Ahmad T Mayyas

List of Publications by Year in descending order

59 papers	2,449 citations	304602 22 h-index	214721 47 g-index
61 all docs	61 docs citations	61 times ranked	2503 citing authors

#	Article	IF	Citations
1	Design for sustainability in automotive industry: A comprehensive review. Renewable and Sustainable Energy Reviews, 2012, 16, 1845-1862.	8.2	322
2	Thermo-mechanical behaviors of the expanded graphite-phase change material matrix used for thermal management of Li-ion battery packs. Journal of Materials Processing Technology, 2010, 210, 174-179.	3.1	163
3	The case for recycling: Overview and challenges in the material supply chain for automotive li-ion batteries. Sustainable Materials and Technologies, 2019, 19, e00087.	1.7	145
4	Using Quality Function Deployment and Analytical Hierarchy Process for material selection of Body-In-White. Materials & Design, 2011, 32, 2771-2782.	5.1	138
5	Life cycle assessment-based selection for a sustainable lightweight body-in-white design. Energy, 2012, 39, 412-425.	4.5	138
6	Prediction of density, porosity and hardness in aluminumâ€“copper-based composite materials using artificial neural network. Journal of Materials Processing Technology, 2009, 209, 894-899.	3.1	137
7	Wear behavior of Alâ€“Mgâ€“Cuâ€“based composites containing SiC particles. Tribology International, 2009, 42, 1230-1238.	3.0	129
8	Economics and Challenges of Li-Ion Battery Recycling from End-of-Life Vehicles. Procedia Manufacturing, 2019, 33, 272-279.	1.9	100
9	Vehicular thermal comfort models; a comprehensive review. Applied Thermal Engineering, 2011, 31, 995-1002.	3.0	99
10	Hydrogen as a long-term, large-scale energy storage solution when coupled with renewable energy sources or grids with dynamic electricity pricing schemes. International Journal of Hydrogen Energy, 2020, 45, 16311-16325.	3.8	85
11	Prediction of tribological behavior of aluminumâ€“copper based composite using artificial neural network. Journal of Alloys and Compounds, 2009, 470, 584-588.	2.8	74
12	Vehicle's lightweight design vs. electrification from life cycle assessment perspective. Journal of Cleaner Production, 2017, 167, 687-701.	4.6	69
13	Quantifiable measures of sustainability: a case study of materials selection forÂeco-lightweight auto-bodies. Journal of Cleaner Production, 2013, 40, 177-189.	4.6	63
14	Artificial neural network modeling of the drilling process of self-lubricated aluminum/alumina/graphite hybrid composites synthesized by powder metallurgy technique. Journal of Alloys and Compounds, 2009, 478, 559-565.	2.8	60
15	Manufacturing competitiveness analysis for hydrogen refueling stations. International Journal of Hydrogen Energy, 2019, 44, 9121-9142.	3.8	57
16	Wear behavior of Alâ€“Cu and Alâ€“Cu/SiC components produced by powder metallurgy. Journal of Materials Science, 2008, 43, 5368-5375.	1.7	50
17	Comprehensive Review on Concept and Recycling Evolution of Lithium-Ion Batteries (LIBs). Energy & Fuels, 2021, 35, 18257-18284.	2.5	49
18	Production energy optimization using low dynamic programming, a decision support tool for sustainable manufacturing. Journal of Cleaner Production, 2015, 105, 178-183.	4.6	45

#	Article	IF	Citations
19	Techno-economic analysis of energy storage systems using reversible fuel cells and rechargeable batteries in green buildings. Energy, 2022, 247, 123466.	4.5	39
20	A Direct Manufacturing Cost Model for Solidâ€Oxide Fuel Cell Stacks. Fuel Cells, 2017, 17, 825-842.	1.5	30
21	Economics of the Li-ion batteries and reversible fuel cells as energy storage systems when coupled with dynamic electricity pricing schemes. Energy, 2022, 239, 121941.	4.5	28
22	Emerging Manufacturing Technologies for Fuel Cells and Electrolyzers. Procedia Manufacturing, 2019, 33, 508-515.	1.9	24
23	Principal Component Analysis-Based Image Fusion Routine with Application to Automotive Stamping Split Detection. Research in Nondestructive Evaluation, 2011, 22, 76-91.	0.5	23
24	Eco-material selection using fuzzy TOPSIS method. International Journal of Sustainable Engineering, 0, , 1-13.	1.9	22
25	Efficient and cost-effective hybrid composite materials based on thermoplastic polymer and recycled graphite. Chemical Engineering Journal, 2022, 430, 132667.	6.6	19
26	Techno-economic analysis of the Li-ion batteries and reversible fuel cells as energy-storage systems used in green and energy-efficient buildings. Clean Energy, 2021, 5, 273-287.	1.5	17
27	Design considerations of flat patterns analysis techniques when applied for folding 3-D sheet metal geometries. Journal of Intelligent Manufacturing, 2014, 25, 109-128.	4.4	16
28	Effects of latent damage of recrystallization on lead free solder joints. Microelectronics Reliability, 2014, 54, 447-456.	0.9	16
29	Incorporating quality function deployment and analytical hierarchy process in a knowledge-based system for automotive production line design. International Journal of Computer Integrated Manufacturing, 2013, 26, 839-856.	2.9	15
30	Recycling of Electrode Materials from Spent Lithium-Ion Batteries to Develop Graphene Nanosheets and Grapheneâ€“Molybdenum Disulfide Nanohybrid: Environmental Benefits, Analysis of Supercapacitor Performance, and Influence of Density Functional Theory Calculations. Energy & Fuels, 2022, 36, 2159-2170.	2.5	14
31	Sustainable lightweight vehicle design: a case study of eco-material selection for body-in-white. International Journal of Sustainable Manufacturing, 2012, 2, 317.	0.3	13
32	Cooling strategy for effective automotive power trains: 3D thermal modeling and multi-faceted approach for integrating thermoelectric modules into proton exchange membrane fuel cell stack. International Journal of Hydrogen Energy, 2014, 39, 17327-17335.	3.8	13
33	Modeling Blanking Process Using Multiple Regression Analysis and Artificial Neural Networks. Journal of Materials Engineering and Performance, 2012, 21, 1611-1619.	1.2	12
34	Design Analysis for Origami-Based Folded Sheet Metal Parts. SAE International Journal of Materials and Manufacturing, 0, 7, 488-498.	0.3	12
35	Mathematical Model for the Placement of Hydrogen Refueling Stations to Support Future Fuel Cell Trucks. IEEE Access, 2021, 9, 148118-148131.	2.6	11
36	Comprehensive thermal modeling of a power-split hybrid powertrain using battery cell model. Journal of Power Sources, 2011, 196, 6588-6594.	4.0	10

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37	Thermal modeling of an on-board nickel-metal hydride pack in a power-split hybrid configuration using a cell-based resistance-capacitance, electro-thermal model. International Journal of Energy Research, 2013, 37, 331-346.	2.2	9
38	Recrystallization of Lead Free Solder Joints: Confounding the Interpretation of Accelerated Thermal Cycling Results?. , 2009, , .		9
39	IR Thermographic Analysis of 3D Printed CFRP Reference Samples with Back-Drilled and Embedded Defects. Journal of Nondestructive Evaluation, 2018, 37, 1.	1.1	8
40	Modeling the Drilling Process of Aluminum Composites Using Multiple Regression Analysis and Artificial Neural Networks. Journal of Minerals and Materials Characterization and Engineering, 2012, 11, 1039-1049.	0.1	8
41	Knowledge-based systems in sheet metal stamping: a survey. International Journal of Computer Integrated Manufacturing, 2014, 27, 707-718.	2.9	7
42	A dataâ€driven modeling and analysis approach to test the resilience of green buildings to uncertainty in operation patterns. Energy Science and Engineering, 2020, 8, 4250-4269.	1.9	7
43	Eco-material selection assisted with decision-making tools, guided by product's attributes; functionality and manufacturability. International Journal of Materials and Structural Integrity, 2012, 6, 190.	0.1	6
44	The Effect of Time, Percent of Copper and Nickel on Naturally Aged Al-Cu-Ni Cast Alloys. Journal of Minerals and Materials Characterization and Engineering, 2012, 11, 117-131.	0.1	6
45	Effect of Copper and Silicon Carbide Content on the Corrosion Resistance of Al-Mg Alloys in Acidic and Alkaline Solutions. Journal of Minerals and Materials Characterization and Engineering, 2012, 11, 335-352.	0.1	6
46	GEOMETRICAL, THERMAL AND MECHANICAL PROPERTIES OF OLIVE FRUITS. Journal of Food Process Engineering, 2010, 33, 257-271.	1.5	5
47	Knowledge-based system, equipped with cluster analysis for eco-material selection: an automobile structure case study. International Journal of Sustainable Engineering, 2014, 7, 200-213.	1.9	5
48	The Effect of Time, Percent of Copper and Nickel on the Natural Precipitation Hardness of Al â€“ Cu â€“ Ni Powder Metallurgy Alloys Using Design of Experiments. Journal of Minerals and Materials Characterization and Engineering, 2011, 10, 479-492.	0.1	4
49	Uncertainty and simulationâ€based cost analyses for energy storage systems used in green buildings. International Journal of Energy Research, 2022, 46, 14346-14370.	2.2	4
50	Deployment and Capacity Trends for Stationary Fuel Cell Systems in the USA. , 2016, , 257-269.		2
51	Fuel Cell Forklift Deployment in the USA. , 2016, , 334-342.		2
52	Eco-Material Selection for Lightweight Vehicle Design. , 2020, , .		2
53	Fuel Cell Systems: Total Cost of Ownership. , 2019, , 27-81.		2
54	Eco-Material Selection for Auto Bodies. , 2017, , 1-22.		1

#	ARTICLE	IF	CITATIONS
55	Knowledge Based Systems KBS for energy efficiency: Energy aware manufacturing. , 2013, , .		0
56	Specific energy analysis for the manufacturing of light-weight automobile body. International Journal of Sustainable Manufacturing, 2018, 4, 39.	0.3	0
57	Energy-Aware Manufacturing Using Information Technology Tools. International Journal of Information Technology and Web Engineering, 2014, 9, 70-77.	1.2	0
58	Specific energy analysis for the manufacturing of light-weight automobile body. International Journal of Sustainable Manufacturing, 2018, 4, 39.	0.3	0
59	Eco-material Selection for Auto Bodies. , 2019, , 3125-3146.		0