Kwang Seon Shin

List of Publications by Year
in descending order

120	3,028	147801	197818
papers	citations	31 h-index	49 g-index

120	120	120	2136
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The relation between microstructure and corrosion behavior of Mgâ€“Yâ€“REâ€“Zr alloys. Journal of Alloys and Compounds, 2007, 431, 269-276.	5.5	134
2	Effect of pre-aging and Al addition on age-hardening and microstructure in Mg-6wt% Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 425-433.	5.6	132
3	Formability of AA5182/polypropylene/AA5182 sandwich sheets. Journal of Materials Processing Technology, 2003, 139, 1-7.	6.3	111
4	The role of Si and Ca on new wrought Mgâ€“Znâ€“Mn based alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 447, 35-43.	5.6	111
5	Formulation of corrosion rate of magnesium alloys using microstructural parameters. Journal of Magnesium and Alloys, 2020, 8, 134-149.	11.9	107
6	Microstructure and mechanical properties of Mg-HAP composites. Bulletin of Materials Science, 2010, 33, 43-47.	1.7	91
7	Hydroxyapatite coating on magnesium with MgF2 interlayer for enhanced corrosion resistance and biocompatibility. Journal of Materials Science: Materials in Medicine, 2011, 22, 2437-2447.	3.6	82
8	Corrosion behavior of Mgâ€“Mnâ€“Ca alloy: Influences of Al, Sn and Zn. Journal of Magnesium and Alloys, 2019, 7, 38-46.	11.9	77
9	Recent Progress and Development in Extrusion of Rare Earth Free Mg Alloys: A Review. Acta Metallurgica Sinica (English Letters), 2019, 32, 145-168.	2.9	74
10	Effect of texture and twinning on mechanical properties and corrosion behavior of an extruded biodegradable Mgâ€“4Zn alloy. Journal of Magnesium and Alloys, 2019, 7, 707-716.	11.9	65
11	The role of Mg2Si on the corrosion behavior of wrought Mgâ€“Znâ€“Mn alloy. Intermetallics, 2008, 16, 860-867.	3.9	63
12	Effect of calcium oxide on the corrosion behaviour of AZ91 magnesium alloy. Corrosion Science, 2012, 64, 263-271.	6.6	63
13	Comparative property study on extruded Mgâ€“HAP and ZM61â€“HAP composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6283-6288.	5.6	56
14	Multi-functional ceramic hybrid coatings on biodegradable AZ31 Mg implants: electrochemical, tribological and quantum chemical aspects for orthopaedic applications. RSC Advances, 2014, 4, 24272.	3.6	54
15	Effect of Ag content on the microstructure, tribological and corrosion properties of amorphous carbon coatings on 316L SS. Surface and Coatings Technology, 2014, 240, 128-136.	4.8	48
16	Corrosion protection performance of single and dual Plasma Electrolytic Oxidation (PEO) coating for aerospace applications. Materials Chemistry and Physics, 2015, 149-150, 480-486.	4.0	47
17	Effect of calcium addition on the corrosion behavior of Mgâ€“5Al alloy. Intermetallics, 2011, 19, 1831-1838.	3.9	46
18	Effects of Crystallographic Orientation on Corrosion Behavior of Magnesium Single Crystals. Jom, 2012, 64, 664-670.	1.9	46

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19	Effect of galvanic corrosion between precipitate and matrix on corrosion behavior of As-cast magnesium-aluminum alloys. Metals and Materials International, 2000, 6, 351-358.	0.2	45
20	Effect of Mg₁₇Al₁₂ Precipitate on Corrosion Behavior of AZ91D Magnesium Alloy. Materials Science Forum, 2003, 419-422, 851-856.	0.3	44
21	Stress corrosion cracking of new Mgâ€“Znâ€“Mn wrought alloys containing Si. Corrosion Science, 2008, 50, 1505-1517.	6.6	44
22	Effect of mischmetal on the corrosion properties of Mgâ€“5Al alloy. Corrosion Science, 2009, 51, 2942-2949.	6.6	43
23	Enhancing biocompatibility and corrosion resistance of Mg implants via surface treatments. Journal of Biomaterials Applications, 2012, 27, 469-476.	2.4	42
24	A simple one step cerium conversion coating formation on to magnesium alloy and electrochemical corrosion performance. Surface and Coatings Technology, 2018, 349, 757-772.	4.8	42
25	The relation between Mn additions, microstructure and corrosion behavior of new wrought Mg-5Al alloys. Materials Characterization, 2018, 145, 101-115.	4.4	42
26	Effect of microporosity on the tensile properties of AZ91 magnesium alloy. Acta Materialia, 2007, 55, 4293-4303.	7.9	40
27	The role of Ca microalloying on the microstructure and corrosion behavior of Mgâ€“6Znâ€“Mnâ€“(0.5â€“2)Si alloys. Corrosion Science, 2009, 51, 776-784.	6.6	40
28	Corrosion behaviour of AZ31 magnesium alloy containing various levels of strontium. Corrosion Science, 2018, 141, 117-126.	6.6	40
29	$$left{ {10ar 12} ight}$$ twinning behavior in magnesium single crystal. Metals and Materials International, 2013, 19, 999-1004.	3.4	39
30	Deformation behaviors of twin roll cast Mg-Zn-X-Ca alloys for enhanced room-temperature formability. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 329-339.	5.6	38
31	Microstructure, texture, mechanical properties and biodegradability of extruded Mgâ€“4Znâ€™xMn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 792, 139828.	5.6	37
32	Corrosion resistance of Mgâ€“5Alâ€“xSr alloys. Journal of Alloys and Compounds, 2011, 509, 4839-4847.	5.5	35
33	Improved corrosion resistant and strength of a magnesium alloy using multi-directional forging (MDF). International Journal of Advanced Manufacturing Technology, 2019, 105, 785-797.	3.0	33
34	Corrosion performance of high pressure die-cast Al-Si-Mg-Zn alloys in 3.5â€¯wt% NaCl solution. Journal of Alloys and Compounds, 2019, 783, 494-502.	5.5	33
35	Effects of Ca addition on the microstructures and mechanical properties of as-extruded Mgâ€“Bi alloys. Journal of Alloys and Compounds, 2020, 834, 155216.	5.5	33
36	Microstructure Evolution During Plasma Electrolytic Oxidation and Its Effects on the Electrochemical Properties of AZ91D Mg Alloy. Journal of the Electrochemical Society, 2011, 158, C266.	2.9	31

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37	Corrosion studies of high pressure die-cast Al-Si-Ni and Al-Si-Ni-Cu alloys. Journal of Alloys and Compounds, 2018, 749, 146-154.	5.5	31
38	A high-ductility extruded Mg-Bi-Ca alloy. Materials Letters, 2020, 261, 127066.	2.6	31
39	Review: Achieving enhanced plasticity of magnesium alloys below recrystallization temperature through various texture control methods. Journal of Materials Research and Technology, 2020, 9, 12604-12625.	5.8	31
40	Achieving a high corrosion resistant and high strength magnesium alloy using multi directional forging. Journal of Alloys and Compounds, 2021, 856, 158077.	5.5	30
41	Microstructural development of adiabatic shear bands formed by ballistic impact in a WELDALITE 049 alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 477-483.	2.2	29
42	Microstructural evolution and mechanical properties of binary Mgâ€“xBi (xâ€¯=â€¯2, 5, and 8 wt%) alloys. Journal of Magnesium and Alloys, 2020, 9, 983-983.	11.9	29
43	Effects of precipitate and dendrite arm spacing on tensile properties and fracture behavior of As-Cast magnesium-aluminum alloys. Metals and Materials International, 2003, 9, 21-27.	3.4	27
44	Role of Sn in microstructure and corrosion behavior of new wrought Mg-5Al alloy. Journal of Alloys and Compounds, 2019, 777, 835-849.	5.5	27
45	Effect of an Mg-rich matrix on the corrosion behavior of As-cast magnesium-aluminum alloys. Metals and Materials International, 2000, 6, 441-448.	0.2	25
46	Some particularities of the corrosion behaviour of Mgâ€“Znâ€“Mnâ€“Siâ€“Ca alloys in alkaline chloride solutions. Corrosion Science, 2010, 52, 2280-2290.	6.6	25
47	Improvement of corrosion resistance and mechanical properties of a magnesium alloy using screw rolling. Journal of Alloys and Compounds, 2020, 813, 152155.	5.5	24
48	Constitutive prediction of the defect susceptibility of tensile properties to microporosity variation in A356 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 599, 223-232.	5.6	23
49	The dynamic recrystallization and mechanical property responses during hot screw rolling on pre-aged ZM61 magnesium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 798, 140126.	5.6	22
50	Mechanical properties of aluminum/polypropylene/aluminum sandwich sheets. Metals and Materials International, 1999, 5, 613-618.	0.2	21
51	Semi-Solid Processing of Magnesium Alloys. Materials Transactions, 2003, 44, 558-561.	1.2	21
52	Microstructure and Mechanical Properties of Twin-Roll Strip Cast Mg Alloys. Materials Science Forum, 2007, 539-543, 119-126.	0.3	21
53	Effects of T6-treatment on the defect susceptibility of tensile strength to microporosity variation in low pressure die-cast A356 alloy. Metals and Materials International, 2015, 21, 842-849.	3.4	20
54	Influence of bicarbonate concentration on the conversion layer formation onto AZ31 magnesium alloy and its electrochemical corrosion behaviour in simulated body fluid. RSC Advances, 2016, 6, 49910-49922.	3.6	20

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55	Dynamic electrochemical impedance spectroscopy (DEIS) studies of AZ31 magnesium alloy in simulated body fluid solution. RSC Advances, 2014, 4, 27791-27795.	3.6	18
56	Fabrication and Electrochemical Corrosion Behavior of PEO Coatings on Strip-Cast AZ31Mg Alloy in 3.5% NaCl Solution. Industrial & Engineering Chemistry Research, 2014, 53, 9703-9713.	3.7	18
57	Improved stretch formability of AZ31 sheet via grain size control. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 56-61.	5.6	18
58	Crystal plasticity FEM study of twinning and slip in a Mg single crystal by Erichsen test. Acta Materialia, 2018, 156, 342-355.	7.9	18
59	High Temperature Deformation Behavior of AZ31 Mg Alloy. Materials Science Forum, 2005, 475-479, 2927-2930.	0.3	15
60	Effect of Gas Bubbling Filtration Treatment on Microporosity Variation in A356 Aluminium Alloy. Acta Metallurgica Sinica (English Letters), 2016, 29, 638-646.	2.9	15
61	Strain Hardening Behavior in Mgâ€“Al Alloys at Room Temperature. Advanced Engineering Materials, 2019, 21, 1801062.	3.5	14
62	Controlling the Microstructure and Texture Using Multidirectional Forging (MDF) to Develop a Low Corrosion Rate Mg Alloy. Corrosion, 2020, 76, 750-765.	1.1	14
63	Changes in microstructure and hardness of rheocast AZ91HP magnesium alloy with stirring conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 395, 226-232.	5.6	13
64	Low cycle fatigue properties and cyclic deformation behavior of as-extruded AZ31 magnesium alloy. Transactions of Nonferrous Metals Society of China, 2010, 20, s533-s539.	4.2	13
65	Effect of microstructure and load ratio on fatigue crack growth behavior of advanced Al-Cu-Li-Mg-Ag Alloys. Metals and Materials International, 1997, 3, 51-59.	0.2	12
66	Dependence of tensile ductility on damage evolution of eutectic Si-particles and pre-existing micro-voids in Al-Si casting alloy. Engineering Fracture Mechanics, 2017, 175, 339-356.	4.3	12
67	Quantitative models on corrosion fatigue crack growth rates in metals: Part I. Overview of quantitative crack growth models. Metals and Materials International, 1998, 4, 1-13.	0.2	11
68	Effect of mechanical alloying on combustion synthesis of MoSi₂. Journal of Materials Research, 2001, 16, 3060-3068.	2.6	11
69	Corrosion of New Wrought Magnesium Alloys. Materials Science Forum, 2005, 488-489, 839-844.	0.3	11
70	Effects of Precipitates and Alloying Element on Microstructure and High Temperature Properties of Mg-Al Alloys. Materials Science Forum, 2005, 475-479, 537-540.	0.3	11
71	Microstructures and mechanical properties of extruded and heat treated Mgâ€“6Znâ€“1Siâ€“0.5Mn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 553, 1-9.	5.6	11
72	Effects of chunk breakage and surface protective film on negative difference effect of magnesium alloys. Metals and Materials International, 2001, 7, 385-391.	3.4	10

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73	Analysis of the solidification and deformation behaviors of twin roll cast Mg-6Al-X alloys. Metals and Materials International, 2016, 22, 1055-1064.	3.4	10
74	Implementation of VPSC polycrystal model into rigid plastic finite element method and its application to Erichsen test of Mg alloy. Metals and Materials International, 2017, 23, 930-939.	3.4	10
75	On the dynamics of twinning in magnesium micropillars. Materials and Design, 2021, 203, 109563.	7.0	10
76	Corrosion and oxidation of alloys of the Mg-Y-Zr-REM system. Metal Science and Heat Treatment, 2006, 48, 518-523.	0.6	9
77	Applications of dynamic electrochemical impedance spectroscopy (DEIS) to evaluate protective coatings formed on AZ31 magnesium alloy. RSC Advances, 2015, 5, 29589-29593.	3.6	9
78	Protective Performance of Plasma-Enhanced Chemical Vapor-Deposited Ethyl Cyclohexane Coating on Magnesium Alloys. Journal of Materials Engineering and Performance, 2019, 28, 1360-1372.	2.5	9
79	Variant selection of primaryâ€“secondary extension twin pairs in magnesium: An analytical calculation study. Acta Materialia, 2021, 219, 117221.	7.9	9
80	Corrosion performance of high pressure die-cast Al-6Si-3Ni and Al-6Si-3Ni-2Cu alloys in aqueous NaCl solution. Transactions of Nonferrous Metals Society of China, 2018, 28, 2181-2189.	4.2	8
81	Investigation of the Microstructure Evolution and Deformation Mechanisms of a Mg-Zn-Zr-RE Twin-Roll-Cast Magnesium Sheet by In-Situ Experimental Techniques. Materials, 2018, 11, 200.	2.9	8
82	A Comprehensive Study of Dynamic Recrystallization Behavior of Mg Alloy with 3 wt.% Bi Addition. Metals, 2021, 11, 838.	2.3	8
83	Effects of Alloying Elements on Mechanical Properties of Mg-Al Alloys. Materials Science Forum, 2005, 488-489, 845-848.	0.3	7
84	Effect of geometric array of eutectic silicon particles and microscopic voids on the tensile behaviour of a cast aluminium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 599, 28-37.	5.6	7
85	Effects of tensile twinning on the stretch formability of Mg. Metals and Materials International, 2017, 23, 444-449.	3.4	7
86	Relation Between Zn Additions, Microstructure and Corrosion Behavior of New Wrought Mg-5Al Alloys. Metals and Materials International, 2021, 27, 1493-1505.	3.4	7
87	Environment-sensitive closure and fatigue crack propagation behavior of Al 2090. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2583-2590.	2.2	6
88	Nonstoichiometric precipitation in As-Cast Mg-xAl-lZn alloy. Metals and Materials International, 2000, 6, 497-503.	0.2	6
89	Development of High Performance Magnesium Alloys via Microstructure and Texture Control. Materials Science Forum, 0, 618-619, 249-252.	0.3	6
90	Fatigue crack propagation behavior of AZ31 Mg alloy in ultra-high vacuum. Metals and Materials International, 2011, 17, 397-402.	3.4	6

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91	Effect of Ca Addition on Corrosion Behavior of Wrought AM60 Magnesium Alloy in Alkaline Solutions. Metals, 2021, 11, 1172.	2.3	6
92	Effect of the pre-homogenization on the precipitation behaviors, mechanical and corrosion properties of as-extruded Mg Y binary alloys. Materials Characterization, 2021, 178, 111307.	4.4	6
93	Precipitation behavior of Mg17Al12 in monolithic and Al2O3 short fiber reinforced Mg-Al-Zn alloys. Metals and Materials International, 1997, 3, 211-215.	0.2	5
94	Quantitative models on corrosion fatigue crack growth rates in metals: Part II. application of fatigue crack growth rate modeling for nickel-based superalloys at elevated temperatures. Metals and Materials International, 1998, 4, 15-23.	0.2	5
95	Defect Susceptibility of Tensile Properties to Microporosity Variation in High-Pressure Die-Cast Aluminium Alloy Controlled by Gas Bubbling Flotation Treatment. International Journal of Metalcasting, 2019, 13, 880-889.	1.9	5
96	Effects of Ni and Cu Addition on Tensile Properties and Thermal Conductivity of High Pressure Die-cast Al-6Si Alloys. Journal of Korean Institute of Metals and Materials, 2020, 58, 217-226.	1.0	5
97	Enhancing the Mechanical Properties of AZ80 Alloy by Combining Extrusion and Three Pass Calibre Rolling. Metals, 2020, 10, 249.	2.3	5
98	Fluxless Recycling of Die-Cast AZ91 Magnesium Alloy Scrap. Materials Science Forum, 2005, 475-479, 541-544.	0.3	4
99	Microstructure and corrosion resistance of alloys of the Mg-Zn-Ag system. Metal Science and Heat Treatment, 2006, 48, 524-530.	0.6	4
100	Precipitation hardening through sacrificial phase in aluminumâ€“quasicrystal metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4845-4848.	5.6	4
101	Near- threshold Fatigue Crack Growth Behavior and Crack Closure of Natural Gas Pipeline Steels. Procedia Engineering, 2011, 10, 813-820.	1.2	4
102	Tensile behavior of rapidly solidified Al-Li-Zr and Al-Li-Cu-Mg-Zr alloys at 293 and 77 K. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 2254-2258.	2.2	3
103	Semi-Solid Processing of Magnesium Alloys. Materials Science Forum, 2003, 419-422, 611-616.	0.3	3
104	Fatigue Crack Propagation Behavior of AZ91D Magnesium Alloy. Materials Science Forum, 2003, 419-422, 75-80.	0.3	3
105	Effect of Applied Stress on Precipitation Behavior in AZ91D Magnesium Alloy. Materials Science Forum, 2003, 419-422, 285-290.	0.3	3
106	A comparable study of Mg98.15Y1Zn0.85 sheets fabricated by twin-roll casting and direct-chill casting and related annealing behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 815, 141316.	5.6	3
107	Closure-affected fatigue crack propagation behaviors of powder metallurgy-processed Al-Li alloys in various environments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 2097-2102.	2.2	2
108	Fabrication of Aluminum/Aluminum Nitride Composites by Reactive Mechanical Alloying. Materials Science Forum, 2007, 534-536, 181-184.	0.3	2

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109	Effects of Zn content and initial grain size on double peak basal textures of Mg-Zn-Al alloys. Metals and Materials International, 2017, 23, 745-755.	3.4	2
110	Research Activities on Magnesium Alloys at Seoul National University, Korea. , 2005, , 1034-1039.		1
111	Studies on the Influence of Chloride Ion Concentration on the Corrosion Behavior of ZSMX Magnesium Alloy. Advanced Materials Research, 0, 95, 47-50.	0.3	1
112	Hydrogen-assisted fracture of Al 8090. Journal of Materials Science Letters, 2000, 19, 447-450.	0.5	0
113	Continuous Casting of Magnesium Billets for Semi-Solid Processing. Materials Science Forum, 2005, 475-479, 517-520.	0.3	0
114	Processing and Characterization of Magnesium Alloys. Materials Science Forum, 2005, 488-489, 401-404.	0.3	0
115	Manufacturing and Application of Continuous Cast Semi-Solid Processed Magnesium Alloys. Materials Science Forum, 2005, 488-489, 397-400.	0.3	0
116	Fatigue Crack Growth Behavior in Girth Weld of Natural Gas Transmission Pipelines. Key Engineering Materials, 2007, 345-346, 303-306.	0.4	0
117	FATIGUE CRACK GROWTH BEHAVIOR FOR WELDED JOINT OF X80 PIPELINE STEEL. , 2008, , .		0
118	The Relation between Microstructure and Corrosion Behavior of New Mg-Al-X Alloys for Transportation Application. Advanced Materials Research, 0, 95, 43-46.	0.3	0
119	Corrosion Mechanisms of New Wrought Mg-Al Based Alloys Alloying with Mn, Zn and Sn. Materials Science Forum, 0, 941, 1880-1885.	0.3	0
120	Corrosion Behavior of Gravity Cast and High-Pressure Die-Cast AM60 Mg Alloys with Ca and Y Addition. Metals, 2022, 12, 495.	2.3	0