# Iman El-Mahallawi

List of Publications by Year
in descending order



| 68 | 1,048 | 394421 | 454955 |
|---|---|---|---|
| papers | citations | 19 h-index | 30 g-index |

| 71 | 71 | 71 | 866 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Improvements in mechanical and stress corrosion cracking properties in Al-alloy 7075 via retrogression and reaging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 485, 468-475. | 5.6 | 127 |
| 2 | Nanoreinforced Cast Al-Si Alloys with Al2O3, TiO2 and ZrO2 Nanoparticles. Metals, 2015, 5, 802-821. | 2.3 | 71 |
| 3 | Influence of friction stir processing on the microstructure and mechanical properties of a compocast AA2024-Al 2 O 3 nanocomposite. Materials and Design, 2016, 106, 273-284. | 7.0 | 66 |
| 4 | Influence of Al2O3 nano-dispersions on microstructure features and mechanical properties of cast and T6 heat-treated Al Si hypoeutectic Alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 76-87. | 5.6 | 65 |
| 5 | Correlation between the degree of sensitization and stress corrosion cracking susceptibility of type 304H stainless steel. Corrosion Science, 2009, 51, 203-208. | 6.6 | 63 |
| 6 | Effect of FSP parameters and tool geometry on microstructure, hardness, and wear properties of AA7075 with and without reinforcing B4C ceramic particles. International Journal of Advanced Manufacturing Technology, 2019, 102, 3945-3961. | 3.0 | 42 |
| 7 | Control of Ca addition for improved cleanness of low C, Al killed steel. Ironmaking and Steelmaking, 2009, 36, 432-441. | 2.1 | 41 |
| 8 | Thermal aging of 16Cr â€“ 5Ni â€“ 1Mo stainless steel Part 1 â€“ Microstructural analysis. Materials Science and Technology, 2004, 20, 363-369. | 1.6 | 40 |
| 9 | Failure investigation of secondary super-heater tubes in a power boiler. Engineering Failure Analysis, 2009, 16, 433-448. | 4.0 | 38 |
| 10 | Effect of manganese, silicon and chromium additions on microstructure and wear characteristics of grey cast iron for sugar industries applications. Wear, 2017, 390-391, 113-124. | 3.1 | 35 |
| 11 | Evaluation of effect of chromium on wear performance of high manganese steel. Materials Science and Technology, 2001, 17, 1385-1390. | 1.6 | 33 |
| 12 | Effects of thermal aging on microstructure and mechanical properties of duplex stainless steel weldments. Materials Science and Technology, 2004, 20, 375-381. | 1.6 | 29 |
| 13 | Hardness and Wear Behaviour of Semi-Solid Cast A390 Alloy Reinforced with Al2O3 and TiO2 Nanoparticles. Arabian Journal for Science and Engineering, 2014, 39, 5171-5184. | 1.1 | 28 |
| 14 | Effect of Pouring Temperature and Water Cooling on the Thixotropic Semi-solid Microstructure of A319 Aluminium Cast Alloy. Materials Research, 2015, 18, 170-176. | 1.3 | 27 |
| 15 | Influence of nanodispersions on strengthâ€“ductility properties of semisolid cast A356 Al alloy. Materials Science and Technology, 2010, 26, 1226-1231. | 1.6 | 26 |
| 16 | Influence of heat input and post-weld heat treatment on boiler steel P91 (9Crâ€“1Moâ€“Vâ€“Nb) weld joints Part 2 â€“ Mechanical properties. International Heat Treatment and Surface Engineering, 2013, 7, 32-37. | 0.2 | 26 |
| 17 | Microstructure, Hardness and Impact Toughness of Heat-Treated Nanodispersed Surface and Friction Stir-Processed Aluminum Alloy AA7075. Journal of Materials Engineering and Performance, 2016, 25, 5087-5101. | 2.5 | 26 |
| 18 | Influence of process parameters in electrical discharge machining on H13 die steel. Heliyon, 2019, 5, e01813. | 3.2 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Optical Properties and Microstructure of TiNxOy and TiN Thin Films before and after Annealing at Different Conditions. Coatings, 2019, 9, 22. | 2.6 | 23 |
| 20 | Influence of heat input and post-weld heat treatment on boiler steel P91 (9Crâ€“1Moâ€“Vâ€“Nb) weld joints Part 1 â€“ Microstructure. International Heat Treatment and Surface Engineering, 2013, 7, 23-31. | 0.2 | 19 |
| 21 | Thermal aging of 16Cr â€“ 5Ni â€“ 1Mo stainless steel Part 2 â€“ Mechanical property characterisation. Materials Science and Technology, 2004, 20, 370-374. | 1.6 | 16 |
| 22 | Low-temperature thermoelectric performance of novel polyaniline/iron oxide composites with superior Seebeck coefficient. Applied Physics A: Materials Science and Processing, 2019, 125, 1. | 2.3 | 14 |
| 23 | Synthesis and Characterization of New Cast A356(Al2O3)P Metal Matrix Nano-Composites. , 2008, , . | | 10 |
| 24 | Simulation of EAF refining stage. Ain Shams Engineering Journal, 2018, 9, 2781-2793. | 6.1 | 9 |
| 25 | Structure and thermoelectric behavior of polyaniline-based/ CNT-composite. Current Applied Physics, 2022, 36, 88-92. | 2.4 | 9 |
| 26 | Microstructure and corrosion properties of nitrogen stainless steel 316L produced by hipping. Powder Metallurgy, 2004, 47, 43-48. | 1.7 | 8 |
| 27 | Comparison of austempering transformation in spheroidal graphite and compacted graphite cast irons. International Journal of Cast Metals Research, 2006, 19, 151-155. | 1.0 | 7 |
| 28 | Current research in Egypt on optimisation of combined mechanical strength and corrosion behaviour of steel rebar. International Heat Treatment and Surface Engineering, 2007, 1, 126-137. | 0.2 | 7 |
| 29 | Effect of tempcore processing on mitigating problems of tramp elements in low c steel produced from recycled material. Journal of Iron and Steel Research International, 2015, 22, 582-589. | 2.8 | 7 |
| 30 | Mechanical Properties and Wear Resistance of Semisolid Cast Al2O3 Nano Reinforced Hypo and Hyper-eutectic Alâ€“Si Composites. Advanced Structured Materials, 2017, , 13-30. | 0.5 | 7 |
| 31 | Computational Simulation Model for Metallurgical Effects during EAF Refining Stage: Waiting and Arcing Time. ISIJ International, 2018, 58, 1669-1678. | 1.4 | 7 |
| 32 | Effects of Process Parameters on the Machining Process in Die-Sinking EDM of Alloyed Tool Steel. Advanced Structured Materials, 2020, , 215-233. | 0.5 | 7 |
| 33 | Influence of graphite nodularity on microstructure and processing window of 1.5% Niâ€“0.3% Mo austempered cast iron. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 435-436, 564-572. | 5.6 | 6 |
| 34 | Effect of prolonged temperature exposure on pitting corrosion of duplex stainless steel weld joints. Ain Shams Engineering Journal, 2018, 9, 1407-1415. | 6.1 | 6 |
| 35 | Facile synthesis of hybrid electrode materials based on RGO.Ag/Co for an efficient symmetric supercapacitor. Journal of Electroanalytical Chemistry, 2021, 886, 115114. | 3.8 | 6 |
| 36 | The Effect of Process Parameters on the Mechanical Properties of A356 Al-Alloy/ZrO<sub>2</sub> Nanocomposite. Journal of Nano Research, 2016, 38, 1-8. | 0.8 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Identification of copper precipitates in scrap based recycled low carbon rebar steel. Materials and Design, 2017, 120, 157-169. | 7.0 | 5 |
| 38 | Improvement of Mechanical Properties and Structure Modifications of Low Carbon Steel by Inoculations with Nano-Size Silicon Nitride. Journal of Nano Research, 0, 47, 24-32. | 0.8 | 5 |
| 39 | Morphology and identification of carbides in aged W-alloyed austenitic stainless steel. Materials Letters, 2001, 51, 375-384. | 2.6 | 4 |
| 40 | Study of Solidification Thermal Analysis, Microstructure and Mechanical Characteristics of A384 Cast Alloy Treated with Rare Earth (Sm, Tb, Ce and La) Elements. Journal of Materials Engineering and Performance, 2021, 30, 4466-4483. | 2.5 | 4 |
| 41 | Effect of thermal aging on pitting corrosion resistance of 16Cr â€“ 5Ni â€“ 1Mo precipitation hardening stainless steel. Materials Science and Technology, 2004, 20, 1573-1577. | 1.6 | 3 |
| 42 | Thermoelectric Behaviour of Polyvinyl Acetate/CNT Composites. Minerals, Metals and Materials Series, 2017, , 287-294. | 0.4 | 3 |
| 43 | Effect of Heat Treatment on Friction-Stir-Processed Nanodispersed AA7075 and 2024 Al Alloys. Minerals, Metals and Materials Series, 2017, , 297-309. | 0.4 | 3 |
| 44 | Surface Treatment of AISI M2 Tool Steel by Laser Melting. Key Engineering Materials, 0, 786, 128-133. | 0.4 | 3 |
| 45 | Optical properties and microstructure of TiN thin films before and after annealing. Materials Express, 2019, 9, 15-26. | 0.5 | 3 |
| 46 | Production of AlSi12CuNiMg/Al2O3 Micro/Nanodispersed Surface Composites Using Friction Stir Processing for Automotive Applications. Minerals, Metals and Materials Series, 2019, , 233-242. | 0.4 | 3 |
| 47 | Fabrication of Supercapacitor Based on Reduced Graphene Oxide for Energy Storage Applications. , 2019, , . | | 3 |
| 48 | Refinement effect of Zirconium and Samarium on Al-4Mg cast alloy. Materials Research Express, 2021, 8, 046522. | 1.6 | 3 |
| 49 | Thermomechanical processing of 42CrMoS4 steel. International Heat Treatment and Surface Engineering, 2010, 4, 87-92. | 0.2 | 2 |
| 50 | Correlating cutting efficiency and debris retention of endodontic files to their design features using AutoCAD measurements. Engineering Failure Analysis, 2011, 18, 1775-1783. | 4.0 | 2 |
| 51 | Empirical Model for Predicting Process Parameters during Electric Arc Furnace Refining Stage Based on Real Measurements. Steel Research International, 2019, 90, 1900208. | 1.8 | 2 |
| 52 | Comparison of Solar-Selective Absorbance Properties of TiN, TiNxOy,Âand TiO2 Thin Films. Minerals, Metals and Materials Series, 2019, , 253-263. | 0.4 | 2 |
| 53 | DOC-Stabilized PVAc/MWCNTs Composites for Higher Thermoelectric Performance. Minerals, Metals and Materials Series, 2019, , 283-291. | 0.4 | 2 |
| 54 | Recycling of Metal Products. Green Energy and Technology, 2013, , 29-65. | 0.6 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Thermal Analysis and Microstructure of Al-12%Si-2.5%Cu-0.4%Mg Cast Alloy with Ce and/or La Rare Earth Metals. Minerals, Metals and Materials Series, 2020, , 1056-1062. | 0.4 | 2 |
| 56 | Optimising heat treatment requirements for improved toughness of V containing 3%NiCrMo steel. International Heat Treatment and Surface Engineering, 2010, 4, 81-86. | 0.2 | 1 |
| 57 | Welding-associated failures in power boilers. , 2016, , 387-410. | | 1 |
| 58 | Effect of Nano-Graphite Dispersion on the Thermal Solar Selective Absorbance of Polymeric-Based Coating Material. Minerals, Metals and Materials Series, 2018, , 523-533. | 0.4 | 1 |
| 59 | Effect of Gas Dilution Ratios and Substrate Temperature on the Structural Transition of a-Si/Î¼c-Si Thin-Film Solar Cell Using PECVD. Key Engineering Materials, 2018, 786, 373-383. | 0.4 | 1 |
| 60 | Role of silver nanoparticles deposition temperature on a-Si/Î¼c-Si thin-film solar cell light absorption. Materials Research Express, 2018, 5, 076401. | 1.6 | 1 |
| 61 | Structural, Optical and Microstructural Properties of TiNi Thin Films before and after Oxidation. Key Engineering Materials, 2020, 835, 193-199. | 0.4 | 1 |
| 62 | Options for Nanoreinforced Cast Alâ€“Si Alloys with TiO2 Nanoparticles. Advanced Structured Materials, 2017, , 1-12. | 0.5 | 1 |
| 63 | Centrifugal Casting of Alâ€“Si Scrap. Minerals, Metals and Materials Series, 2017, , 1131-1137. | 0.4 | 1 |
| 64 | On the influence of nanoparticles as addition to the A356 aluminumâ€alloy: Is it acting as a refining or strengthening mechanism?. Materialwissenschaft Und Werkstofftechnik, 2020, 51, 594-602. | 0.9 | 1 |
| 65 | Effective Nanoparticles Feeding Treatment in Casting of A356/ZrO2 Nano-reinforced Composite. Minerals, Metals and Materials Series, 2018, , 1105-1111. | 0.4 | 0 |
| 66 | Design and Manufacturing of Polyaniline- based Thermoelectric Generators. , 2019, , . | | 0 |
| 67 | Sustainable Materials for Energy Conversion. , 2020, , 867-879. | | 0 |
| 68 | Effect of Nano-Reinforcement on Properties of Cast Mg-Al Alloy AZ91. , 2014, , 471-476. | | 0 |