregation and precipitates on creep response of Mg-Sn alloys. *Fatigue and Fracture of Engineering Materials and Structures*, **2013**, 36, 308-315	3	12
183	Effect of particulate content on the thermal cycling behaviour of the magnesium alloy based hybrid composites. *Composites Part A: Applied Science and Manufacturing*, **2005**, 36, 321-325	8.4	12
182	Characteristics of thermal cycling in a magnesium alloy composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 325, 320-323	5.3	12
181	Sintering Behavior and Microstructure Formation of Titanium Aluminide Alloys Processed by Metal Injection Molding. *Jom*, **2017**, 69, 676-682	2.1	11
180	Investigations on Hot Tearing of Mg-Zn-(Al) Alloys **2011**, 125-130		11
179	Production of High Strength Al□Mg□Sc Alloys by PM. *Powder Metallurgy*, **1998**, 41, 119-122	1.9	11
178	Mechanical behaviour of magnesium alloy MMCs produced by squeeze casting and powder metallurgical techniques. *Composites Part B: Engineering*, **1993**, 3, 489-505		11
177	Influence of the amount of intermetallics on the degradation of Mg-Nd alloys under physiological conditions. *Acta Biomaterialia*, **2021**, 121, 695-712	10.8	11
176	Influence of SiO2 Particles on the Corrosion and Wear Resistance of Plasma Electrolytic Oxidation-Coated AM50 Mg Alloy. *Coatings*, **2018**, 8, 306	2.9	11
175	In situ synchrotron radiation diffraction study of the role of Gd, Nd on the elevated temperature compression behavior of ZK40. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 640, 129-136	5.3	10
174	Influences of Y Additions on the Hot Tearing Susceptibility of Mg-1.5wt.%Zn Alloys. *Materials Science Forum*, **2013**, 765, 306-310	0.4	10
173	Development of the Microstructure and Texture of RE Containing Magnesium Alloys during Hot Rolling. *Materials Science Forum*, **2010**, 654-656, 580-585	0.4	10
172	An evaluation of the creep characteristics of an AZ91 magnesium alloy composite using acoustic emission. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 338, 1-7	5.3	10
171	In situ synchrotron radiation diffraction investigation of the compression behaviour at 350□C of ZK40 alloys with addition of CaO and Y. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 664, 2-9	5.3	10

170	Influence of Alloying Elements and Extrusion Process Parameter on the Recrystallization Process of Mg-Zn alloys. *Materials Today: Proceedings*, **2015**, 2, S19-S25	1.4	9
169	Crashworthiness of Magnesium Sheet Structures. *Materials Science Forum*, **2013**, 765, 590-594	0.4	9
168	Effect of Minor Additions of Al and Si on the Mechanical Properties of Cast Mg-3Sn-2Ca Alloys in Low Temperature Range. *Materials Science Forum*, **2010**, 654-656, 635-638	0.4	9
167	Effect of thermal and mechanical treatments on the hot working response of Mg-3Sn-1Ca alloy. *International Journal of Materials Research*, **2010**, 101, 300-306	0.5	9
166	Characterization of stress in reinforcements in magnesium based squeeze infiltrated cast hybrid composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 415, 207-212	5.3	9
165	Forming of magnesium alloys at 100 ℃ by hydrostatic extrusion. *Journal of Materials Engineering and Performance*, **2006**, 15, 705-711	1.6	9
164	Hydrostatic extrusion at 100℃ and its effect on the grain size and mechanical properties of magnesium alloys. *Metal Science and Heat Treatment*, **2006**, 48, 499-503	0.6	9
163	On the Direct Extrusion of Magnesium Wires from Mg-Al-Zn Series Alloys. *Metals*, **2020**, 10, 1208	2.3	9
162	Influences of Al and high shearing dispersion technique on the microstructure and creep resistance of Mg-2.85Nd-0.92Gd-0.41Zr-0.29Zn alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 764, 138215	5.3	8
161	Development of High Performance Single-Phase Solid Solution Magnesium Alloy at Low Temperature. *Advanced Engineering Materials*, **2012**, 14, 178-184	3.5	8
160	Recycling of magnesium drive train components. *Science in China Series D: Earth Sciences*, **2009**, 52, 148-154		8
159	Effects of segregation of primary alloying elements on the creep response in magnesium alloys. *Scripta Materialia*, **2008**, 58, 894-897	5.6	8
158	Effect of Alumina Fibre Content on Properties of PM 6061 Aluminium Alloy Based Composite Materials. *Powder Metallurgy*, **1992**, 35, 133-136	1.9	8
157	Comparative study of microstructure and texture of cast and homogenized TX32 magnesium alloy after hot deformation. *Metals and Materials International*, **2015**, 21, 134-146	2.4	7
156	High Strength Magnesium Alloys Through Precipitation Hardening and Micro Alloying: Considerations for Alloy Design. *Jom*, **2015**, 67, 2427-2432	2.1	7
155	Effect of Ca and Nd on the microstructural development during dynamic and static recrystallization of indirectly extruded Mg□n based alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 793, 139527	5.3	7
154	Individual/synergistic effects of Al and AlN on the microstructural evolution and creep resistance of Elektron21 alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 777, 139072	5.3	7
153	Corrosion behaviour of as-cast ZK40 with CaO and Y additions. *Transactions of Nonferrous Metals Society of China*, **2018**, 28, 427-439	3.3	7

152	The Effect of Solid Solute and Precipitate Phase on Young's Modulus of Binary MgRE Alloys. *Advanced Engineering Materials*, **2018**, 20, 1800271	3.5	7
151	Effect of aluminum on microstructural evolution during hot deformation of TX32 magnesium alloy. *Journal of Materials Science*, **2014**, 49, 5885-5898	4.3	7
150	Influence of plasma electrolytic oxidation coatings on fatigue performance of AZ31 Mg alloy. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2017**, 68, 50-57	1.6	7
149	Magnesium Melt Protection. *Materials Science Forum*, **2015**, 828-829, 78-81	0.4	7
148	From titanium to magnesium: processing by advanced metal injection moulding. *Powder Metallurgy* , **2012**, 55, 315-321	1.9	7
147	Mechanical properties and corrosion behaviour of freestanding, precipitate-free magnesium WE43 thin films. *International Journal of Materials Research*, **2013**, 104, 286-292	0.5	7
146	Compression Creep at 240°C of Extruded Magnesium Alloys Containing Gadolinium. *Materials Science Forum*, **2011**, 690, 270-273	0.4	7
145	Thermal cycling behaviour of the magnesium alloy based hybrid composites in the transverse direction. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 454-455, 367-370	5.3	7
144	Powder Metallurgically Manufactured Metal Matrix Composites **2006**, 243-276		7
143	Creep of Magnesium Composites Investigated by the Acoustic Emission Technique. *Advanced Engineering Materials*, **2000**, 2, 600-604	3.5	7
142	The ORPHEUS dark matter experiment. *Nuclear Physics, Section B, Proceedings Supplements*, **2000**, 87, 117-119		7
141	Deformation of Short Fibre Reinforced Mg Alloys Caused by Thermally Induced Stresses. *Key Engineering Materials*, **1995**, 97-98, 37-42	0.4	7
140	Mg Alloys: Challenges and Achievements in Controlling Performance, and Future Application Perspectives. *Minerals, Metals and Materials Series*, **2018**, 3-14	0.3	6
139	Development of Pore-Free Ti-Si-C MAX/Al-Si Composite Materials Manufactured by Squeeze Casting Infiltration. *Journal of Materials Engineering and Performance*, **2019**, 28, 6248-6257	1.6	6
138	Development of a magnesium secondary alloy system for mixed magnesium post-consumer scrap. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2013**, 576, 222-230	5.3	6
137	High Temperature Deformation and Microstructural Features of TXA321 Magnesium Alloy: Correlations with Processing Map. *Advanced Engineering Materials*, **2013**, 15, 761-766	3.5	6
136	Non-destructive characterisation of microstructure evolution in Mg based metal matrix composites submitted to thermal cycling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1997**, 234-236, 774-777	5.3	6
135	Measurement of crack induced damping of cast magnesium alloy AZ91. *Journal of Alloys and Compounds*, **2004**, 378, 220-225	5.7	6

134	Improvement of the phase transition homogeneity of superheated superconducting tin granules. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2000**, 444, 285-288	1.2	6
133	Dislocation Generation in Mg Matrix Composites due to Thermal Cycling. *Key Engineering Materials*, **1996**, 127-131, 1001-1008	0.4	6
132	Properties of consolidated magnesium alloy powder. *Metal Powder Report*, **1990**, 45, 684-687	2	6
131	Acoustic emission study of the deformation behaviour of magnesium sheets. *International Journal of Materials Research*, **2009**, 100, 790-795	0.5	6
130	Effect of Heat Treatment on the Corrosion Behavior of Mg-10Gd Alloy in 0.5% NaCl Solution. *Frontiers in Materials*, **2020**, 7,	4	5
129	Simulation assisted investigation of substrate geometry impact on PEO coating formation. *Surface and Coatings Technology*, **2018**, 350, 281-297	4.4	5
128	Enhanced predictive corrosion modeling with implicit corrosion products. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2019**, 70, 2247-2255	1.6	5
127	Research with Neutron and Synchrotron Radiation on Aerospace and Automotive Materials and Components. *Advanced Engineering Materials*, **2011**, 13, 637-657	3.5	5
126	Corrosion Behavior of As-Cast Binary Mg-Dy Alloys. *Materials Science Forum*, **2011**, 690, 417-421	0.4	5
125	Effects of Processing, Texture and Temperature on the Formability of AZ31 and ZE10 Sheets. *Materials Science Forum*, **2011**, 690, 298-301	0.4	5
124	Micro-Strain Induced by Thermal Cycling in Short Fiber Reinforced AlSi12CuMgNi Piston Alloy and AE42 Magnesium Alloy. *Advanced Engineering Materials*, **2004**, 6, 883-888	3.5	5
123	Creep behaviour of a QE22/SiC particle reinforced composite investigated by acoustic emission and scanning electron microscopy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2000**, 291, 246-249	5.3	5
122	Status report on the ORPHEUS dark matter detector and on its SQUID readout system. *Nuclear Physics, Section B, Proceedings Supplements*, **1999**, 70, 101-105		5
121	Powder Metallurgically Produced Metal/Glass Composites. *Powder Metallurgy*, **1984**, 27, 30-38	1.9	5
120	Corrosion and Creep Resistance of Thixomolded® Magnesium Alloys. *Minerals, Metals and Materials Series*, **2017**, 381-389	0.3	4
119	Effects of heat treatment on the microstructural evolution and creep resistance of Elektron21 alloy and its nanocomposite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 789, 139669	5.3	4
118	Forging of cast Mg-3Sn-2Ca-0.4Al-0.4Si magnesium alloy using processing map. *Journal of Mechanical Science and Technology*, **2016**, 30, 2699-2705	1.6	4
117	Enhanced predictive corrosion modeling via randomly distributed boundary conditions. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2018**, 69, 1720-1728	1.6	4

116	Processing Effects on the Formability of Extruded Flat Products of Magnesium Alloys. *Frontiers in Materials*, **2019**, 6,	4	4
115	A Study on the Hot Deformation Behavior of Cast Mg-4Sn-2Ca (TX42) Alloy. *Jom*, **2014**, 66, 322-328	2.1	4
114	Influence of Die Lubricants on Pickling and Conversion Treatment of High-Pressure Die-Cast AM30 Magnesium Alloy. *Advanced Engineering Materials*, **2012**, 14, 227-235	3.5	4
113	Microstructure, Mechanical and Corrosion Properties of Mg-Gd-Zn Alloys. *Materials Science Forum*, **2013**, 765, 28-32	0.4	4
112	Vermeidung von Bimetallkorrosion – Systematische Entwicklung eines Magnesium Karosseriebauteils. *Materialwissenschaft Und Werkstofftechnik*, **2010**, 41, 853-860	0.9	4
111	Hydrostatic and Indirect Extrusion of AZ-Magnesium Alloys. *Materials Science Forum*, **2005**, 488-489, 491-494	0.4	4
110	Electrical Resistometry of Mg-Based Microcrystalline Alloys and Mg-Based Composites. *Materials Science Forum*, **1996**, 210-213, 635-642	0.4	4
109	Stress Relaxation of Short Fiber Reinforced Mg Metal Matrix Composites after Thermal Cycling. *Materials Science Forum*, **1996**, 210-213, 503-510	0.4	4
108	Effect of Thermal Cycling on the Damping Behaviour of Mg Matrix Composites. *Key Engineering Materials*, **1996**, 127-131, 993-1000	0.4	4
107	Properties of PM-manufactured 6061 Al-base composite materials strengthened with α-alumina fibers. *Composites Part B: Engineering*, **1991**, 1, 363-374		4
106	Formability of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture **2011**, 373-378		4
105	Effects of Intermetallic Microstructure on Degradation of Mg-5Nd Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 5498-5515	2.3	4
104	Predictive modeling of long-time crevice evolution at e-coat defects under climate chamber test conditions. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2017**, 68, 699-710	1.6	3
103	Twin-Roll Casting after Intensive Melt Shearing and Subsequent Rolling of an AM30 Magnesium Alloy with Addition of CaO and SiC. *Materials Science Forum*, **2015**, 828-829, 35-40	0.4	3
102	Sintering behaviour of Ti-45Al-5Nb-0.2B-0.2C alloy modifications by additions of elemental titanium and aluminium. *Powder Metallurgy*, **2015**, 58, 369-375	1.9	3
101	Investigation of hot workability behavior of as-cast Mg-5Sn-2Ca (TX52) magnesium alloy through processing map. *Production and Manufacturing Research*, **2014**, 2, 241-252	3.3	3
100	Hot Tearing Susceptibility of Magnesium–Gadolinium Binary Alloys. *Transactions of the Indian Institute of Metals*, **2012**, 65, 701-706	1.2	3
99	Improving Corrosion Resistance of Mg10Gd Alloy. *Materials Science Forum*, **2013**, 765, 673-677	0.4	3

98	Global Magnesium Research: State-of-the-Art and What's Next? **2011**, 5-5		3
97	Magnesium Matrix Composites: State-of the-Art and what the Future. *Advanced Materials Research*, **2011**, 410, 275-278	0.5	3
96	Effects of Welding Conditions on Microstructural Transformations and Mechanical Properties in AE42-HP Friction Welded Joints. *Welding in the World, Le Soudage Dans Le Monde*, **2008**, 52, 10-17	1.9	3
95	Influence of Processing Route on the Properties of Magnesium Alloys. *Solid State Phenomena*, **2008** , 141-143, 43-48	0.4	3
94	Mechanical Properties and Corrosion Performance of AZ-Mg Alloy Modified with Ca and Sr. *SAE International Journal of Materials and Manufacturing*, **2008**, 1, 103-110	1	3
93	Creep Behaviour of Magnesium Monolithic Alloys and Composites. *Materials Science Forum*, **2003**, 419-422, 805-810	0.4	3
92	Microstructural Development in Tension and Compression Creep of Magnesium Alloy AE42. *Materials Science Forum*, **2005**, 482, 271-274	0.4	3
91	Investigations in the Magnesium-Tin System. *Materials Science Forum*,135-138	0.4	3
90	3D Microstructural Evolution on Solidifying Mg Nd Zn Alloy Observed via In Situ Synchrotron Tomography. *Minerals, Metals and Materials Series*, **2017**, 605-612	0.3	2
89	Unexpected Expansion Behavior of Mg-Al Alloys During Isothermal Ageing. *Jom*, **2019**, 71, 2906-2912	2.1	2
88	Thixomolded AZ91D and MRI153M magnesium alloys and their enhanced corrosion resistance. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2020**, 71, 339-351	1.6	2
87	Deformation and Recrystallization Mechanisms and Their Influence on the Microstructure Development of Rare Earth Containing Magnesium Sheets. *Minerals, Metals and Materials Series*, **2018**, 209-216	0.3	2
86	Magnesium Pistons in Engines: Fiction or Fact?. *Minerals, Metals and Materials Series*, **2018**, 349-353	0.3	2
85	Challenges and Solutions in the Development of Magnesium Sheet for Sustainable Vehicle Concepts. *Materials Science Forum*, **2015**, 828-829, 15-22	0.4	2
84	The formation of Sr6.33Mg16.67Si13 in magnesium alloy AM50 and its effect on mechanical properties. *Journal of Materials Science*, **2012**, 47, 5461-5469	4.3	2
83	FormabiHty of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture **2011**, 373-378		2
82	High Temperature Deformation Mechanisms and Processing Map for Hot Working of Cast-Homogenized Mg-3Sn-2Ca Alloy. *Materials Science Forum*, **2010**, 638-642, 3616-3621	0.4	2
81	Influence of Strontium, Silicon and Calcium Additions on the Properties of the AM50 Alloy. *Materials Science Forum*, **2009**, 618-619, 459-462	0.4	2

80	Microstructural Evolution during Recrystallization of Magnesiun Alloys. *Materials Science Forum*, **2012**, 706-709, 1291-1296	0.4	2
79	New Developments in Extruded Magnesium Alloys for Structural Applications. *Materials Science Forum*, **2007**, 561-565, 1545-1548	0.4	2
78	First runs with the ORPHEUS dark matter detector. *Nuclear Physics, Section B, Proceedings Supplements*, **2002**, 110, 106-108		2
77	The Texture Evolutions of Mg Alloy, AZ31, under Uni-Axial Loading. *Materials Science Forum*, **2005**, 495-497, 1585-1590	0.4	2
76	Internal friction in magnesium reinforced by short Al2O3 fibres after thermal cycling. *European Physical Journal D*, **1999**, 49, 349-358		2
75	Deformation of Continuous Carbon Fibre Reinforced Mg-Alloys by Thermally Induced Stresses. *Key Engineering Materials*, **1996**, 127-131, 861-868	0.4	2
74	In Situ Investigation of Microstructure Evolution during Solidification of Mg10CaxGd (x=5, 10, 20) Alloys. *Acta Physica Polonica A*, **2015**, 128, 606-611	0.6	2
73	Profile Shape Effect on the Texture and Mechanical Properties of Extruded Rare Earth Containing Magnesium Alloys. *Acta Physica Polonica A*, **2018**, 134, 714-719	0.6	2
72	Microstructure and Mechanical Properties of Ca Containing AZX310 Alloy Sheets Produced via Twin Roll Casting Technology **2016**, 383-387		2
71	Investigations on Hot Tearing of Mg-Zn-(Al) Alloys **2011**, 125-130		2
70	Magnesium and Magnesium Alloys. *Springer Handbooks*, **2018**, 151-159	1.3	2
69	The Role of Zn on the Elevated Temperature Compression Behavior of Mg5Nd: An In Situ Synchrotron Radiation Diffraction Study. *Jom*, **2016**, 68, 3051-3056	2.1	2
68	Solid Solution Strengthening in Mg-Gd Alloys **2016**, 135-139		2
67	Formability of Magnesium Sheet ZE10 AND AZ31 with Respect to Initial Texture357-362		2
66	Influences of AlN/Al Nanoparticles on the Creep Properties of Elektron21 Prepared by High Shear Dispersion Technology. *Jom*, **2019**, 71, 2245-2252	2.1	1
65	Grain refinements of magnesium alloys inoculated by additions of external SiC particles. *IOP Conference Series: Materials Science and Engineering*, **2019**, 529, 012049	0.4	1
64	Mechanical Properties and Microstructures of Nano SiC Reinforced ZE10 Composites Prepared with Ultrasonic Vibration. *Advanced Materials Research*, **2014**, 1019, 169-176	0.5	1
63	Deformation-Induced Dynamic Precipitation during Creep in Magnesium-Tin Alloys. *Key Engineering Materials*, **2014**, 627, 365-368	0.4	1

62	Hot Forging of Cast Magnesium Alloy TX31 Using Semi-Closed Die and its Finite Element Simulation. *Materials Science Forum*, **2014**, 783-786, 449-454	0.4	1
61	Influence of Lanthanum Concentration on the Corrosion Behaviour of Binary Mg-La Alloys **2011**, 507-511		1
60	Aluminium-Rich Coring Structures in Mg-Al Alloys with Carbon Inoculation. *Materials Science Forum*, **2010**, 654-656, 675-678	0.4	1
59	Effects of Ceramic Inoculants and Intermetallic Phases on Hot Rolled AZ Magnesium Wrought Alloys. *Materials Science Forum*, **2011**, 690, 306-310	0.4	1
58	Influence of Crystallographic Texture on the High Cycle Fatigue of Extruded AZ31 Magnesium Alloy. *Materials Science Forum*, **2011**, 690, 319-322	0.4	1
57	Achievements in Deep Drawing of Magnesium Alloy Sheets. *Materials Science Forum*, **2011**, 690, 302-305	0.4	1
56	Development of a Magnesium Recycling Alloy Based on AM50. *Materials Science Forum*, **2007**, 539-543, 108-113	0.4	1
55	Particles, Fibers and Short Fibers for the Reinforcement of Metal Materials **2006**, 55-76		1
54	Influence of Heat Treatment on Microstructure of Hot Extruded AZ31. *Materials Science Forum*, **2003**, 419-422, 297-302	0.4	1
53	Thermal Cycling of Mg-MMCs. *Materials Science Forum*, **2003**, 426-432, 2119-2124	0.4	1
52	Some Studies on Mg Alloy Reinforced with Ceramic Discontinuous Phases. *Materials Science Forum*, **2003**, 419-422, 837-844	0.4	1
51	Effect of Thermal Treatment on Thermal Expansion Behaviour of Magnesium Alloy Based Hybrid Composites. *Materials Science Forum*, **2003**, 426-432, 2027-2032	0.4	1
50	Consolidation of Rapidly Quenched Powders. *Solid State Phenomena*, **1991**, 8-9, 135-148	0.4	1
49	Revisiting the tolerance limit of Fe impurity in biodegradable magnesium. *Scripta Materialia*, **2022**, 212, 114509	5.6	1
48	Effects of Mn and Zn Solutes on Grain Refinement of Commercial Pure Magnesium. *Minerals, Metals and Materials Series*, **2017**, 191-198	0.3	1
47	Effects of Gadolinium and Neodymium Addition on Young□ Modulus of Magnesium-Based Binary Alloys. *Minerals, Metals and Materials Series*, **2017**, 341-347	0.3	1
46	Advances in Manufacturing Processes for Magnesium Alloys **2016**, 19-24		1
45	Die Leichtbauwerkstoffe f□den Fahrzeugbau **2017**, 205-449		1

44	Effect of Nd Additions on the Mechanical Properties of Mg Binary Alloys. *Jom*, **2020**, 72, 517-525	2.1	1
43	Thermodynamic Description of Reactions between Mg and CaO **2016**, 67-72		1
42	Influences of SiC Particle Additions on the Grain Refinement of Mg□n Alloys. *Minerals, Metals and Materials Series*, **2019**, 331-338	0.3	1
41	Advances in Manufacturing Processes for Magnesium Alloys **2014**, 19-24		0
40	Effects of Y Additions on the Microstructures and Mechanical Behaviours of as Cast Mg□x Y□.5Zr Alloys. *Advanced Engineering Materials*,2101033	3.5	0
39	Influence of Lanthanum concentration on the Corrosion Behaviour of Binary Mg-La Alloys **2011**, 507-511		0
38	Axial fatigue testing of Ti□Al□V using an alternative specimen geometry fabricated by metal injection moulding. *Powder Metallurgy*, **2016**, 59, 344-349	1.9	0
37	The Use of Neutron and Synchrotron Research for Aerospace and Automotive Materials and Components **2017**, 327-364		
36	The Role of Second Phases on the Creep Behavior of As-Cast and Hot-Extruded Mg-Ca-Zr Alloys. *Jom*, **2019**, 71, 2227-2234	2.1	
35	Influences of Yttrium Content on Microstructure and Mechanical Properties of as-cast Mg□aY□r Alloys. *Minerals, Metals and Materials Series*, **2018**, 91-97	0.3	
34	Towards Active Corrosion Protection of Mg Alloys Using Corrosion Inhibition Approaches. *Minerals, Metals and Materials Series*, **2018**, 19-20	0.3	
33	In Situ Tensile Texture Analysis of a New Mg-RE Alloy. *Materials Science Forum*, **2016**, 879, 779-783	0.4	
32	Microstructure and Mechanical Properties of Ca Containing AZX310 Alloy Sheets Produced via Twin Roll Casting Technology **2016**, 383-387		
31	Role of Sic in Grain Refinement of Aluminum-Free Mg-Zn Alloys **2016**, 177-181		
30	Residual Stresses of the As-Cast Mg-xCa Alloys with Hot Sprues by Neutron Diffraction. *Advanced Materials Research*, **2014**, 996, 592-597	0.5	
29	Microstructure and Compression Creep Strength of the Newly Developed Magnesium Alloy DieMag422. *Advanced Materials Research*, **2014**, 1019, 177-183	0.5	
28	A New Magnesium Alloy System: TEXAS **2013**, 231-235		
27	Acoustic Emission Study of Mg-Mn Extruded Alloys with Prospective Mechanical Properties. *Materials Science Forum*, **2013**, 765, 537-542	0.4	

26	Compressive Strength and Hot Deformation Behavior of TX32 Magnesium Alloy with 0.4% Al and 0.4% Si Additions **2011**, 169-174	
25	Bolt Load Retention and Creep Response of AS41 Alloyed with 0.15 % Ca. *SAE International Journal of Materials and Manufacturing*, **2010**, 3, 202-210	1
24	In Situ Studies of Light Metals with Synchrotron Radiation and Neutrons. *Materials Science Forum*, **2011**, 690, 192-197	0.4
23	Influence of Rare Earth Addition on Texture Development during Static Recrystallization and Mechanical Behaviour of Magnesium Alloy Sheets. *Materials Science Forum*, **2011**, 702-703, 651-654	0.4
22	Modeling Bolt Load Retention of Ca Modified AS41 Using Compliance-Creep Method. *Materials Science Forum*, **2011**, 690, 278-281	0.4
21	Deformation Microstructures and Textures of Cast Mg-3Sn-2Ca Alloy under Uniaxial Hot Compression. *Applied Mechanics and Materials*, **2012**, 152-154, 322-325	0.3
20	Priority Programme of the German Research Foundation: 'Extending the Range of Applications for Magnesium Alloys'. *Materials Science Forum*, **2005**, 488-489, 905-908	0.4
19	High Speed Steel Sludge Waste as a Starting Material for Wear Resistance Components. *Key Engineering Materials*, **1996**, 127-131, 533-542	0.4
18	Influence of Third Alloying Element on Dislocation Slip and Twinning Activities in MgNd-Based Alloys. *Minerals, Metals and Materials Series*, **2022**, 97-103	0.3
17	Cold Formability of Extruded Magnesium Bands. *Minerals, Metals and Materials Series*, **2020**, 329-334	0.3
16	On the Influence of Solution and Ageing Treatments on the Microstructure of ZK40 Alloys Modified with Ca, Gd, Nd and Y Additions. *Praktische Metallographie/Practical Metallography*, **2018**, 55, 268-287	0.3
15	Influence of Microstructure Evolution During Twin-Roll Casting on the Properties of Magnesium Sheets. *Minerals, Metals and Materials Series*, **2019**, 1677-1686	0.3
14	Role of SiC in Grain Refinement of Aluminum-Free Mg-Zn Alloys **2016**, 177-181	
13	Elevated Temperature and Varied Load Response of AS41 at Bolted Joint **2016**, 511-516	
12	Solid Solution Strengthening in Mg-Gd Alloys **2016**, 135-139	
11	Microstructural and Mechanical Aspects of Reinforcement Welds for Lightweight Components Produced by Friction Hydro Pillar Processing **2016**, 499-504	
10	Formability of Magnesium Sheet ZE10 and AZ31 with Respect to Initial Texture **2016**, 357-362	
9	Thermodynamic Description of Reactions between Mg and CaO **2016**, 67-72	

8	Effect of the Zn Content on the Compression Behaviour of Mg5Nd(Zn): An In Situ Synchrotron Radiation Diffraction Study. *Minerals, Metals and Materials Series*, **2017**, 675-681	0.3
7	Microstructure and Mechanical Properties of High Pressure Die Cast AM50 Magnesium Alloy Containing Ce149-154	
6	Microstructure and Creep Properties of MEZ Magnesium Alloy Processed by Thixocasting383-389	
5	A new magnesium alloy system: TEXAS **2013**, 231-235	
4	Die Leichtbauwerkstoffe f□den Fahrzeugbau **2013**, 199-442	
3	Microstructural and Mechanical Aspects of Reinforcement Welds for Lightweight Components Produced by Friction Hydro Pillar Processing499-504	
2	Elevated Temperature and Varied Load Response of AS41 at Bolted Joint511-516	
1	Improving the Creep Resistance of Elektron21 by Adding AlN/Al Nanoparticles Using the High Shear Dispersion Technique. *Minerals, Metals and Materials Series*, **2021**, 57-69	0.3