Runar Unnthorsson

List of Publications by Year
in descending order

92	1,452	361296 20	360920 35
papers	citations	h-index	g-index

93	93	93	1231
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrogen production via biomass gasification: simulation and performance analysis under different gasifying agents. Biofuels, 2022, 13, 717-726.	1.4	18
2	The Latest Advances in Wireless Communication in Aviation, Wind Turbines and Bridges. Inventions, 2022, 7, 18.	1.3	5
3	Dioxin Formation in Biomass Gasification: A Review. Energies, 2022, 15, 700.	1.6	13
4	Performance Investigation of Biomass Gasification for Syngas and Hydrogen Production Using Aspen Plus. Open Journal of Modelling and Simulation, 2022, 10, 71-87.	0.7	7
5	Implicit Equation for Photovoltaic Module Temperature and Efficiency via Heat Transfer Computational Model. Thermo, 2022, 2, 39-55.	0.6	3
6	Vibrotactile Threshold Measurements at the Wrist Using Parallel Vibration Actuators. ACM Transactions on Applied Perception, 2022, 19, 1-11.	1.2	5
7	Estimation of Spectral Notches From Pinna Meshes: Insights From a Simple Computational Model. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 2683-2695.	4.0	2
8	Artificial Neural Network Modeling of Bioethanol Production Via Syngas Fermentation. Biophysical Economics and Sustainability, 2021, 6, 1.	0.7	16
9	Gasification of Woody Biomasses and Forestry Residues: Simulation, Performance Analysis, and Environmental Impact. Fermentation, 2021, 7, 61.	1.4	19
10	Modeling of Hydrogen Production by Applying Biomass Gasification: Artificial Neural Network Modeling Approach. Fermentation, 2021, 7, 71.	1.4	16
11	Bioethanol Production via Herbaceous and Agricultural Biomass Gasification Integrated with Syngas Fermentation. Fermentation, 2021, 7, 139.	1.4	10
12	A Practical Approach for Estimating the Optimum Tilt Angle of a Photovoltaic Panel for a Long Periodâ€"Experimental Recorded Data. Solar, 2021, 1, 41-51.	0.9	5
13	Artificial neural network integrated with thermodynamic equilibrium modeling of downdraft biomass gasification-power production plant. Energy, 2020, 213, 118800.	4.5	69
14	The equivalence of stoichiometric and non-stoichiometric methods for modeling gasification and other reaction equilibria. Renewable and Sustainable Energy Reviews, 2020, 131, 109982.	8.2	21
15	Energy Harvesting Technologies for Structural Health Monitoring of Airplane Componentsâ€"A Review. Sensors, 2020, 20, 6685.	2.1	45
16	Simulation and Performance Analysis of Integrated Gasificationâ€"Syngas Fermentation Plant for Lignocellulosic Ethanol Production. Fermentation, 2020, 6, 68.	1.4	20
17	Dataset of biomass characteristics and net output power from downdraft biomass gasifier integrated power production unit. Data in Brief, 2020, 33, 106390.	0.5	8
18	Techno-Economic and Environmental Assessment of Power Supply Chain by Using Waste Biomass Gasification in Iceland. Biophysical Economics and Sustainability, 2020, 5, 1.	0.7	22

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19	Performance analysis and environmental assessment of small-scale waste biomass gasification integrated CHP in Iceland. Energy, 2020, 197, 117268.	4.5	53
20	Simulation of small-scale waste biomass gasification integrated power production: acomparative performance analysis for timber and wood waste. International Journal of Applied Power Engineering (IJAPE), 2020, 9, 147.	0.1	16
21	Effect of Coronavirus Disease 2019 on CO2 Emission in the World. Aerosol and Air Quality Research, 2020, 20, 1197-1203.	0.9	1
22	Effect of Coronavirus Disease 2019 on CO2 Emission in the World. Aerosol and Air Quality Research, 2020, 20, 1197-1203.	0.9	20
23	Techno-Economic Analysis of Power Production by Using Waste Biomass Gasification. Journal of Power and Energy Engineering, 2020, 08, 1-8.	0.3	18
24	The intensity order illusion: temporal order of different vibrotactile intensity causes systematic localization errors. Journal of Neurophysiology, 2019, 122, 1810-1820.	0.9	10
25	Prioritization of Bioethanol Production Systems from Agricultural and Waste Agricultural Biomass Using Multi-criteria Decision Making. BioPhysical Economics and Resource Quality, 2019, 4, 1.	2.4	19
26	A review of biomass gasification modelling. Renewable and Sustainable Energy Reviews, 2019, 110, 378-391.	8.2	236
27	Development of a New Stoichiometric Equilibrium-Based Model for Wood Chips and Mixed Paper Wastes Gasification by ASPEN Plus. , 2019, , .		10
28	Waste Biomass Gasification Simulation Using Aspen Plus: Performance Evaluation of Wood Chips, Sawdust and Mixed Paper Wastes. Journal of Power and Energy Engineering, 2019, 07, 12-30.	0.3	37
29	A Detachable Thermoelectric Generator As a Power Source for a 3G Camera Network Using a Steam Pipe As a Heat Source. , 2019, , .		0
30	Thermoelectric Generator-Based System for Energizing Low-Power Communication and Geolocation Electronics. , 2019, , .		0
31	Open Field Heating of Green Roofs and Small Arable Land Plots Using Waste Steam and Hot Water From Geothermal, Municipal and COGEN Sources to Enhance Plant Growth. , 2019, , .		0
32	Blind wayfinding with physically-based liquid sounds. International Journal of Human Computer Studies, 2018, 115, 9-19.	3.7	18
33	Societal and Environmental Impact of High Energy Return on Investment (EROI) Energy Access. , 2018, , 127-148.		0
34	Enhanced methane production from pig slurry with pulsed electric field pre-treatment. Environmental Technology (United Kingdom), 2018, 39, 479-489.	1.2	22
35	Different Approaches to Aiding Blind Persons in Mobility and Navigation in the â€œNavitonâ€•and â€œSound of Visionâ€•Projects. , 2018, , 435-468.		8
36	Evaluation of an Audio-haptic Sensory Substitution Device for Enhancing Spatial Awareness for the Visually Impaired. Optometry and Vision Science, 2018, 95, 757-765.	0.6	27

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37	Direct Use of Geothermal Resources for Circular Food Production. Proceedings (mdpi), 2018, 2, 497.	0.2	3
38	On Authority in Academia. , 2018, , .		0
39	On Improving Academic-Industry Collaboration. , 2018, , .		0
40	Measuring relative vibrotactile spatial acuity: effects of tactor type, anchor points and tactile anisotropy. Experimental Brain Research, 2018, 236, 3405-3416.	0.7	29
41	Uniaxial and lateral strain behavior of ribbed reinforcement bars inspected with digital image correlation. Structural Concrete, 2018, 19, 1992-2003.	1.5	1
42	Current Use and Future Perspectives of Spatial Audio Technologies in Electronic Travel Aids. Wireless Communications and Mobile Computing, 2018, 2018, 1-17.	0.8	18
43	An Assessment of the Sustainability of Lignocellulosic Bioethanol Production from Wastes in Iceland. Energies, 2018, 11, 1493.	1.6	44
44	Thermoelectric Powered Security Systems in Iceland Using a Geothermal Steam Pipe as a Heat Source. Proceedings (mdpi), 2018, 2, 440.	0.2	5
45	Introducing a New Haptic Illusion to Increase the Perceived Resolution of Tactile Displays. , 2018, , .		1
46	Calculations of environmental benefits from using geothermal energy must include the rebound effect. Geothermics, 2017, 66, 151-155.	1.5	2
47	Energy Return on Investment for Aquaponics: Case Studies from Iceland and Spain. BioPhysical Economics and Resource Quality, 2017, 2, 1.	2.4	4
48	Methane yield enhancement via electroporation of organic waste. Waste Management, 2017, 66, 61-69.	3.7	19
49	Auditory depth map representations with a sensory substitution scheme based on synthetic fluid sounds. , 2017, , .		5
50	A Step towards the Hydrogen Economyâ€"A Life Cycle Cost Analysis of A Hydrogen Refueling Station. Energies, 2017, 10, 763.	1.6	101
51	Heat pumps in subarctic areas: current status and benefits of use in Iceland. International Journal of Energy and Environmental Engineering, 2017, 8, 283-291.	1.3	1
52	Relative vibrotactile spatial acuity of the torso. Experimental Brain Research, 2017, 235, 3505-3515.	0.7	29
53	A Method for Estimating Annual Energy Production Using Monte Carlo Wind Speed Simulation. Energies, 2016, 9, 286.	1.6	24
54	Taxonomy of Means and Ends in Aquaculture Productionâ€"Part 2: The Technical Solutions of Controlling Solids, Dissolved Gasses and pH. Water (Switzerland), 2016, 8, 387.	1.2	11

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55	Designing sensory-substitution devices: Principles, pitfalls and potential1. Restorative Neurology and Neuroscience, 2016, 34, 769-787.	0.4	69
56	Taxonomy of Means and Ends in Aquaculture Productionâ€"Part 1: The Functions. Water (Switzerland), 2016, 8, 319.	1.2	6
57	Taxonomy of Means and Ends in Aquaculture Productionâ€"Part 4: The Mapping of Technical Solutions onto Multiple Treatment Functions. Water (Switzerland), 2016, 8, 487.	1.2	1
58	Taxonomy of Means and Ends in Aquaculture Productionâ€"Part 3: The Technical Solutions of Controlling N Compounds, Organic Matter, P Compounds, Metals, Temperature and Preventing Disease. Water (Switzerland), 2016, 8, 506.	1.2	4
59	The Sound of Vision Project: On the Feasibility of an Audio-Haptic Representation of the Environment, for the Visually Impaired. Brain Sciences, 2016, 6, 20.	1.1	23
60	Design of a Clamp for a Thermoelectric Generator Using Bimetallic Thermal Properties. , 2016, , .		0
61	Heat Transfer Analysis of Shell-and-Helical-Coil Heat Exchangers. , 2016, , .		0
62	Design of a Low-Power Quadruped Robot for Remote Data Acquisition in a Heated Garden. , 2016, , .		1
63	Translational researchâ€"the need of a new bioethics approach. Journal of Translational Medicine, 2016, 14, 16.	1.8	27
64	Design and Construction of a Heated Garden System Utilizing Steam Condensate From an On Site Boiler. , 2016, , .		0
65	Levelized Cost of Energy Analysis of a Wind Power Generation System at BÃºrfell in Iceland. Energies, 2015, 8, 9464-9485.	1.6	27
66	Theorizing for Maintenance Management Improvements: Using Case Studies from the Icelandic Geothermal Sector. Energies, 2015, 8, 4943-4962.	1.6	4
67	Energy return on investment of Austrian sugar beet: A small-scale comparison between organic and conventional production. Biomass and Bioenergy, 2015, 75, 267-271.	2.9	7
68	Innovation and development in geothermal turbine maintenance based on Icelandic experience. Geothermics, 2015, 56, 72-78.	1.5	2
69	Turbine repair at Nesjavellir geothermal power plant: An Icelandic case study. Geothermics, 2015, 53, 166-170.	1.5	6
70	Geothermal wellhead maintenance: A statistical model based on documented Icelandic experience. Geothermics, 2015, 53, 147-153.	1.5	2
71	Designing and Installing a Retrofit Heated Green Roof Using Either Co-Gen Waste Hot Water or Municipal Waste Steam Heat as Energy Source. , 2014, , .		0
72	A Web-Accessible Robotics Monitoring System Powered by a Thermoelectric Generator Connected to a Battery. , 2014, , .		1

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73	Geothermal Power Plant Maintenance: Evaluating Maintenance System Needs Using Quantitative Kano Analysis. Energies, 2014, 7, 4169-4184.	1.6	10
74	Ideal EROI (energy return on investment) deepens the understanding of energy systems. Energy, 2014, 67, 241-245.	4.5	33
75	Energy return on investment of hydroelectric power generation calculated using a standardised methodology. Renewable Energy, 2014, 66, 364-370.	4.3	18
76	Necessity is the Mother of Invention: The Dawn of Domestic Geothermal Turbine Repairs in Iceland. , 2014, , .		0
77	Wellhead Scaling Problems in Geothermal Power Plants Addressed Using a Needle Valve Derivative. , 2014, , .		0
78	Simulation Based Grid Optimization to Enhance Renewable Energy Storage in Iceland. , 2014, , .		1
79	Go With the Flow: The Evolvement of Geothermal Wellhead Maintenance at the Hellisheidi Power Plant. , 2014, , .		0
80	Hot water production improves the energy return on investment ofÂgeothermal power plants. Energy, 2013, 51, 273-280.	4.5	18
81	Specified Maintenance of Steam Turbines in Geothermal Power Plants. , 2013, , .		3
82	Operation and Maintenance in Icelandic Geothermal Power Plants: Structure and Hierarchy. , 2013, , .		3
83	Repurposing Waste Steam and Hot Water to Accelerate Plant Growth in Heated Green Roofs. , 2013, , .		1
84	Waste Geothermal Hot Water for Enhanced Outdoor Agricultural Production. , 2013, , .		3
85	Waste-Heat for Pre-Heating Internal Combustion Engines. , 2012, , .		2
86	Thermoelectric-Based Power Generator for Powering Microcontroller Based Security Camera. , 2012, , .		1
87	Fin Drive Propulsion. , 2012, , .		0
88	Acoustic emission based fatigue failure criterion for CFRP. International Journal of Fatigue, 2008, 30, 11-20.	2.8	47
89	Hit Detection and Determination in AE Bursts. , 0, , .		19
90	Thermoelectric Generator Using Passive Cooling. , 0, , .		3

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91	Dioxin and Furan Emissions from Gasification. , 0, , .		4
92	Identifying and Monitoring Evolving AE Sources. , 0, , .		0