# Sung Hyuk Park

List of Publications by Year
in descending order

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|---|---|---|---|
| 96 papers | 3,982 citations | 126907 33 h-index | 133252 59 g-index |
| 97 all docs | 97 docs citations | 97 times ranked | 1408 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Comparative study of extrudability, microstructure, and mechanical properties of AZ80 and BA53 alloys. Journal of Magnesium and Alloys, 2023, 11, 249-258. | 11.9 | 21 |
| 2 | Acceleration of aging behavior and improvement of mechanical properties of extruded AZ80 alloy through (10â€“12) twinning. Journal of Magnesium and Alloys, 2023, 11, 671-683. | 11.9 | 15 |
| 3 | Effects of surface roughness on bending properties of rolled AZ31 alloy. Journal of Magnesium and Alloys, 2023, 11, 1224-1235. | 11.9 | 6 |
| 4 | Microstructural characteristics and low-cycle fatigue properties of AZ91 and AZ91â€“Caâ€“Y alloys extruded at different temperatures. Journal of Magnesium and Alloys, 2023, 11, 892-902. | 11.9 | 9 |
| 5 | Aging Hardening and Precipitation Characteristics of Extruded Mgâ€“9Alâ€“0.8Znâ€“0.2Mnâ€“0.3Caâ€“0.2Y Alloy. Metals and Materials International, 2023, 29, 381-389. | 3.4 | 5 |
| 6 | Difference in extrusion temperature dependences of microstructure and mechanical properties between extruded AZ61 and AZ91 alloys. Journal of Magnesium and Alloys, 2023, 11, 1683-1696. | 11.9 | 9 |
| 7 | Bending properties of extruded AZ91â€“0.9Caâ€“0.6Y alloy and their improvement through precompression and annealing. Journal of Magnesium and Alloys, 2022, 10, 2238-2251. | 11.9 | 9 |
| 8 | Variations in microstructure and bending formability of extruded Mgâ€“Alâ€“Znâ€“Caâ€“Yâ€“MM alloy with precompression and subsequent annealing treatment conditions. Journal of Magnesium and Alloys, 2022, 10, 2475-2490. | 11.9 | 11 |
| 9 | Effects of Sn addition on the microstructure and mechanical properties of extruded Mgâ€“Bi binary alloy. Journal of Magnesium and Alloys, 2022, 10, 850-861. | 11.9 | 14 |
| 10 | Improvement in tensile strength of extruded Mgâ€“5Bi alloy through addition of Sn and its underlying strengthening mechanisms. Journal of Magnesium and Alloys, 2022, 10, 3100-3112. | 11.9 | 12 |
| 11 | Extrusion limit diagram of AZ91â€“0.9Caâ€“0.6Yâ€“0.5MM alloy and effects of extrusion parameters on its microstructure and mechanical properties. Journal of Magnesium and Alloys, 2022, 10, 3447-3458. | 11.9 | 15 |
| 12 | Effects of homogenization temperature on microstructure and mechanical properties of high-speed-extruded Mgâ€“5Biâ€“3Al alloy. Journal of Magnesium and Alloys, 2022, 10, 2833-2846. | 11.9 | 24 |
| 13 | Automated picking-sorting system for assembling components in an IKEA chair based on the robotic vision system. International Journal of Computer Integrated Manufacturing, 2022, 35, 583-597. | 4.6 | 3 |
| 14 | Tensile and High-Cycle Fatigue Properties of Extruded AZ91â€“0.3Caâ€“0.2Y Alloy with Excellent Corrosion and Ignition Resistances. Metals and Materials International, 2022, 28, 385-396. | 3.4 | 9 |
| 15 | Low-cycle fatigue properties and unified fatigue life prediction equation of hot-rolled twin-roll-cast AZ31 sheets with different thicknesses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142349. | 5.6 | 4 |
| 16 | Bending-deformation-induced inhomogeneous aging behavior and accelerated precipitation kinetics of extruded AZ80 alloy. Journal of Alloys and Compounds, 2022, 918, 165613. | 5.5 | 2 |
| 17 | Inspecting Method for Defective Casting Products with Convolutional Neural Network (CNN). International Journal of Precision Engineering and Manufacturing - Green Technology, 2021, 8, 583-594. | 4.9 | 47 |
| 18 | Significant Improvement in Extrudability of Mgâ€“9Alâ€“0.8Znâ€“0.9Caâ€“0.6Y Alloy Through Mischmetal Addition. Metals and Materials International, 2021, 27, 514-521. | 3.4 | 18 |

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| 19 | Effects of initial texture on deformation behavior during cold rolling and static recrystallization during subsequent annealing of AZ31 alloy. Journal of Materials Science and Technology, 2021, 66, 139-149. | 10.7 | 31 |
| 20 | Influence of undissolved second-phase particles on dynamic recrystallization behavior of Mgâ€“7Snâ€“1Alâ€“1Zn alloy during low- and high-temperature extrusions. Journal of Materials Science and Technology, 2021, 71, 87-97. | 10.7 | 41 |
| 21 | Unusual relationship between extrusion temperature and tensile strength of extruded Mgâ€“Alâ€“Znâ€“Caâ€“Yâ€“MM alloy. Journal of Alloys and Compounds, 2021, 862, 158051. | 5.5 | 10 |
| 22 | Effects of Ti addition on the microstructure and mechanical properties of Alâ€“Znâ€“Mgâ€“Cuâ€“Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 801, 140437. | 5.6 | 29 |
| 23 | Effects of Extrusion Speed on the Microstructure and Mechanical Properties of Mgâ€“9Alâ€“0.8Znâ€“0.9Caâ€“0.6Yâ€“0.5MM Alloy. Metals and Materials International, 2021, 27, 530-537. | 3.4 | 24 |
| 24 | Effects of post-heat treatment on microstructure, tensile properties, and bending properties of extruded AZ80 alloy. Journal of Materials Research and Technology, 2021, 12, 1039-1050. | 5.8 | 16 |
| 25 | Microstructural evolution of rolled AZ31 alloy plate during in-plane compression and annealing: Effect of amount of compressive strain. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 826, 141974. | 5.6 | 4 |
| 26 | Comparative study of tensile and high-cycle fatigue properties of extruded AZ91 and AZ91â€“0.3Caâ€“0.2Y alloys. Journal of Materials Science and Technology, 2021, 93, 41-52. | 10.7 | 20 |
| 27 | Effect of initial microstructure on graphitization behavior of Feâ€“0.55Câ€“2.3Si steel. Journal of Materials Research and Technology, 2021, 15, 4529-4540. | 5.8 | 3 |
| 28 | Loading Direction Dependence of Yield-Point Phenomenon and Bauschinger Effect in API X70 Steel Sheet. Metals and Materials International, 2020, 26, 14-24. | 3.4 | 13 |
| 29 | Effect of Rolling and Coiling Temperatures on Microstructure and Mechanical Properties of Medium-Carbon Pipeline Steel. Metals and Materials International, 2020, 26, 1757-1765. | 3.4 | 10 |
| 30 | Improvement in Mechanical Properties of Rolled AZ31 Alloy Through Combined Addition of Ca and Gd. Metals and Materials International, 2020, 26, 1779-1785. | 3.4 | 13 |
| 31 | Significant improvement in the mechanical properties of an extruded Mgâ€“5Bi alloy through the addition of Al. Journal of Alloys and Compounds, 2020, 821, 153442. | 5.5 | 23 |
| 32 | Effects of B and Ti addition and heat treatment temperature on graphitization behavior of Fe-0.55C-2.3Si steel. Journal of Materials Research and Technology, 2020, 9, 11189-11200. | 5.8 | 3 |
| 33 | Effect of laser patterning on the material behaviour of 22MnB5 steel with induced local strengthening. International Journal of Advanced Manufacturing Technology, 2020, 107, 4983-4994. | 3.0 | 1 |
| 34 | Microstructural characteristics of AZ31 alloys rolled at room and cryogenic temperatures and their variation during annealing. Journal of Magnesium and Alloys, 2020, 8, 537-545. | 11.9 | 26 |
| 35 | Graphitization behavior of medium-carbon high-silicon steel and its dependence on temperature and grain size. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 785, 139392. | 5.6 | 8 |
| 36 | Evolution of Microstructure and Mechanical Properties of Graphitized Feâ€“0.55Câ€“2.3Si Steel During Quenching and Tempering Treatment. Metals and Materials International, 2020, 27, 3730. | 3.4 | 3 |

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| 37 | 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 |
| 38 | Novel Mgâ€“Biâ€“Al alloy with extraordinary extrudability and high strength. Journal of Alloys and Compounds, 2020, 843, 156026. | 5.5 | 37 |
| 39 | Fabrication of very-high-strength pure copper with fine grain structure through multi-axial diagonal forging. Materials Letters, 2020, 269, 127663. | 2.6 | 5 |
| 40 | Static recrystallization mechanism in cold-rolled magnesium alloy with off-basal texture based on quasi in situ EBSD observations. Journal of Alloys and Compounds, 2020, 844, 156185. | 5.5 | 17 |
| 41 | Variation in dynamic deformation behavior and resultant yield asymmetry of AZ80 alloy with extrusion temperature. Journal of Materials Science and Technology, 2020, 46, 225-236. | 10.7 | 41 |
| 42 | Influence of Bi addition on dynamic recrystallization and precipitation behaviors during hot extrusion of pure Mg. Journal of Materials Science and Technology, 2020, 44, 62-75. | 10.7 | 62 |
| 43 | Effect of Multi-Pass Caliber Rolling on Dilute Extruded Mg-Bi-Ca Alloy. Metals, 2020, 10, 332. | 2.3 | 3 |
| 44 | Microstructural evolution and grain growth mechanism of pre-twinned magnesium alloy during annealing. Journal of Magnesium and Alloys, 2020, 9, 1233-1233. | 11.9 | 50 |
| 45 | Influence of extrusion temperature on dynamic deformation behaviors and mechanical properties of Mg-8Al-0.5Zn-0.2Mn-0.3Ca-0.2Y alloy. Journal of Materials Research and Technology, 2019, 8, 5254-5270. | 5.8 | 43 |
| 46 | Variation in Crystallographic Orientation and Twinning Activation with Size of Individual Grains in Rolled Magnesium Alloy. Metals and Materials International, 2019, 25, 1541-1547. | 3.4 | 17 |
| 47 | Performance Test for Laminated-Type Prosthetic Foot with Composite Plates. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1777-1786. | 2.2 | 9 |
| 48 | Partial strengthening method for cold stamped B-pillar with minimal shape change. International Journal of Advanced Manufacturing Technology, 2019, 102, 4241-4255. | 3.0 | 6 |
| 49 | Microstructural characteristics of magnesium alloy sheets subjected to high-speed rolling and their rolling temperature dependence. Journal of Materials Research and Technology, 2019, 8, 3167-3174. | 5.8 | 18 |
| 50 | Microstructural evolution of twin-roll-cast Alâ€“Mn alloy during cold rolling and subsequent annealing: Effect of number of cold-rolling passes. Journal of Alloys and Compounds, 2019, 797, 504-513. | 5.5 | 7 |
| 51 | Twinning and slip behaviors and microstructural evolutions of extruded Mg-1Gd alloy with rare-earth texture during tensile deformation. Journal of Alloys and Compounds, 2019, 791, 700-710. | 5.5 | 76 |
| 52 | Grain size effect on twinning and annealing behaviors of rolled magnesium alloy with bimodal structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 38-45. | 5.6 | 31 |
| 53 | Improvement in bending formability of rolled magnesium alloy through precompression and subsequent annealing. Journal of Alloys and Compounds, 2019, 787, 519-526. | 5.5 | 33 |
| 54 | Image Processing Algorithm for Real-Time Crack Inspection in Hole Expansion Test. International Journal of Precision Engineering and Manufacturing, 2019, 20, 1139-1148. | 2.2 | 12 |

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| 55 | Texture tailoring and bendability improvement of rolled AZ31 alloy using {10â€“12} twinning: The effect of precompression levels. Journal of Magnesium and Alloys, 2019, 7, 648-660. | 11.9 | 38 |
| 56 | High-Strength AZ91 Alloy Fabricated by Rapidly Solidified Flaky Powder Metallurgy and Hot Extrusion. Metals and Materials International, 2019, 25, 372-380. | 3.4 | 22 |
| 57 | 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 |
| 58 | Dynamic deformation behavior and microstructural evolution during high-speed rolling of Mg alloy having non-basal texture. Journal of Materials Science and Technology, 2019, 35, 473-482. | 10.7 | 27 |
| 59 | Hot Rolling of Flame Retardant Magnesium and Aluminum Alloys to Produce a Cladding Plate. International Journal of Precision Engineering and Manufacturing, 2018, 19, 521-527. | 2.2 | 2 |
| 60 | Controlling the microstructure and improving the tensile properties of extruded Mg-Sn-Zn alloy through Al addition. Journal of Alloys and Compounds, 2018, 751, 1-11. | 5.5 | 40 |
| 61 | Microstructural evolution and improvement in mechanical properties of extruded AZ31 alloy by combined addition of Ca and Y. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 725, 309-318. | 5.6 | 48 |
| 62 | Microstructure and mechanical properties of non-flammable Mg-8Al-0.3Zn-0.1Mn-0.3Ca-0.2Y alloy subjected to low-temperature, low-speed extrusion. Journal of Alloys and Compounds, 2018, 739, 69-76. | 5.5 | 38 |
| 63 | Effects of homogenization time on aging behavior and mechanical properties of AZ91 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 714, 49-58. | 5.6 | 37 |
| 64 | Grain-Refined AZ92 Alloy with Superior Strength and Ductility. Metals and Materials International, 2018, 24, 730-737. | 3.4 | 7 |
| 65 | Dynamic recrystallization behavior and microstructural evolution of Mg alloy AZ31 through high-speed rolling. Journal of Materials Science and Technology, 2018, 34, 1747-1755. | 10.7 | 59 |
| 66 | Effects of {10â€“12} Twins on Dynamic Torsional Properties of Extruded AZ31 Magnesium Alloy. Metals and Materials International, 2018, 24, 283-289. | 3.4 | 4 |
| 67 | Accelerated precipitation behavior of cast Mg-Al-Zn alloy by grain refinement. Journal of Materials Science and Technology, 2018, 34, 265-276. | 10.7 | 54 |
| 68 | Stripping failure of punching pin in GPa-grade steels. International Journal of Advanced Manufacturing Technology, 2018, 94, 73-83. | 3.0 | 13 |
| 69 | Underlying mechanisms of drastic reduction in yield asymmetry of extruded Mg-Sn-Zn alloy by Al addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 285-290. | 5.6 | 19 |
| 70 | Improvement of mechanical properties and reduction of yield asymmetry of extruded Mg-Al-Zn alloy through Sn addition. Journal of Alloys and Compounds, 2018, 766, 748-758. | 5.5 | 35 |
| 71 | Relationship between mechanical properties and high-cycle fatigue strength of medium-carbon steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 690, 185-194. | 5.6 | 22 |
| 72 | Microstructure and mechanical properties of an extruded Mg-8Bi-1Al-1Zn (wt%) alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 690, 80-87. | 5.6 | 49 |

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| 73 | Anisotropic twinning and slip behaviors and their relative activities in rolled alpha-phase titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 54-62. | 5.6 | 28 |
| 74 | Evolution of high-cycle fatigue behavior of extruded AZ91 alloy by artificial cooling during extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 620-628. | 5.6 | 13 |
| 75 | Effects of cold pre-forging on microstructure and tensile properties of extruded AZ80 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 708, 405-410. | 5.6 | 29 |
| 76 | Improvement in extrudability and mechanical properties of AZ91 alloy through extrusion with artificial cooling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 703, 1-8. | 5.6 | 51 |
| 77 | Effects of drawing strain and post-annealing conditions on microstructural evolution and tensile properties of medium- and high-carbon steels. Metals and Materials International, 2017, 23, 1176-1187. | 3.4 | 2 |
| 78 | Microstructural evolution of extruded AZ31 alloy with bimodal structure during compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 702, 1-9. | 5.6 | 13 |
| 79 | Effect of initial twins on the stress-controlled fatigue behavior of rolled magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 680, 214-220. | 5.6 | 19 |
| 80 | Microstructure and texture variation with Gd addition in extruded magnesium. Journal of Alloys and Compounds, 2017, 695, 344-350. | 5.5 | 64 |
| 81 | Effect of billet diameter on hot extrusion behavior of Mgâ€“Alâ€“Zn alloys and its influence on microstructure and mechanical properties. Journal of Alloys and Compounds, 2017, 690, 417-423. | 5.5 | 43 |
| 82 | Influence of Ce addition and homogenization temperature on microstructural evolution and mechanical properties of extruded Mg-Sn-Al-Zn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 676, 232-240. | 5.6 | 25 |
| 83 | High-speed indirect extrusion of Mgâ€“Snâ€“Alâ€“Zn alloy and its influence on microstructure and mechanical properties. Journal of Alloys and Compounds, 2016, 667, 170-177. | 5.5 | 104 |
| 84 | Influence of Sn addition on the microstructure and mechanical properties of extruded Mgâ€“8Alâ€“2Zn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 128-135. | 5.6 | 63 |
| 85 | Improving the tensile strength of Mgâ€“7Snâ€“1Alâ€“1Zn alloy through artificial cooling during extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 625, 369-373. | 5.6 | 18 |
| 86 | Effect of Initial Grain Size on Microstructure and Mechanical Properties of Extruded Mg-9Al-0.6Zn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5482-5488. | 2.2 | 34 |
| 87 | Improved mechanical properties of Mgâ€“7.6Alâ€“0.4Zn alloy through aging prior to extrusion. Scripta Materialia, 2014, 93, 8-11. | 5.2 | 109 |
| 88 | Effects of extrusion parameters on the microstructure and mechanical properties of Mgâ€“Znâ€“(Mn)â€“Ce/Gd alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 598, 396-406. | 5.6 | 117 |
| 89 | Prediction of grain size and yield strength of Mg-7Sn-1Al-1Zn alloys extruded at various temperatures and speeds. Metals and Materials International, 2014, 20, 291-296. | 3.4 | 102 |
| 90 | Development of extraordinary high-strength Mgâ€“8Alâ€“0.5Zn alloy via a low temperature and slow speed extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 610, 445-449. | 5.6 | 162 |

| # | Article | IF | Citations |
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| 91 | Effects of extrusion speed on the microstructure and mechanical properties of ZK60 alloys with and without 1wt% cerium addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 583, 25-35. | 5.6 | 87 |
| 92 | Improving the mechanical properties of extruded Mgâ€“3Alâ€“1Zn alloy by cold pre-forging. Scripta Materialia, 2013, 69, 250-253. | 5.2 | 169 |
| 93 | Effects of cerium addition on the microstructure, mechanical properties and hot workability of ZK60 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 798-807. | 5.6 | 220 |
| 94 | Microstructural evolution of indirect-extruded ZK60 alloy by adding Ce. Journal of Alloys and Compounds, 2012, 545, 139-143. | 5.5 | 65 |
| 95 | Activation mode dependent {10â¯12} twinning characteristics in a polycrystalline magnesium alloy. Scripta Materialia, 2010, 62, 202-205. | 5.2 | 166 |
| 96 | Role of {10â€“12} twinning characteristics in the deformation behavior of a polycrystalline magnesium alloy. Acta Materialia, 2010, 58, 5873-5885. | 7.9 | 680 |