

Estimation of the largest expected photovoltaic power ramp rates. / Lappalainen, Kari; Wang, Guang C.; Kleissl, Jan.

In: Applied Energy, Vol. 278, 115636, 15.11.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Tuning electricity generation throughout the year with PV module technology. / Manganiello, Patrizio; Govaerts, Jonathan; Horvath, Imre T.; Chowdhury, Mohammed Gofran; Yordanov, Georgi H.; Goverde, Hans; Aldalali, Bader; Beausoleil-Morrison, Ian; Valkealahti, Seppo; Lappalainen, Kari; Poortmans, Jef.

In: Renewable Energy, Vol. 160, 01.11.2020, p. 418-427.

Research output: Contribution to journal › Article › Scientific › peer-review

How consumers' respect for nature and environmental self-assets influence their car brand experiences. / Saari, Ulla A.;

Mäkinen, Saku J.; Baumgartner, Rupert J.; Hillebrand, Bas; Driessen, Paul H.

In: Journal of Cleaner Production, Vol. 261, 121023, 10.07.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Comprehensive assessment brings out shortcomings in almost every school building. / Marttila, Tero; Lahdensivu, Jukka; Pekkanen, Juha.

In: E3S Web of Conferences, Vol. 172, 23002, 30.06.2020.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Laboratory tests and modelling of mineral wool insulated steel sandwich panels. / Laukkarinen, Anssi; Vinha, Juha; Kalbe, Kristo; Kesti, Jyrki; Kalamees, Targo; Honkakoski, Erkki.

In: E3S Web of Conferences, Vol. 172, 17006, 30.06.2020.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Ministry of the Environment announces a Guide on Renovation and Repair of Buildings with Moisture and Microbial Damage - From theory to practice. / Weijo, Inari; Turunen, Timo; Lahdensivu, Jukka; Sistonen, Esko; Annala, Petri.

In: E3S Web of Conferences, Vol. 172, 20007, 30.06.2020.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Reliability of the detection of moisture and mould damage in visual inspections. / Annala, Petri J.; Lahdensivu, Jukka.

In: E3S Web of Conferences, Vol. 172, 23004, 30.06.2020.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Current collectors for low resistance aqueous flexible printed supercapacitors. / Arvani, Maedeh; Keskinen, Jari; Lupo, Donald; Honkanen, Mari.

In: Journal of Energy Storage, Vol. 29, 101384, 01.06.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Operation of a PV power plant during overpower events caused by the cloud enhancement phenomenon. / Järvelä, Markku; Valkealahti, Seppo.

In: Energies, Vol. 13, No. 9, 2185, 01.05.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Assessing and comparing short term load forecasting performance. / Koponen, Pekka; Ikäheimo, Jussi; Koskela, Juha; Brester, Christina; Niska, Harri.

In: Energies, Vol. 13, No. 8, 2054, 01.04.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Practical implementation of adaptive SRF-PLL for three-phase inverters based on sensitivity function and real-time grid-impedance measurements. / Luhtala, Roni; Alenius, Henrik; Roinila, Tomi.

In: Energies, Vol. 13, No. 5, 1173, 01.03.2020.

Research output: Contribution to journal › Article › Scientific › peer-review

A novel electrical charging condensing heat exchanger for efficient particle emission reduction in small wood boilers. /

Grigonytė-Lopez Rodriguez, Julija; Suhonen, Heikki; Laitinen, Ari; Tissari, Jarkko; Kortelainen, Miika; Tiitta, Petri; Lähde, Anna; Keskinen, Jorma; Jokiniemi, Jorma; Sippula, Olli.

In: *Renewable Energy*, Vol. 145, 01.2020, p. 521-529.
Research output: Contribution to journal › Article › Scientific › peer-review

Acid and ferric sulfate bioleaching of uranium ores : A review. / Kaksonen, Anna H.; Lakaniemi, Aino-Maija; Tuovinen, Olli H.

In: *Journal of Cleaner Production*, Vol. 264, 121586, 2020.
Research output: Contribution to journal › Review Article › Scientific › peer-review

Autonomous reactive power support for smart photovoltaic inverter based on real-time grid-impedance measurements of a weak grid. / Alenius, Henrik; Luhtala, Roni; Messo, Tuomas; Roinila, Tomi.

In: *Electric Power Systems Research*, Vol. 182, 106207, 2020.
Research output: Contribution to journal › Article › Scientific › peer-review

Censor-Based Cooperative Multi-Antenna Spectrum Sensing with Imperfect Reporting Channels. / Li, Meiling; Alhussein, Omar; Sofotasios, Paschalis C.; Muhaidat, Sami; Yoo, Paul D.; Liang, Jie; Wang, Anhong.

In: *IEEE Transactions on Sustainable Computing*, Vol. 5, No. 1, 2020, p. 48-60.
Research output: Contribution to journal › Article › Scientific › peer-review

Charge transfer characteristics of fullerene-free polymer solar cells via multi-state electronic coupling treatment. / Kastinen, Tuuva; Hukka, Terttu I.

In: *Sustainable Energy and Fuels*, Vol. 4, No. 8, 2020, p. 4137-4157.
Research output: Contribution to journal › Article › Scientific › peer-review

Charlie and the CryptoFactory : Towards Secure and Trusted Manufacturing Environments. / Michalakis, Antonis; Kiss, Tamas.

20th IEEE Mediterranean Electrotechnical Conference, MELECON 2020: Proceedings. IEEE, 2020. p. 141-146 (IEEE Mediterranean Electrotechnical Conference).
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Distributed small loads as fast frequency reserves : Impact on system performance. / Peltonen, Lasse; Järventausta, Pertti; Repo, Sami; Rauhala, Tuomas.

2020 IEEE Texas Power and Energy Conference, TPEC 2020. IEEE, 2020. p. 114-119.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Enhancement of EQE for MBE grown InAs/GaAs Quantum Dot Solar Cell with Back Reflector. / Aho, Timo; Tukiainen, Antti; Ranta, Sanna; Elsehrawy, Farid; Raappana, Marianna; Isoaho, Riku; Aho, Arto; Cappelluti, Federica; Guina, Mircea. 2019 IEEE 46th Photovoltaic Specialists Conference (PVSC). IEEE, 2020. p. 2593-2596 (Conference record of the IEEE Photovoltaic Specialists Conference).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Enhancing thermophilic dark fermentative hydrogen production at high glucose concentrations via bioaugmentation with *Thermotoga neapolitana*. / Okonkwo, Onyinye; Papirio, Stefano; Trably, Eric; Escudie, Renaud; Lakaniemi, Aino-Maija; Esposito, Giovanni.

In: *International Journal of Hydrogen Energy*, Vol. 45, No. 35, 2020, p. 17241-17249.
Research output: Contribution to journal › Article › Scientific › peer-review

Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity : The Role of Gold Nanoparticle Addition. / Tofanello, Aryane; Freitas, Andre L.M.; Carvalho, Waldemir M.; Salminen, Turkka; Niemi, Tapio; Souza, Flavio L.

In: *Journal of Physical Chemistry C*, 2020.
Research output: Contribution to journal › Article › Scientific › peer-review

Local Mechanical Properties at the Dendrite Scale of Ni-Based Superalloys Studied by Advanced High Temperature Indentation Creep and Micropillar Compression Tests. / Haußmann, Lukas; Neumeier, Steffen; Kolb, Markus; Ast, Johannes; Mohanty, Gaurav; Michler, Johann; Göken, Mathias.

Superalloys 2020: Proceedings of the 14th International Symposium on Superalloys. ed. / Sammy Tin; Mark Hardy; Justin Clews; Jonathan Cormier; Qiang Feng; John Marcin; Chris O'Brien; Akane Suzuki. Springer, 2020. p. 273-281 (The Minerals, Metals and Materials Series).

Luminescent (Er,Ho)₂O₃ thin films by ALD to enhance the performance of silicon solar cells. / Ghazy, Amr; Safdar, Muhammad; Lastusaari, Mika; Aho, Arto; Tukiainen, Antti; Savin, Hele; Guina, Mircea; Karppinen, Maarit.
In: Solar Energy Materials and Solar Cells, Vol. 219, 110787, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Mapping the types of business experimentation in creating sustainable value : A case study of cleantech start-ups. / Aagaard, Annabeth; Saari, Ulla A.; Mäkinen, Saku J.
In: Journal of Cleaner Production, Vol. 279, 123182, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of TiO₂ for Enhanced Solar Water Splitting. / Palmolahti, Lauri; Ali-Löytty, Harri; Khan, Ramsha; Saari, Jesse; Tkachenko, Nikolai V.; Valden, Mika.
In: Journal of Physical Chemistry C, Vol. 124, No. 24, 2020, p. 13094-13101.

Research output: Contribution to journal › Article › Scientific › peer-review

Numerical modeling of the tool-rock penetration process using FEM coupled with SPH technique. / Mardalizad, Aria; Saksala, Timo; Manes, Andrea; Giglio, Marco.
In: JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING, Vol. 189, 107008, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Plant-Based Biodegradable Capacitive Tactile Pressure Sensor Using Flexible and Transparent Leaf Skeletons as Electrodes and Flower Petal as Dielectric Layer. / Elsayes, Ahmed; Sharma, Vipul; Yiannacou, Kyriacos; Koivikko, Anastasia; Rasheed, Anum; Sariola, Veikko.
In: Advanced Sustainable Systems, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Structural Compatibility of Infrastructures Utilizing Alternative Earth Construction Materials. / Kolisoja, Pauli; Kalliainen, Antti.
In: Waste and Biomass Valorization, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Urban housing density and infrastructure costs. / Kurvinen, Antti; Saari, Arto.
In: Sustainability (Switzerland), Vol. 12, No. 2, 497, 2020.

Research output: Contribution to journal › Article › Scientific › peer-review

Power production and microbial community composition in thermophilic acetate-fed up-flow and flow-through microbial fuel cells. / Dessì, Paolo; Chatterjee, Pritha; Mills, Simon; Kokko, Marika; Lakaniemi, Aino-Maija; Collins, Gavin; Lens, Piet N.L.

In: Bioresource Technology, Vol. 294, 122115, 01.12.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Towards the EU emission targets of 2050 : Cost-effective emission reduction in Finnish detached houses. / Hirvonen, Janne; Jokisalo, Juha; Heljo, Juhani; Kosonen, Risto.

In: Energies, Vol. 12, No. 22, 4395, 19.11.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Potential of renewable fuel to reduce diesel exhaust particle emissions. / Pirjola, Liisa; Kuuluvainen, Heino; Timonen, Hilikka; Saarikoski, Sanna; Teinilä, Kimmo; Salo, Laura; Datta, Arindam; Simonen, Pauli; Karjalainen, Panu; Kulmala, Kari; Rönkkö, Topi.

In: Applied Energy, Vol. 254, 113636, 15.11.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Maximum perturbation step size in MPP-Tracking control for ensuring predicted PV power settling behavior. / Suntio, Teuvo; Kuperman, Alon.

In: *Energies*, Vol. 12, No. 20, 3984, 19.10.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Performance of Solar Cell Grids based on Ag, Au, and Al for Cost-Effective Manufacturing. / Raappana, Marianna; Aho, Arto; Aho, Timo; Isoaho, Riku; Anttola, Elina; Kajas, Ninja; Polojärvi, Ville; Tukiainen, Antti; Guina, Mircea. 2019 European Space Power Conference (ESPC). IEEE, 2019.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Building university-industry co-innovation networks in transnational innovation ecosystems : Towards a transdisciplinary approach of integrating social sciences and artificial intelligence. / Cai, Yuzhuo; Ferrer, Borja Ramis; Lastra, Jose Luis Martinez.

In: *Sustainability*, Vol. 11, No. 17, 4633, 01.09.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

The potential of biomethane in replacing fossil fuels in heavy transport-a case study on Finland. / Pääkkönen, Anna; Aro, Kalle; Aalto, Pami; Konttinen, Jukka; Kojo, Matti.

In: *Sustainability*, Vol. 11, No. 17, 4750, 01.09.2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Towards a circular economy by leveraging hazardous resources : A case study of Fortum HorsePower. / Tura, Nina; Ahola, Tuomas.

In: *Journal of Cleaner Production*, Vol. 230, 01.09.2019, p. 518-526.

Research output: Contribution to journal › Article › Scientific › peer-review

Cost optimal energy performance renovation measures in a municipal service building in a cold climate. / Jokisalo, Juha; Sankelo, Paula; Vinha, Juha; Sirén, Kai; Kosonen, Risto.

CLIMA 2019 Congress: Bucharest, Romania, May 26-29, 2019. EDP Sciences, 2019. (E3S Web of Conferences; Vol. 111).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Optimization of emission reducing energy retrofits in Finnish apartment buildings. / Hirvonen, Janne; Jokisalo, Juha; Heljo, Juhani; Kosonen, Risto.

CLIMA 2019 Congress: Bucharest, Romania, May 26-29, 2019. EDP Sciences, 2019. 03002 (E3S Web of Conferences; Vol. 111).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Understanding tariff designs and consumer behaviour to employ electric vehicles for secondary purposes in the United Kingdom. / Küfeoğlu, S.; Melchiorre, D. A.; Kotilainen, K.

In: *ELECTRICITY JOURNAL*, Vol. 32, No. 6, 01.07.2019, p. 1-6.

Research output: Contribution to journal › Article › Scientific › peer-review

Photovoltaic properties of low-bandgap (0.7–0.9eV) lattice-matched GaInNAsSb solar junctions grown by molecular beam epitaxy on GaAs. / Isoaho, Riku; Aho, Arto; Tukiainen, Antti; Aho, Timo; Raappana, Marianna; Salminen, Turkka; Reuna, Jarno; Guina, Mircea.

In: *Solar Energy Materials and Solar Cells*, Vol. 195, 15.06.2019, p. 198-203.

Research output: Contribution to journal › Article › Scientific › peer-review

Impact of Different Concrete Types on Radio Propagation : Fundamentals and Practical RF Measurements. / Asp, Ari; Hentilä, Tuomo; Valkama, Mikko; Pikkuvirta, Jussa; Hujanen, Arto; Huhtinen, Ismo.

2019 4th International Conference on Smart and Sustainable Technologies, SpliTech 2019. ed. / Joel J.P.C. Rodrigues; Petar Solic; Toni Perkovic; Katarina Vukojevic; Joel J.P.C. Rodrigues; Luigi Patrono; Sandro Nizetic. IEEE, 2019.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Pre-Grant Signaling for Energy-Efficient 5G and Beyond Mobile Devices : Method and Analysis. / Rostami, Soheil; Heiska, Kari; Puchko, Oleksandr; Leppanen, Kari; Valkama, Mikko.

In: *IEEE Transactions on Green Communications and Networking*, Vol. 3, No. 2, 8616818, 01.06.2019, p. 418-432.

Research output: Contribution to journal › Article › Scientific › peer-review

Artificial intelligence yesterday, today and tomorrow. / Jaakkola, H.; Henno, J.; Mäkelä, J.; Thalheim, B.

2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings. ed. / Karolj Skala; Zeljka Car; Predrag Pale; Darko Huljenic; Matej Janjic; Marko Koracic; Vlado Sruk; Slobodan Ribaric; Tihana Galinac Grbac; Zeljko Butkovic; Marina Cicin-Sain; Dejan Skvorc; Mladen Mauher; Snjezana Babic; Stjepan Gros; Boris Vrdoljak; Edvard Tijan. IEEE, 2019. p. 860-867.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Intelligent data service for farmers. / Linna, P.; Narra, N.; Grönman, J.

2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings. ed. / Karolj Skala; Zeljka Car; Predrag Pale; Darko Huljenic; Matej Janjic; Marko Koracic; Vlado Sruk; Slobodan Ribaric; Tihana Galinac Grbac; Zeljko Butkovic; Marina Cicin-Sain; Dejan Skvorc; Mladen Mauher; Snjezana Babic; Stjepan Gros; Boris Vrdoljak; Edvard Tijan. IEEE, 2019. p. 1072-1075.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Teaching for virtual work. / Henno, J.; Jaakkola, H.; Mäkelä, J.

2019 42nd International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2019 - Proceedings. ed. / Karolj Skala; Zeljka Car; Predrag Pale; Darko Huljenic; Matej Janjic; Marko Koracic; Vlado Sruk; Slobodan Ribaric; Tihana Galinac Grbac; Zeljko Butkovic; Marina Cicin-Sain; Dejan Skvorc; Mladen Mauher; Snjezana Babic; Stjepan Gros; Boris Vrdoljak; Edvard Tijan. IEEE, 2019. p. 818-826.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

GIS-data related route optimization, hierarchical clustering, location optimization, and kernel density methods are useful for promoting distributed bioenergy plant planning in rural areas. / Laasasenaho, K.; Lensu, A.; Lauhanen, R.; Rintala, J.

In: Sustainable Energy Technologies and Assessments, Vol. 32, 01.04.2019, p. 47-57.

Research output: Contribution to journal > Article > Scientific > peer-review

Energy Detection-Based Spectrum Sensing over Fisher-Snedecor F Fading Channels. / Yoo, Seong Ki; Cotton, Simon L.; Sofotasios, Paschalis C.; Muhaidat, Sami; Badarneh, Osamah S.; Karagiannidis, George K.

2018 IEEE Global Communications Conference. IEEE, 2019. 8647778.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Improved Session Continuity in 5G NR with Joint Use of Multi-Connectivity and Guard Bandwidth. / Kovalchukov, Roman; Moltchanov, Dmitri; Begishev, Vyacheslav; Samuylov, Andrey; Andreev, Sergey; Koucheryavy, Yevgeni; Samouylov, Konstantin.

2018 IEEE Global Communications Conference, GLOBECOM 2018. IEEE, 2019.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

The potential of electric trucks – An international commodity-level analysis. / Liimatainen, Heikki; van Vliet, Oscar; Aplyn, David.

In: Applied Energy, Vol. 236, 15.02.2019, p. 804-814.

Research output: Contribution to journal > Article > Scientific > peer-review

Impedance-based interactions in grid-tied three-phase inverters in renewable energy applications. / Suntio, Teuvo; Messo, Tuomas; Berg, Matias; Alenius, Henrik; Reinikka, Tommi; Luhtala, Roni; Zenger, Kai.

In: Energies, Vol. 12, No. 3, 464, 31.01.2019.

Research output: Contribution to journal > Review Article > Scientific > peer-review

Direct fixed-step maximum power point tracking algorithms with adaptive perturbation frequency. / Amer, Eyal; Kuperman, Alon; Suntio, Teuvo.

In: Energies, Vol. 12, No. 3, 399, 27.01.2019.

Research output: Contribution to journal > Article > Scientific > peer-review

The economics of renewable CaC₂ and C₂H₂ production from biomass and CaO. / Pääkkönen, A.; Tolvanen, H.; Kokko, L.

In: Biomass and Bioenergy, Vol. 120, 01.01.2019, p. 40-48.

Research output: Contribution to journal > Article > Scientific > peer-review

Why social sustainability counts : The impact of corporate social sustainability culture on financial success. / Schönborn, Gregor; Berlin, Cecilia; Pinzone, Marta; Hanisch, Christoph; Georgoulas, Konstantinos; Lanz, Minna.
In: Sustainable Production and Consumption, Vol. 17, 01.01.2019, p. 1-10.
Research output: Contribution to journal > Article > Scientific > peer-review

Charge carrier dynamics in tantalum oxide overlayers and tantalum doped hematite photoanodes. / Ruoko, Tero-Petri; Hiltunen, Arto; Iivonen, Tomi; Ulkuniemi, Riina; Lahtonen, Kimmo; Ali-Löyty, Harri; Mizohata, Kenichiro; Valden, Mika; Leskelä, Markku; Tkachenko, Nikolai V.
In: Journal of Materials Chemistry A, Vol. 7, No. 7, 01.2019, p. 3206-3215.
Research output: Contribution to journal > Article > Scientific > peer-review

Back Reflector with Diffractive Gratings for Light-Trapping in Thin-Film III-V Solar Cells. / Aho, Timo; Tukiainen, Antti; Elsehrawy, Farid; Ranta, Sanna; Raappana, Marianna; Aho, Arto; Isoaho, Riku; Cappelluti, Federica; Guina, Mircea.
2019 European Space Power Conference (ESPC). IEEE, 2019.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Bio-hydrogen Production from Sewage Sludge : Screening for Pretreatments and Semi-continuous Reactor Operation. / El-Qelish, Mohamed; Chatterjee, Pritha; Dessì, Paolo; Kokko, Marika; El-Gohary, Fatma; Abo-Aly, Mohamed; Rintala, Jukka.
In: Waste and Biomass Valorization, 2019.
Research output: Contribution to journal > Article > Scientific > peer-review

Combined experimental and theoretical study of acetylene semi-hydrogenation over Pd/Al₂O₃. / Gonçalves, Lilianna P.L.; Wang, Jianguang; Vinati, Simone; Barborini, Emanuele; Wei, Xian Kui; Heggen, Marc; Franco, Miguel; Sousa, Juliana P.S.; Petrovykh, Dmitri Y.; Soares, Olívia Salomé G.P.; Kovnir, Kirill; Akola, Jaakko; Kolen'ko, Yury V.
In: International Journal of Hydrogen Energy, 2019.
Research output: Contribution to journal > Article > Scientific > peer-review

Cost-optimal energy performance measures in a new daycare building in cold climate. / Sankelo, Paula; Jokisalo, Juha; Nyman, Jonathan; Vinha, Juha; Sirén, Kai.
In: International Journal of Sustainable Energy, Vol. 38, No. 2, 2019, p. 104-122.
Research output: Contribution to journal > Article > Scientific > peer-review

Effect of apartment building energy renovation on hourly power demand. / Hirvonen, Janne; Jokisalo, Juha; Heljo, Juhani; Kosonen, Risto.
In: International Journal of Sustainable Energy, 2019.
Research output: Contribution to journal > Article > Scientific > peer-review

Guest editorial joint special section on power conversion & control in photovoltaic power plants. / Johnson, Brian; Chang, Liuchen; Afridi, Khurram; Ali, Mohd Hasan; Von Appen, Jan; Chen, Yaow Ming; Davoudi, Ali; Dhople, Sairaj; Enslin, Johan H.; Flicker, Jack; Islam, Md Rabiul; Koutroulis, Eftichios; Kim, Katherine A.; Li, Yunwei; Liserre, Marco; Long, Teng; Lu, Xiaonan; Mattavelli, Paolo; Rodriguez, Pedro; Ruan, Xinbo; Suntio, Teuvo; Wang, Huai; Xu, Dehong; Xu, Wei; Yazdani, Amirnaser; Zeineldin, Hatem; Zhu, Jianguo.
In: IEEE Transactions on Energy Conversion, Vol. 34, No. 1, 2019, p. 159-160.
Research output: Contribution to journal > Editorial > Scientific

Identification of three-phase grid impedance in the presence of parallel converters. / Luhtala, Roni; Messo, Tuomas; Roinila, Tomi; Alenius, Henrik; Jong, Erik De; Burstein, Andrew; Fabian, Alejandra.
In: Energies, Vol. 12, No. 14, 2674, 2019.
Research output: Contribution to journal > Article > Scientific > peer-review

Narrow Bandgap Dilute Nitride Materials for 6-junction Space Solar Cells. / Isoaho, Riku; Aho, Arto; Tukiainen, Antti; Aho, Timo; Raappana, Marianna; Salminen, Turkka; Reuna, Jarno ; Guina, Mircea.
2019 European Space Power Conference (ESPC). IEEE, 2019.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Power electronics in renewable energy systems. / Suntio, Teuvo; Messo, Tuomas.

In: *Energies*, Vol. 12, No. 10, en12101852, 2019.

Research output: Contribution to journal › Editorial › Scientific

Remote diagnostics application software for remote handling equipment. / Alanen, Jarmo; Ruiz Morales, Emilio; Muhammad, Ali; Saarinen, Hannu; Minkkinen, Joni.

In: *Fusion Engineering and Design*, 2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Sustainability of bioenergy in finland and globally – fact check. / Vakkilainen, Esa; Konttinen, Jukka; Orasuo, Varpu; Aalto, Pami.

27th European Biomass Conference and Exhibition, EUBCE 2019. ETA-Florence Renewable Energies, 2019. p. 1634-1635 (European Biomass Conference and Exhibition Proceedings).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Technology valuation method for supporting knowledge management in technology decisions to gain sustainability. / Mämmelä, Janne; Juuti, Tero; Julkunen, Pasi.

In: *Sustainability (Switzerland)*, Vol. 11, No. 12, 3410, 2019.

Research output: Contribution to journal › Article › Scientific › peer-review

Towards the EU emissions targets of 2050 : optimal energy renovation measures of Finnish apartment buildings. /

Hirvonen, Janne; Jokisalo, Juha; Heljo, Juhani; Kosonen, Risto.

In: *International Journal of Sustainable Energy*, Vol. 38, No. 7, 2019.

Research output: Contribution to journal › Article › Scientific › peer-review

How and why does willow biochar increase a clay soil water retention capacity? / Rasa, Kimmo; Heikkinen, Jaakko;

Hannula, Markus; Arstila, Kai; Kulju, Sampo; Hyväluoma, Jari.

In: *Biomass and Bioenergy*, Vol. 119, 01.12.2018, p. 346-353.

Research output: Contribution to journal › Article › Scientific › peer-review

Energiatehokkaan arkkitehtisuunnittelun ohjekortisto. / Moisio, Malin; Kaasalainen, Tapio; Lehtinen, Taru; Hedman, Markku.

Tampereen teknillinen yliopisto. Arkkitehtuurin laboratorio, 2018. 142 p. (Tampereen teknillinen yliopisto. Arkkitehtuurin laboratorio. Asuntosuunnittelu. Julkaisu; Vol. 32).

Research output: Book/Report › Book › Professional

Peruskoulut ja energiatehokkuus : Tilallisista ja toiminnallisista suunnitteluperiaatteista. / Lehtinen, Taru; Papinsaari, Anna-Kristiina; Kaasalainen, Tapio; Moisio, Malin; Hedman, Markku.

Tampereen teknillinen yliopisto. Arkkitehtuurin laboratorio, 2018. 86 p. (Tampereen teknillinen yliopisto. Arkkitehtuurin laboratorio. Asuntosuunnittelu. Julkaisu; Vol. 34).

Research output: Book/Report › Book › Professional

Creating value in the circular economy : A structured multiple-case analysis of business models. / Ranta, Valtteri; Aarikka-Stenroos, Leena; Mäkinen, Saku J.

In: *Journal of Cleaner Production*, Vol. 201, 10.11.2018, p. 988-1000.

Research output: Contribution to journal › Article › Scientific › peer-review

Flux-Weakening Control for IPMSM Employing Model Order Reduction. / Far, Mehrnaz Farzam; Mustafa, Bilal; Martin, Florian; Rasilo, Paavo; Belahcen, Anouar.

2018 23rd International Conference on Electrical Machines, ICEM 2018. IEEE, 2018. p. 1510-1516.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Model Order Reduction of Bearingless Reluctance Motor Including Eccentricity. / Far, Mehrnaz Farzam; Mukherjee, Victor; Martin, Florian; Rasilo, Paavo; Belahcen, Anouar.

2018 23rd International Conference on Electrical Machines, ICEM 2018. IEEE, 2018. p. 2243-2249.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

A comparative analysis of global datasets and initiatives for urban health and sustainability. / Taylor, Jonathon; Haines, Andy; Milner, James; Davies, Mike; Wilkinson, Paul; Sehgal, Meena; Singh, Kanwal Nayan; Barreto, Mauricio; Vianna, Nelzair; Teles, Carlos.

In: Sustainability (Switzerland), Vol. 10, No. 10, 3636, 11.10.2018.

Research output: Contribution to journal › Article › Scientific › peer-review

Quantification of bio-anode capacitance in bioelectrochemical systems using Electrochemical Impedance Spectroscopy. / Heijne, Annemiek ter; Liu, Dandan; Sulonen, Mira; Sleutels, Tom; Fabregat-Santiago, Francisco.

In: Journal of Power Sources, Vol. 400, 01.10.2018, p. 533-538.

Research output: Contribution to journal › Article › Scientific › peer-review

Cloud Enhancement Phenomenon and its Effect on PV Generators. / Järvelä, Markku; Lappalainen, Kari; Valkealahti, Seppo.

35th European Photovoltaic Solar Energy Conference and Exhibition (35th EU PVSEC), 24–28 September, 2018, Brussels, Belgium. 2018. p. 1964-1968.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Automatic Meter Infrastructure (AMI) as a part of flexibility market. / Repo, Sirpa; Pylvänäinen, Jouni; Kauppinen, Markku; Repo, Sami; Jarventausta, Pertti.

15th International Conference on the European Energy Market, EEM 2018. Vol. 2018-June IEEE COMPUTER SOCIETY PRESS, 2018. 8469765 (International Conference on the European Energy Market).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Comparison of innovation policies for electric vehicle business ecosystems. / Valta, Jussi; Mäkinen, Saku; Kotilainen, Kirsi; Rautiainen, Antti; Järventausta, Pertti.

15th International Conference on the European Energy Market, EEM 2018. Vol. 2018-June IEEE COMPUTER SOCIETY PRESS, 2018. 8469785 (International Conference on the European Energy Market).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Effects of electric vehicles and heat pumps on long-term electricity consumption scenarios for rural areas in the nordic environment. / Haakana, Juha; Haapaniemi, Jouni; Lassila, Jukka; Partanen, Jarmo; Niska, Harri; Rautiainen, Antti.

15th International Conference on the European Energy Market, EEM 2018. Vol. 2018-June IEEE COMPUTER SOCIETY PRESS, 2018. 8469937 (International Conference on the European Energy Market).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Microgrids as part of electrical energy system - Pricing scheme for network tariff of DSO. / Lummi, Kimmo; Rautiainen, Antti; Peltonen, Lasse; Repo, Sami; Järventausta, Pertti; Rintala, Joni.

15th International Conference on the European Energy Market, EEM 2018. Vol. 2018-June IEEE COMPUTER SOCIETY PRESS, 2018. 8469965 (International Conference on the European Energy Market).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Use case description of real-time control of microgrid flexibility. / Mashlakov, Aleksei; Tikka, Ville; Honkapuro, Samuli; Partanen, Jarmo; Repo, Sami; Järventausta, Pertti; Kulmala, Anna; Abdurafikov, Rinat; Keski-Koukkari, Antti; Aro, Matti.

15th International Conference on the European Energy Market, EEM 2018. Vol. 2018-June IEEE COMPUTER SOCIETY PRESS, 2018. 8469218 (International Conference on the European Energy Market).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Alternative Power-Based Pricing Schemes for Distribution Network Tariff of Small Customers. / Lummi, Kimmo; Rautiainen, Antti; Jarventausta, Pertti; Heine, Pirjo; Lehtinen, Jouni; Hyvarinen, Markku; Salo, Johannes.

International Conference on Innovative Smart Grid Technologies, ISGT Asia 2018. Institute of Electrical and Electronics Engineers Inc., 2018. p. 581-586.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Constrained Long-Horizon Direct Model Predictive Control for Synchronous Reluctance Motor Drives. / Ortombina, L.; Liegmann, E.; Karamanakos, P.; Tinazzi, F.; Zigliotto, M.; Kennel, R.

2018 IEEE 19th Workshop on Control and Modeling for Power Electronics, COMPEL 2018. IEEE, 2018. 8460173.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Performance of a biotrickling filter for the anaerobic utilization of gas-phase methanol coupled to thiosulphate reduction and resource recovery through volatile fatty acids production. / Eregowda, Tejaswini; Matanhike, Luck; Rene, Eldon R.; Lens, Piet N.L.

In: Bioresource Technology, Vol. 263, 01.09.2018, p. 591-600.

Research output: Contribution to journal > Article > Scientific > peer-review

A distributed automation architecture for distribution networks, from design to implementation. / Angioni, Andrea; Lu, Shengye; Hooshyar, Hossein; Cairo, Ignasi; Repo, Sami; Ponci, Ferdinando; Della Giustina, Davide; Kulmala, Anna; Dedè, Alessio; Monti, Antonello; Del Rosario, Gerard; Vanfretti, Luigi; Garcia, Cristina Corchero.

In: Sustainable Energy, Grids and Networks, Vol. 15, 09.2018, p. 3-13.

Research output: Contribution to journal > Article > Scientific > peer-review

Dilute nitride triple junction solar cells for space applications : Progress towards highest AM0 efficiency. / Aho, Arto; Isoaho, Riku; Tukiainen, Antti; Gori, Gabriele; Campesato, Roberta; Guina, Mircea.

In: Progress in Photovoltaics: Research and Applications, Vol. 26, No. 19, 09.2018, p. 740-744.

Research output: Contribution to journal > Article > Scientific > peer-review

Lessons learnt from real-time monitoring of the low voltage distribution network. / Barbato, Antimo; Dedè, Alessio; Della Giustina, Davide; Massa, Giovanni; Angioni, Andrea; Lipari, Gianluca; Ponci, Ferdinando; Repo, Sami.

In: Sustainable Energy, Grids and Networks, Vol. 15, 09.2018, p. 76-85.

Research output: Contribution to journal > Article > Scientific > peer-review

Production of alkanes from CO₂ by engineered bacteria. / Lehtinen, Tapio; Virtanen, Henri; Santala, Suvi; Santala, Ville.

In: Biotechnology for Biofuels, Vol. 11, 228, 21.08.2018.

Research output: Contribution to journal > Article > Scientific > peer-review

Energy consumption of Finnish schools and daycare centers and the correlation to regulatory building permit values. / Ruusala, Annu; Laukkarinen, Anssi; Vinha, Juha.

In: Energy Policy, Vol. 119, 01.08.2018, p. 183-195.

Research output: Contribution to journal > Article > Scientific > peer-review

Selenate removal in biofilm systems : Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community. / Tan, Lea Chua; Espinosa-Ortiz, Erika J.; Nancharaiyah, Yarlagadda V.; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet Nl.

In: Journal of Chemical Technology and Biotechnology, Vol. 93, No. 8, 08.2018, p. 2380-2389.

Research output: Contribution to journal > Article > Scientific > peer-review

Design aspects of all atomic layer deposited TiO₂-Fe₂O₃ scaffold-absorber photoanodes for water splitting. / Hiltunen, Arto; Ruoko, Tero-Petri; Iivonen, Tomi; Lahtonen, Kimmo; Ali-Löytty, Harri; Sarlin, Essi; Valden, Mika; Leskelä, Markku; Tkachenko, Nikolai.

In: Sustainable Energy & Fuels, Vol. 2, No. 9, 31.07.2018, p. 2124-2130.

Research output: Contribution to journal > Article > Scientific > peer-review

Efficient method for the real-time contingency analysis of meshed HVDC power grids fed by VSC stations. / Castro, Luis M.; Acha, Enrique; Rodriguez-Rodriguez, Juan R.

In: IET Generation, Transmission and Distribution, Vol. 12, No. 13, 31.07.2018, p. 3158-3166.

Research output: Contribution to journal > Article > Scientific > peer-review

Mechanical stress analysis during a quench in CLIQ protected 16 T dipole magnets designed for the future circular collider. / Zhao, Junjie; Prioli, Marco; Stenvall, Antti; Salmi, Tiina; Gao, Yuanwen; Caiffi, Barbara; Lorin, Clement; Marinozzi, Vittorio; Farinon, Stefania; Sorbi, Massimo.

In: Physica C: Superconductivity and its Applications, Vol. 550, 15.07.2018, p. 27-34.

Research output: Contribution to journal > Article > Scientific > peer-review

Metabolic pairing of aerobic and anaerobic production in a one-pot batch cultivation. / Salmela, Milla; Lehtinen, Tapio; Efimova, Elena; Santala, Suvi; Mangayil, Rahul.

In: *Biotechnology for Biofuels*, Vol. 11, No. 1, 187, 03.07.2018.

Research output: Contribution to journal › Article › Scientific › peer-review

Cross-impact analysis of Finnish electricity system with increased renewables : Long-run energy policy challenges in balancing supply and consumption. / Panula-Ontto, Juha; Luukkanen, Jyrki; Kaivo-oja, Jari; O'Mahony, Tadhg; Vehmas, Jarmo; Valkealahti, Seppo; Björkqvist, Tomas; Korpela, Timo; Järventausta, Pertti; Majanne, Yrjö; Kojo, Matti; Aalto, Pami; Harsia, Pirkko; Kallioharju, Kari; Holttinen, Hannele; Repo, Sami.

In: *Energy Policy*, Vol. 118, 01.07.2018, p. 504-513.

Research output: Contribution to journal › Article › Scientific › peer-review

Improved modelling of electric loads for enabling demand response by applying physical and data-driven models : Project Response. / Koponen, Pekka; Hanninen, Seppo; Mutanen, Antti; Koskela, Juha; Rautiainen, Antti; Järventausta, Pertti; Niska, Harri; Kolehmainen, Mikko; Koivisto, Hannu.

2018 IEEE International Energy Conference, ENERGYCON 2018. IEEE, 2018. p. 1-6.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Online dynamic conductance estimation based maximum power point tracking of photovoltaic generators. / Sitbon, Moshe; Lineykin, Simon; Schacham, Shmuel; Suntio, Teuvo; Kuperman, Alon.

In: *Energy Conversion and Management*, Vol. 166, 15.06.2018, p. 687-696.

Research output: Contribution to journal › Article › Scientific › peer-review

Sustainable electric vehicle - Prosumer framework and policy mix. / Kotilainen, Kirsi; Mäkinen, Saku J.; Valta, Jussi.

2017 IEEE Innovative Smart Grid Technologies - Asia: Smart Grid for Smart Community, ISGT-Asia 2017. IEEE, 2018. p. 1-6.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Effects of wastewater constituents and operational conditions on the composition and dynamics of anodic microbial communities in bioelectrochemical systems. / Kokko, Marika; Epple, Stefanie; Gescher, Johannes; Kerzenmacher, Sven.

In: *Bioresource Technology*, Vol. 258, 01.06.2018, p. 376-389.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Role of Oxide Defects in ALD grown TiO₂ Coatings on Performance as Photoanode Protection Layer. / Saari, Jesse; Ali-Löytty, Harri; Valden, Mika.

2018. Paper presented at Optics & Photonics Days 2018, Jyväskylä, Finland.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Inoculum pretreatment differentially affects the active microbial community performing mesophilic and thermophilic dark fermentation of xylose. / Dessì, Paolo; Porca, Estefania; Frunzo, Luigi; Lakaniemi, Aino-Maija; Collins, Gavin; Esposito, Giovanni; Lens, Piet N.L.

In: *International Journal of Hydrogen Energy*, Vol. 43, No. 19, 10.05.2018, p. 9233-9245.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigating the kinetics and biofuel properties of *Alstonia congensis* and *Ceiba pentandra* via torrefaction. / Oluoti, Kehinde; Doddapaneni, Tharaka Rama K.C.; Richards, Tobias.

In: *Energy*, Vol. 150, 01.05.2018, p. 134-141.

Research output: Contribution to journal › Article › Scientific › peer-review

Coordinated voltage control as a replacement for passive network reinforcements-A case study. / Supponen, Antti; Repo, Sami; Kulmala, Anna.

2017 IEEE International Conference on Smart Grid Communications, SmartGridComm 2017. IEEE, 2018. p. 326-331.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Policy Influence on Consumers' Evolution into Prosumers—Empirical Findings from an Exploratory Survey in Europe. / Kotilainen, Kirsi; Saari, Ulla A.
In: Sustainability, Vol. 2018, No. 10, 186, 13.01.2018.
Research output: Contribution to journal > Article > Scientific > peer-review

A new method to assess the contribution of VSC-HVDC connected wind farms to the primary frequency control of power networks. / Castro, Luis M.; Acha, Enrique.
In: Electric Power Systems Research, Vol. 154, 2018, p. 48-58.
Research output: Contribution to journal > Article > Scientific > peer-review

A novel strategy for optimal placement of locally controlled voltage regulators in traditional distribution systems. / Attar, Mehdi; Homaei, Omid; Falaghi, Hamid; Siano, Pierluigi.
In: International Journal of Electrical Power and Energy Systems, Vol. 96, 2018, p. 11-22.
Research output: Contribution to journal > Article > Scientific > peer-review

Dynamic modeling and analysis of PCM-controlled DCM-operating buck converters-A reexamination. / Suntio, Teuvo.
In: Energies, Vol. 11, No. 5, en11051267, 2018, p. 1-18.
Research output: Contribution to journal > Review Article > Scientific > peer-review

Improved Light Trapping in Quantum Dot Solar Cells Using Double-sided Nanostructuring. / Elsehrawy, Farid; Aho, Timo; Niemi, Tapio; Guina, Mircea; Cappelluti, Federica.
Optics and Photonics for Energy and the Environment 2018. OSA - The Optical Society, 2018.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Light-trapping enhanced thin-film III-V quantum dot solar cells fabricated by epitaxial lift-off. / Cappelluti, F.; Kim, D.; van Eerden, M.; Cédola, A. P.; Aho, T.; Bissels, G.; Elsehrawy, F.; Wu, J.; Liu, H.; Mulder, P.; Bauhuis, G.; Schermer, J.; Niemi, T.; Guina, M.
In: Solar Energy Materials and Solar Cells, Vol. 181, 2018, p. 83-92.
Research output: Contribution to journal > Article > Scientific > peer-review

Techno-economic evaluation of integrating torrefaction with anaerobic digestion. / Doddapaneni, Tharaka Rama Krishna C.; Praveenkumar, Ramasamy; Tolvanen, Henrik; Rintala, Jukka; Konttinen, Jukka.
In: Applied Energy, Vol. 213, 2018, p. 272-284.
Research output: Contribution to journal > Article > Scientific > peer-review

Thermophilic versus mesophilic dark fermentation in xylose-fed fluidised bed reactors : Biohydrogen production and active microbial community. / Dessì, Paolo; Porca, Estefania; Waters, Nicholas R.; Lakaniemi, Aino-Maija; Collins, Gavin; Lens, Piet N.L.
In: International Journal of Hydrogen Energy, Vol. 43, No. 11, 2018, p. 5473-5485.
Research output: Contribution to journal > Article > Scientific > peer-review

Carbazole-based small molecule electron donors : Syntheses, characterization, and material properties. / Sippola, Roosa J.; Hadipour, Afshin; Kastinen, Tuuva; Vivo, Paola; Hukka, Terttu I.; Aernouts, Tom; Heiskanen, Juha P.
In: Dyes and Pigments, Vol. 150, j.dyepig.2017.11.014, 08.11.2017, p. 79-88.
Research output: Contribution to journal > Article > Scientific > peer-review

Effect of hydraulic retention time on continuous electricity production from xylose in up-flow microbial fuel cell. / Haavisto, Johanna M.; Kokko, Marika E.; Lay, Chyi-How; Puhakka, Jaakko A.
In: International Journal of Hydrogen Energy, Vol. 42, 01.11.2017, p. 27494-27502.
Research output: Contribution to journal > Article > Scientific > peer-review

Koulujen ja päiväkotien laskettu ja toteutunut energiankulutus. / Ruusala, Annu; Vinha, Juha.
Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere. ed. / Juha Vinha; Henna Kivioja. Vol. 1 Tampere : Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, 2017. p. 267-274 (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific

Kustannusoptimaaliset energiakorjaus- ja uusiutuvan energian tuotannon ratkaisut kunnallisissa palvelurakennuksissa. / Jokisalo, Juha; Sankelo, Paula; Sirén, Kai; Vinha, Juha.

Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere. ed. / Juha Vinha; Henna Kivioja. Vol. 1 Tampere : Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, 2017. p. 287-292.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

A demand-based nutrient utilization approach to urban biogas plant investment based on regional crop fertilization. /

Tampio, Elina; Lehtonen, Eeva; Kinnunen, Viljami; Mönkäre, Tiina; Ervasti, Satu; Kettunen, Riitta; Rasi, Saija; Rintala, Jukka.

In: Journal of Cleaner Production, Vol. 164, 15.10.2017, p. 19-29.

Research output: Contribution to journal › Article › Scientific › peer-review

Atomikerroskasvatusmenetelmällä kasvatetun titaanidioksidikalvon ominaisuudet valosähkökemiallisessa veden hajottamisessa. / Saari, Jesse.

2017. 74 p.

Research output: Book/Report › Master's Thesis › Scientific

Real-time hardware- and software-in-the-loop simulation of decentralised distribution network control architecture. /

Tuominen, Ville; Reponen, Hannu; Kulmala, Anna; Lu, Shengye; Repo, Sami.

In: IET Generation, Transmission and Distribution, Vol. 11, No. 12, 24.08.2017, p. 3057-3064.

Research output: Contribution to journal › Article › Scientific › peer-review

Exhaust emissions of non-road mobile machine : Real-world and laboratory studies with diesel and HVO fuels. / Pirjola, L. ; Rönkkö, T.; Saukko, E.; Parviainen, H.; Malinen, A.; Alanen, J.; Saveljeff, H.

In: Fuel, Vol. 202, 15.08.2017, p. 154-164.

Research output: Contribution to journal › Article › Scientific › peer-review

Electropolymerized polyazulene as active material in flexible supercapacitors. / Suominen, Milla; Lehtimäki, Suvi; Yewale, Rahul; Damlin, Pia; Tuukkanen, Sampo; Kvarnström, Carita.

In: Journal of Power Sources, Vol. 356, 15.07.2017, p. 181-190.

Research output: Contribution to journal › Article › Scientific › peer-review

Aspects of advancement of distribution tariffs for small consumers in Finland. / Lummi, Kimmo; Rautiainen, Antti;

Järventausta, Pertti; Huhta, Kaisa; Talus, Kim; Kojo, Matti.

2017 14th International Conference on the European Energy Market, EEM 2017. IEEE, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Attractiveness of demand response in the Nordic electricity market - Present state and future prospects. / Rautiainen, A.; Koskela, J.; Vilppo, O.; Supponen, A.; Kojo, M.; Toivanen, P.; Rinne, E.; Järventausta, P.

2017 14th International Conference on the European Energy Market, EEM 2017. IEEE, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Development options for distribution tariff structures in Finland. / Honkapuro, Samuli; Haapaniemi, Jouni; Haakana, Juha; Lassila, Jukka; Belonogova, Nadezda; Partanen, Jarmo; Lummi, Kimmo; Rautiainen, Antti; Supponen, Antti; Repo, Sami; Järventausta, Pertti.

2017 14th International Conference on the European Energy Market, EEM 2017. IEEE, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Understanding consumers' renewable energy behaviour beyond 'homo economicus' : An exploratory survey in four European countries. / Kotilainen, Kirsi; Valta, Jussi; Mäkinen, Saku J.; Järventausta, Pertti.

2017 14th International Conference on the European Energy Market, EEM 2017. IEEE, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Hafnium oxide thin films as a barrier against copper diffusion in solar absorbers. / Kotilainen, Minna; Krumpolec, Richard; Franta, Daniel; Souček, Pavel; Homola, Tomáš; Cameron, David C.; Vuoristo, Petri.
In: *Solar Energy Materials and Solar Cells*, Vol. 166, 01.07.2017, p. 140-146.
Research output: Contribution to journal › Article › Scientific › peer-review

Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges. / Baek, Jinseok; Umeyama, Tomokazu; Stranius, Kati; Yamada, Hiroki; Tkachenko, Nikolai V.; Imahori, Hiroshi.
In: *Journal of Physical Chemistry C*, Vol. 121, No. 25, 29.06.2017, p. 13952-13961.
Research output: Contribution to journal › Article › Scientific › peer-review

CFD based reactivity parameter determination for biomass particles of multiple size ranges in high heating rate devolatilization. / Niemelä, Niko P.; Tolvanen, Henrik; Saarinen, Teemu; Leppänen, Aino; Joronen, Tero.
In: *Energy*, Vol. 128, 01.06.2017, p. 676-687.
Research output: Contribution to journal › Article › Scientific › peer-review

Catalytic Activity of AuCu Clusters on MgO(100) : Effect of Alloy Composition for CO Oxidation. / Ma, Li; Laasonen, Kari; Akola, Jaakko.
In: *Journal of Physical Chemistry C*, Vol. 121, No. 20, 25.05.2017, p. 10876-10886.
Research output: Contribution to journal › Article › Scientific › peer-review

Geometric Structure and Chemical Ordering of Large AuCu Clusters : A Computational Study. / Goh, Jing-Qiang; Akola, Jaakko; Ferrando, Riccardo.
In: *Journal of Physical Chemistry C*, Vol. 121, No. 20, 25.05.2017, p. 10809-10816.
Research output: Contribution to journal › Article › Scientific › peer-review

The effects of calcium and potassium on CO₂ gasification of birch wood in a fluidized bed. / Kramb, Jason; Gómez-Barea, Alberto; DeMartini, Nikolai; Romar, Henrik; Doddapaneni, Tharaka Rama K. C.; Konttinen, Jukka.
In: *Fuel*, Vol. 196, 15.05.2017, p. 398-407.
Research output: Contribution to journal › Article › Scientific › peer-review

Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods : Aggregation Effects. / Virkki, Kirsi; Hakola, Hanna; Urbani, Maxence; Tejerina, Lara; Ince, Mine; Martínez-Díaz, M. Victoria; Torres, Tomás; Golovanova, Viktoria; Golovanov, Viacheslav; Tkachenko, Nikolai V.
In: *Journal of Physical Chemistry C*, Vol. 121, No. 17, 04.05.2017, p. 9594-9605.
Research output: Contribution to journal › Article › Scientific › peer-review

The IDE4L Project : Defining, Designing, and Demonstrating the Ideal Grid for All. / Repo, Sami; Ponci, Ferdinanda; Della Giustina, Davide; Alvarez, Amelia; Corchero Garcia, Cristina; Al-Jassim, Zaid; Amaris, Hortensia; Kulmala, Anna.
In: *IEEE POWER AND ENERGY MAGAZINE*, Vol. 15, No. 3, 01.05.2017, p. 41-51.
Research output: Contribution to journal › Article › Scientific › peer-review

On the Efficient Calculation of the Periodic Steady-State Response of Grid-Connected Wind Parks - Part I. / Garcia, Norberto; Acha, Enrique.
In: *IEEE Transactions on Sustainable Energy*, Vol. 8, No. 2, 01.04.2017, p. 458-467.
Research output: Contribution to journal › Article › Scientific › peer-review

A New Miniaturized Sensor for Ultra-Fast On-Board Soot Concentration Measurements. / Rostedt, Antti; Ntziachristos, Leonidas D.; Simonen, Pauli; Rönkkö, Topi; Samaras, Zissis C.; Hillamo, Risto; Janka, Kauko; Keskinen, Jorma.
In: *SAE International Journal of Engines*, Vol. 10, No. 4, 28.03.2017.
Research output: Contribution to journal › Article › Scientific › peer-review

Output power variation of different PV array configurations during irradiance transitions caused by moving clouds. / Lappalainen, Kari; Valkealahti, Seppo.
In: *Applied Energy*, Vol. 190, 15.03.2017, p. 902-910.
Research output: Contribution to journal › Article › Scientific › peer-review

Effects of PV array layout, electrical configuration and geographic orientation on mismatch losses caused by moving clouds. / Lappalainen, Kari; Valkealahti, Seppo.

In: Solar Energy, Vol. 144, 01.03.2017, p. 548-555.

Research output: Contribution to journal › Article › Scientific › peer-review

Determining maximum MPP-tracking sampling frequency for input-voltage-controlled PV-interfacing converter. / Kivimäki, Jyri; Sitbon, Moshe; Kolesnik, Sergei; Kuperman, Alon; Suntio, Teuvo.

8th Annual IEEE Energy Conversion Congress & Exposition (ECCE 2016). IEEE, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Cavitation erosion, slurry erosion and solid particle erosion performance of metal matrix composite (MMC) coatings sprayed with modern high velocity thermal spray processes. / Matikainen, Ville; Rubio, Silvia ; Ojala, Niko; Koivuluoto, Heli ; Schubert, Jan; Houdková, Sarka; Vuoristo, Petri.

Materials Science and Technology Conference and Exhibition 2017, MS and T 2017: October 8-12, 2017, Pittsburgh, Pennsylvania USA. Vol. 2 Association for Iron and Steel Technology, AISTECH, 2017. p. 1161-1163.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Chasing measurements for real-world emissions of city buses. / Järvinen, Anssi; Karjalainen, Panu; Bloss, Matthew; Potila, Outi; Simonen, Pauli; Kuuluvainen, Heino; Timonen, Hilikka; Saarikoski, Sanna; Niemi, Jarkko V.; Keskinen, Jorma; Rönkkö, Topi.

2017. Paper presented at European Aerosol Conference 2017, Zürich, Switzerland.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Controlling emissions of natural gas engines. / Lehtoranta, Kati; Murtonen, Timo; Vesala, Hannu; Koponen, Päivi; Alanen, Jenni; Kuittinen, Niina; Simonen, Pauli; Rönkkö, Topi; Saarikoski, Sanna; Timonen, Hilikka; Maunula, Teuvo; Kallinen, Kauko; Korhonen, Satu.

Proceedings of the Air and Waste Management Association's Annual Conference and Exhibition, AWMA2017. Air and Waste Management Association, 2017.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Cultivation of *Scenedesmus acuminatus* in different liquid digestates from anaerobic digestion of pulp and paper industry biosludge. / Tao, Ran; Lakaniemi, Aino-Maija; Rintala, Jukka A.

In: Bioresource Technology, Vol. 245, No. A, 2017, p. 706-713.

Research output: Contribution to journal › Article › Scientific › peer-review

Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System. / Kordmahaleh, Aidin Alinezhad; Naghashzadegan, Mohammad; Javaherdeh, Kourosh; Khoshgoftar, Mohammadreza.

In: International Journal of Photoenergy, Vol. 2017, 4210184, 2017.

Research output: Contribution to journal › Article › Scientific › peer-review

Numerical simulation and measurements of drying of Finnish concrete grades. / Sekki, Pauli; Karvinen, Timo.

In: Energy Procedia, Vol. 132, No. October, 2017, p. 729-734.

Research output: Contribution to journal › Article › Scientific › peer-review

Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems. / Baek, Jinseok; Umeyama, Tomokazu; Mizuno, Satoshi; Tkachenko, Nikolai V.; Imahori, Hiroshi.

In: Journal of Physical Chemistry C, Vol. 121, No. 39, 2017.

Research output: Contribution to journal › Article › Scientific › peer-review

Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut : 24.-26.10.2017, Tampere.

Seminaarijulkaisu 5 - Osa 1. / Vinha, Juha (Editor); Kivioja, Henna (Editor).

Tampere : Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, 2017. 370 p.

Research output: Book/Report › Anthology › Professional

Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut : 24.-26.10.2017, Tampere.

Seminaarijulkaisu 5 - Osa 2. / Vinha, Juha (Editor); Kivioja, Henna (Editor).

Tampere : Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, 2017. 256 p.
Research output: Book/Report > Anthology > Professional

Rakennusten rakennusfysikaalisen suunnittelun ja toteutuksen periaatteet. / Vinha, Juha.
Rakentajain kalenteri 2018. ed. / Anssi Koskenvesa; Jukka Lyytinen; Satu Laine. Rakennustieto Oy, 2017. p. 117-176
(Rakentajain kalenteri; Vol. 102).
Research output: Chapter in Book/Report/Conference proceeding > Chapter > Professional

Release of Potassium during Devolatilization of Spruce Bark. / Wang, Liang; Moilanen, Antero; Lehtinen, Jere; Konttinen, Jukka; Matas, Berta Guell.
In: Energy Procedia, Vol. 105, 2017, p. 1295-1301.
Research output: Contribution to journal > Article > Scientific > peer-review

Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions. / Ntziachristos, L.; Saukko, E.; Lehtoranta, K.; Rönkkö, T.; Timonen, H.; Simonen, P.; Karjalainen, P.; Keskinen, J.
In: Fuel, Vol. 186, 15.12.2016, p. 456-465.
Research output: Contribution to journal > Article > Scientific > peer-review

Thermal Modification of ALD Grown Titanium Oxide Ultra Thin Film for Photoanode Applications. / Hannula, Markku Kalevi; Lahtonen, Kimmo Tapio; Isotalo, Tero Jesse; Saari, Jesse Samuli; Valden, Mika Olavi.
2016. Paper presented at Symposium on Future Prospects for Photonics, Tampere, Finland.
Research output: Other conference contribution > Paper, poster or abstract > Scientific

Optimal control of pump rotational speed in filling and emptying a reservoir : minimum energy consumption with fixed time. / Lindstedt, Matti; Karvinen, Reijo.
In: Energy Efficiency, Vol. 9, No. 6, 12.2016, p. 1461-1474.
Research output: Contribution to journal > Article > Scientific > peer-review

Apparent velocity of shadow edges caused by moving clouds. / Lappalainen, Kari; Valkealahti, Seppo.
In: Solar Energy, Vol. 138, 15.11.2016, p. 47-52.
Research output: Contribution to journal > Article > Scientific > peer-review

Multicriteria selection in concept design of a divertor remote maintenance port in the EU DEMO reactor using an AHP participative approach. / Carfora, D.; Gironimo, G. Di; Esposito, G.; Huhtala, K.; Määttä, T.; Mäkinen, H.; Micciché, G.; Mozzillo, R.
In: Fusion Engineering and Design, Vol. 112, 15.11.2016, p. 324-331.
Research output: Contribution to journal > Article > Scientific > peer-review

A Unified Modeling Approach of Multi-Terminal VSC-HVDC Links for Dynamic Simulations of Large-Scale Power Systems. / Castro, Luis M.; Acha, Enrique.
In: IEEE Transactions on Power Systems, Vol. 31, No. 6, 01.11.2016, p. 5051-5060.
Research output: Contribution to journal > Article > Scientific > peer-review

Analysis of shading periods caused by moving clouds. / Lappalainen, Kari; Valkealahti, Seppo.
In: Solar Energy, Vol. 135, 01.10.2016, p. 188-196.
Research output: Contribution to journal > Article > Scientific > peer-review

Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood. / Kramb, Jason; Konttinen, Jukka; Backman, Rainer; Salo, Kari; Roberts, Michael.
In: Fuel, Vol. 181, 01.10.2016, p. 319-324.
Research output: Contribution to journal > Article > Scientific > peer-review

Exposure to biological and chemical agents at biomass power plants. / Laitinen, Sirpa; Laitinen, Juha; Fagernäs, Leena; Korpijärvi, Kirsi; Korpinen, Leena; Ojanen, Kari; Aatamila, Marjaleena; Jumpponen, Mika; Koponen, Hanna; Jokiniemi, Jorma.

In: Biomass & Bioenergy, Vol. 93, 01.10.2016, p. 78-86.
Research output: Contribution to journal > Article > Scientific > peer-review

Power flow solutions of AC/DC micro-grid structures. / Acha, Enrique; Rubbrecht, Tom; Castro, Luis M.
19th Power Systems Computation Conference, PSCC 2016. IEEE, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Comparison of photovoltaic and wind generators as dynamic input sources to power processing interfaces. / Kolesnik, S.; Sitbon, M.; Agranovich, G.; Kuperman, A.; Suntio, T.
2016 2nd International Conference on Intelligent Energy and Power Systems, IEPS 2016 - Conference Proceedings. IEEE, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Cost-causation based approach in forming power-based distribution network tariff for small customers. / Lummi, Kimmo; Rautiainen, Antti; Järventausta, Pertti; Heine, Pirjo; Lehtinen, Jouni; Hyvärinen, Markku.
2016 13th International Conference on the European Energy Market, EEM 2016. IEEE COMPUTER SOCIETY PRESS, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Network impacts of distribution power tariff schemes with active customers. / Supponen, Antti; Rautiainen, Antti; Lummi, Kimmo; Järventausta, Pertti; Repo, Sami.
2016 13th International Conference on the European Energy Market, EEM 2016. IEEE COMPUTER SOCIETY PRESS, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

The role of residential prosumers initiating the energy innovation ecosystem to future flexible energy system. / Kotilainen, Kirsi; Mäkinen, Saku J.; Järventausta, Pertti; Rautiainen, Antti; Markkula, Joni.
2016 13th International Conference on the European Energy Market, EEM 2016. IEEE COMPUTER SOCIETY PRESS, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A generalized frame of reference for the incorporation of, multi-terminal VSC-HVDC systems in power flow solutions. / Acha, Enrique; Castro, Luis M.
In: Electric Power Systems Research, Vol. 136, 01.07.2016, p. 415-424.
Research output: Contribution to journal > Article > Scientific > peer-review

Modeling of the catalytic effects of potassium and calcium on spruce wood gasification in CO₂. / Kramb, Jason; DeMartini, Nikolai; Perander, Magnus; Moilanen, Antero; Kontinen, Jukka.
In: Fuel Processing Technology, Vol. 148, 01.07.2016, p. 50-59.
Research output: Contribution to journal > Article > Scientific > peer-review

Liquid fertilizer products from anaerobic digestion of food waste : Mass, nutrient and energy balance of four digestate liquid treatment systems. / Tampio, Elina; Martinen, Sanna; Rintala, Jukka.
In: Journal of Cleaner Production, Vol. 125, 07.2016, p. 22-32.
Research output: Contribution to journal > Article > Scientific > peer-review

Stand-Off Radioluminescence Mapping of Alpha Emitters under Bright Lighting. / Sand, Johan; Nicholl, Adrian; Hrncek, Erich; Toivonen, Harri; Toivonen, Juha; Peräjrv, Kari.
In: IEEE Transactions on Nuclear Science, Vol. 63, No. 3, 01.06.2016, p. 1777-1783.
Research output: Contribution to journal > Article > Scientific > peer-review

Correlation of wear and work in dual pivoted jaw crusher tests. / Terva, Juuso; Valtonen, Kati; Siitonen, Pekka; Kuokkala, Veli-Tapani.
The 17th Nordic Symposium on Tribology - NORDTRIB 2016. 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Power quality in distribution networks with electric vehicle charging - A research methodology based on field tests and real data. / Supponen, Antti; Rautiainen, Antti; Markkula, Joni; Mäkinen, Antti; Järventausta, Pertti; Repo, Sami.
2016 11th International Conference on Ecological Vehicles and Renewable Energies, EVER 2016. IEEE, 2016.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Influence of As/group-III flux ratio on defects formation and photovoltaic performance of GaInNAs solar cells. / Polojärvi, Ville; Aho, Arto; Tukiainen, Antti; Raappana, Marianna; Aho, Timo; Schramm, Andreas; Guina, Mircea.
In: Solar Energy Materials and Solar Cells, Vol. 149, 01.05.2016, p. 213-220.
Research output: Contribution to journal > Article > Scientific > peer-review

Effect of Hole Transporting Material on Charge Transfer Processes in Zinc Phthalocyanine Sensitized ZnO Nanorods. / Hakola, Hanna; Sariola-Leikas, Essi; Efimov, Alexander; Tkachenko, Nikolai V.
In: Journal of Physical Chemistry C, Vol. 120, No. 13, 21.04.2016, p. 7044-7051.
Research output: Contribution to journal > Article > Scientific > peer-review

Antireflection composite coatings for organic solar cells. / Suleimanov, S. Kh; Berger, P.; Dyskin, V. G.; Dzhanklich, M. U.; Bugakov, A. G.; Dudko, O. A.; Kulagina, N. A.; Kim, M.
In: Applied Solar Energy (English translation of Geliotekhnika), Vol. 52, No. 2, 01.04.2016, p. 157-158.
Research output: Contribution to journal > Article > Scientific > peer-review

Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction. / Ali-Löytty, Harri; Louie, Mary W.; Singh, Meenesh R.; Li, Lin; Sanchez Casalongue, Hernan G.; Ogasawara, Hirohito; Crumlin, Ethan J.; Liu, Zhi; Bell, Alexis T.; Nilsson, Anders; Friebel, Daniel.
In: Journal of Physical Chemistry C, Vol. 120, No. 4, 04.02.2016, p. 2247-2253.
Research output: Contribution to journal > Article > Scientific > peer-review

Planning land use for biogas energy crop production : The potential of cutaway peat production lands. / Laasasenaho, Kari; Lensu, Anssi; Rintala, Jukka.
In: Biomass & Bioenergy, Vol. 85, 01.02.2016, p. 355-362.
Research output: Contribution to journal > Article > Scientific > peer-review

Microbial electrochemical technologies with the perspective of harnessing bioenergy : Maneuvering towards upscaling. / Butti, Sai Kishore; Velvizhi, G.; Sulonen, Mira L K; Haavisto, Johanna M.; Oguz Koroglu, Emre; Yusuf Cetinkaya, Afsin; Singh, Surya; Arya, Divyanshu; Annie Modestra, J.; Vamsi Krishna, K.; Verma, Anil; Ozkaya, Bestami; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.; Venkata Mohan, S.
In: Renewable and Sustainable Energy Reviews, Vol. 53, 01.2016, p. 462-476.
Research output: Contribution to journal > Review Article > Scientific > peer-review

High efficiency dilute nitride solar cells : Simulations meet experiments. / Tukiainen, A.; Aho, A.; Polojärvi, V.; Ahorinta, R.; Guina, M.
In: Journal of Green Engineering, Vol. 5, No. 3-4, 8, 2016, p. 113-132.
Research output: Contribution to journal > Article > Scientific > peer-review

Influence of temperature-induced copper diffusion on degradation of selective chromium oxy-nitride solar absorber coatings. / Kotilainen, M.; Honkanen, M.; Mizohata, K.; Vuoristo, P.
In: Solar Energy Materials and Solar Cells, Vol. 145, 2016, p. 323-332.
Research output: Contribution to journal > Article > Scientific > peer-review

Roll-to-roll application of photocatalytic TiO₂ nanoparticles for printed functionality. / Saarinen, J. J.; Valtakari, D.; Bollström, R.; Stepien, M.; Haapanen, J.; Mäkelä, J. M.; Toivakka, M.
Advanced Manufacturing, Electronics and Microsystems: TechConnect Briefs 2016. Vol. 4 TechConnect, 2016. p. 47-50.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

The formation and physical properties of the particle emissions from a natural gas engine. / Alanen, Jenni; Saukko, Erkka; Lehtoranta, Kati; Murtonen, Timo; Timonen, Hilikka; Hillamo, Risto; Karjalainen, Panu; Kuuluvainen, Heino; Harra, Juha; Keskinen, Jorma; Rönkkö, Topi.
In: Fuel, Vol. 162, 15.12.2015, p. 155-161.

Research output: Contribution to journal › Article › Scientific › peer-review

Metabolic engineering of *Acinetobacter baylyi* ADP1 for removal of *Clostridium butyricum* growth inhibitors produced from lignocellulosic hydrolysates. / Kannisto, Matti S.; Mangayil, Rahul K.; Shrivastava-Bhattacharya, Ankita; Pletschke, Brett I.; Karp, Matti T.; Santala, Ville P.

In: *Biotechnology for Biofuels*, Vol. 8, No. 1, 198, 01.12.2015.

Research output: Contribution to journal › Article › Scientific › peer-review

Single-source multibattery solar charger : Case study and implementation issues. / Gadelovits, Shlomo; Sitbon, Moshe; Suntio, Teuvo; Kuperman, Alon.

In: *Progress in Photovoltaics: Research and Applications*, Vol. 23, No. 12, 25.11.2015, p. 1916-1928.

Research output: Contribution to journal › Article › Scientific › peer-review

Power generation in fed-batch and continuous up-flow microbial fuel cell from synthetic wastewater. / Lay, Chyi-How; Kokko, Marika E.; Puhakka, Jaakko A.

In: *Energy*, Vol. 91, 01.11.2015, p. 235-241.

Research output: Contribution to journal › Article › Scientific › peer-review

Suboptimal search strategies with bounded computational complexity to solve long-horizon direct model predictive control problems. / Karamanakos, Petros; Geyer, Tobias; Kennel, Ralph.

2015 IEEE Energy Conversion Congress and Exposition, ECCE 2015. Institute of Electrical and Electronics Engineers Inc., 2015. p. 334-341.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Construction of an Interconnected Nanostructured Carbon Black Network : Development of Highly Stretchable and Robust Elastomeric Conductors. / Bhagavatheswaran, Eshwaran Subramani; Parsekar, Meenali; Das, Amit; Le, Hai Hong; Wiessner, Sven; Stöckelhuber, Klaus Werner; Schmaucks, Gerd; Heinrich, Gert.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 37, 17.09.2015, p. 21723-21731.

Research output: Contribution to journal › Article › Scientific › peer-review

Compensation of PV generator output power fluctuations with energy storage systems. / Schnabel, Julius; Valkealahti, Seppo.

31st European Photovoltaic Solar Energy Conference and Exhibition (31st EU PVSEC), 14– 18 September, 2015, Hamburg, Germany. 2015. p. 2177-2181.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Recognition of shading events caused by moving clouds and determination of shadow velocity from solar radiation measurements. / Lappalainen, Kari; Valkealahti, Seppo.

31st European Photovoltaic Solar Energy Conference and Exhibition (31st EU PVSEC), 14– 18 September, 2015, Hamburg, Germany . 2015. p. 1568-1573.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Superatom Model for Ag-S Nanocluster with Delocalized Electrons. / Goh, Jing Qiang; Akola, Jaakko.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 36, 10.09.2015, p. 21165-21172.

Research output: Contribution to journal › Article › Scientific › peer-review

Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel. / Bajamundi, Cyril Jose E; Vainikka, Pasi; Hedman, Merja; Silvennoinen, Jaani; Heinanen, Teemu; Taipale, Raili; Konttinen, Jukka.

In: *Fuel*, Vol. 155, 01.09.2015, p. 25-36.

Research output: Contribution to journal › Article › Scientific › peer-review

Electrospun Black Titania Nanofibers : Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance. / Lepcha, A.; Maccato, C.; Mettenböcker, A.; Andreu, T.; Mayrhofer, L.; Walter, M.; Olthof, S.; Ruoko, T. P.; Klein, A.; Moseler, M.; Meerholz, K.; Morante, J. R.; Barreca, D.; Mathur, S.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 33, 20.08.2015, p. 18835-18842.

Research output: Contribution to journal › Article › Scientific › peer-review

Cascoded Power Stage With Automatic Dead Time Generation. / Filanovsky, I.M.; Järvenhaara, J.K.; Tchamov, N.T.
IEEE 58th International Midwest Symposium on Circuits and Systems (MWSCAS), Fort Collins, CO, U.S.A, Aug. 2-5, 2015. IEEE, 2015.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Low-Voltage DC Distribution-Utilization Potential in a Large Distribution Network Company. / Hakala, Tomi; Lähdeaho, Tommi; Järventausta, Pertti.

In: IEEE Transactions on Power Delivery, Vol. 30, No. 4, 01.08.2015, p. 1694-1701.

Research output: Contribution to journal > Article > Scientific > peer-review

Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids. / Virkki, Kirsi; Demir, Sinem; Lemmetyinen, Helge; Tkachenko, Nikolai V.

In: Journal of Physical Chemistry C, Vol. 119, No. 31, 23.07.2015, p. 17561-17572.

Research output: Contribution to journal > Article > Scientific > peer-review

Divertor remote handling for DEMO : Concept design and preliminary FMECA studies. / Carfora, D.; Di Gironimo, G.; Järvenpää, J.; Huhtala, K.; Määttä, T.; Siuko, M.

In: Fusion Engineering and Design, Vol. 98-99, 09.07.2015, p. 1437-1441.

Research output: Contribution to journal > Article > Scientific > peer-review

Synthesis and study of electrochemical and optical properties of substituted perylenemonoimides in solutions and on solid surfaces. / Ahmed, Zafar; George, Lijo; Hiltunen, Arto; Lemmetyinen, Helge; Hukka, Terttu; Efimov, Alexander.

In: Journal of Materials Chemistry A, Vol. 3, No. 25, 07.07.2015, p. 13332-13339.

Research output: Contribution to journal > Article > Scientific > peer-review

Improved adaptive input voltage control of a solar array interfacing current mode controlled boost power stage. / Sitbon, Moshe; Schacham, Shmuel; Suntio, Teuvo; Kuperman, Alon.

In: Energy Conversion and Management, Vol. 98, 01.07.2015, p. 369-375.

Research output: Contribution to journal > Article > Scientific > peer-review

A real-time electrically controlled active matching circuit utilizing genetic algorithms for biomedical WPT applications. /

Bito, Jo; Jeong, Soyeon; Tentzeris, Manos M.

2015 IEEE Wireless Power Transfer Conference, WPTC 2015. Institute of Electrical and Electronics Engineers Inc., 2015. 7140168.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Catalytic effect of Ca and K on CO₂ gasification of spruce wood char. / Perander, M.; DeMartini, N.; Brink, A.; Kramb, J.; Karlström, O.; Hemming, J.; Moilanen, A.; Konttinen, J.; Hupa, M.

In: Fuel, Vol. 150, 15.06.2015, p. 464-472.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of Multilevel Inverter Supply on Core Losses in Magnetic Materials and Electrical Machines. / Rasilo, Paavo; Salem, Aboubakr; Abdallah, Ahmed; De Belie, Frederik; Dupré, Luc; Melkebeek, Jan A.

In: IEEE Transactions on Energy Conversion, Vol. 30, No. 2, 6980114, 01.06.2015, p. 736-744.

Research output: Contribution to journal > Article > Scientific > peer-review

A novel VSC-HVDC link model for dynamic power system simulations. / Castro, Luis M.; Acha, Enrique; Fuerte-Esquivel, Claudio R.

In: Electric Power Systems Research, Vol. 126, 30.05.2015, p. 111-120.

Research output: Contribution to journal > Article > Scientific > peer-review

Characteristics and agronomic usability of digestates from laboratory digesters treating food waste and autoclaved food waste. / Tampio, Elina; Ervasti, Satu; Rintala, Jukka.

In: Journal of Cleaner Production, Vol. 94, 01.05.2015, p. 86-92.

Research output: Contribution to journal > Article > Scientific > peer-review

Engineered nanomaterials reduce but do not resolve life cycle environmental impacts of power capacitors. / Alaviitala, Tiina; Mattila, Tuomas J.

In: *Journal of Cleaner Production*, Vol. 93, 15.04.2015, p. 347-353.

Research output: Contribution to journal › Article › Scientific › peer-review

Fermentative metabolism of an anaerobic, thermophilic consortium on plant polymers and commercial paper samples. /

Carver, Sarah M.; Nelson, Michael C.; Yu, Zhongtang; Tuovinen, Olli H.

In: *Biomass & Bioenergy*, Vol. 75, 01.04.2015, p. 11-22.

Research output: Contribution to journal › Article › Scientific › peer-review

Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components. / Mangayil, Rahul;

Aho, Tommi; Karp, Matti; Santala, Ville.

In: *Renewable Energy*, Vol. 75, 01.03.2015, p. 583-589.

Research output: Contribution to journal › Article › Scientific › peer-review

Silver sulfide nanoclusters and the superatom model. / Goh, Jing-Qiang; Malola, Sami; Häkkinen, Hannu; Akola, Jaakko.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 3, 22.01.2015, p. 1583-1590.

Research output: Contribution to journal › Article › Scientific › peer-review

Driving pattern analysis of Nordic region based on National Travel Surveys for electric vehicle integration. / Liu, Zhaoxi;

Wu, Qiuwei; Christensen, Linda; Rautiainen, Antti; Xue, Yusheng.

In: *Journal of Modern Power Systems and Clean Energy*, Vol. 3, No. 2, 01.01.2015, p. 180-189.

Research output: Contribution to journal › Article › Scientific › peer-review

Comparison of Detection Techniques for Multipath Propagation of Pseudolite Signals Used in Dense Industrial Environments. / Alexandru, Rusu-Cassandra; Lohan, Elena-Simona.

In: *Procedia Engineering*, Vol. 100, No. C, 2015, p. 1294-1300.

Research output: Contribution to journal › Article › Scientific › peer-review

Driving forces of road freight CO₂ in 2030. / Liimatainen, Heikki; Hovi, Inger Beate; Arvidsson, Niklas; Nykänen, Lasse.

In: *International Journal of Physical Distribution and Logistics Management*, Vol. 45, No. 3, 2015, p. 260-285.

Research output: Contribution to journal › Article › Scientific › peer-review

Enquête de la variabilité cycle-cycle du NO dans la combustion homogène. / Karvountzis-Kontakiotis, A.; Ntziachristos, L.

In: *OIL AND GAS SCIENCE AND TECHNOLOGY : REVUE DE L'INSTITUT FRANCAIS DU PETROLE*, Vol. 70, No. 1, 2015, p. 111-123.

Research output: Contribution to journal › Article › Scientific › peer-review

Interfacing renewable energy sources for maximum power transfer-Part II : Dynamics. / Kolesnik, Sergei; Sitbon, Moshe; Gadelovits, Shlomo; Suntio, Teuvo; Kuperman, Alon.

In: *Renewable and Sustainable Energy Reviews*, Vol. 51, 2015, p. 1771-1783.

Research output: Contribution to journal › Article › Scientific › peer-review

MBE GROWN GaInNAsSb MULTIJUNCTION SOLAR CELLS: PATH TOWARDS 50% EFFICIENCY. / Aho, Arto Johannes; Polojärvi, Ville Valtteri; Aho, Timo Antero; Raappana, Marianna Jenni Sofia; Tukiainen, Antti Kalevi; Guina, Mircea Dorel.

18th European Molecular Beam Epitaxy Workshop. Canazei, Italy. 2015.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

On the benefit of long-horizon direct model predictive control for drives with LC filters. / Geyer, Tobias; Karamanakos, Petros; Kennel, Ralph.

2014 IEEE Energy Conversion Congress and Exposition, ECCE 2014. Institute of Electrical and Electronics Engineers Inc., 2014. p. 3520-3527.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Reformulation of the long-horizon direct model predictive control problem to reduce the computational effort. /

Karamanakos, Petros; Geyer, Tobias; Kennel, Ralph.

2014 IEEE Energy Conversion Congress and Exposition, ECCE 2014. Institute of Electrical and Electronics Engineers Inc., 2014. p. 3512-3519.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Intrinsic momentum transport in up-down asymmetric tokamaks. / Ball, Justin; Parra, Felix I.; Barnes, Michael; Dorland, William; Hammett, Gregory W.; Rodrigues, Paulo; Loureiro, Nuno F.

In: PLASMA PHYSICS AND CONTROLLED FUSION, Vol. 56, No. 9, 095014, 01.09.2014.

Research output: Contribution to journal › Article › Scientific › peer-review

Variable switching point predictive torque control of induction machines. / Karamanakos, Petros; Stolze, Peter; Kennel, Ralph M.; Manias, Stefanos; Du Toit Mouton, Hendrik.

In: IEEE Journal of Emerging and Selected Topics in Power Electronics, Vol. 2, No. 2, 06.2014, p. 285-295.

Research output: Contribution to journal › Article › Scientific › peer-review

Bioprocessing of enhanced cellulase production from a mutant of Trichoderma asperellum RCK2011 and its application in hydrolysis of cellulose. / Raghuwanshi, Sanjeev; Deswal, Deepa; Karp, Matti; Kuhad, Ramesh Chander.

In: Fuel, Vol. 124, 15.05.2014, p. 183-189.

Research output: Contribution to journal › Article › Scientific › peer-review

Composition dependent growth dynamics in molecular beam epitaxy of GaInNAs solar cells. / Aho, Arto; Polojärvi, Ville; Korpijärvi, Ville Markus; Salmi, Joel; Tukiainen, Antti; Laukkanen, Pekka; Guina, Mircea.

In: Solar Energy Materials and Solar Cells, Vol. 124, 05.2014, p. 150-158.

Research output: Contribution to journal › Article › Scientific › peer-review

Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile Caloramator celer : Kinetic, metabolic and transcription analyses. / Ciranna, Alessandro; Ferrari, Roberto; Santala, Ville; Karp, Matti.

In: International Journal of Hydrogen Energy, Vol. 39, No. 12, 15.04.2014, p. 6391-6401.

Research output: Contribution to journal › Article › Scientific › peer-review

In-use vs. type-approval fuel consumption of current passenger cars in Europe. / Ntziachristos, L.; Mellios, G.; Tsokolis, D.; Keller, M.; Hausberger, S.; Ligterink, N. E.; Dilara, P.

In: Energy Policy, Vol. 67, 04.2014, p. 403-411.

Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication of ssDNA/oligo(ethylene glycol) monolayers by promoted exchange reaction with thiol and disulfide substituents. / Khan, M. Nuruzzaman; Zharnikov, Michael.

In: Journal of Physical Chemistry C, Vol. 118, No. 6, 13.02.2014, p. 3093-3101.

Research output: Contribution to journal › Article › Scientific › peer-review

Comparison of finite-element-based state-space models for PM synchronous machines. / Rasilo, Paavo; Lemesle, Marc Antoine; Belahcen, Anouar; Arkkio, Antero; Hinkkanen, Marko.

In: IEEE Transactions on Energy Conversion, Vol. 29, No. 2, 2014, p. 535-543.

Research output: Contribution to journal › Article › Scientific › peer-review

Design driven world of cellulose-from bulk to luxury? / Qvintus, Pia; Kataja, Kirsi; Heikkilä, Pirjo; Salmela, Juha; Lehmonen, Jani; Ketoja, Jukka; Hänninen, Tuomas; Harlin, Ali; Härkäsalmi, Tiina; Vuorinen, Jyrki; Vuorinen, Tapani.

Fibre Value Chain Conference and Expo 2014: Pulp and Paper Bioenergy Bioproducts. Appita Inc., 2014. p. 67-74.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Nanocellulose aerogel membranes for optimal electrolyte filling in dye solar cells. / Miettunen, Kati; Vapaavuori, Jaana; Tiihonen, Armi; Poskela, Aapo; Lahtinen, Panu; Halme, Janne; Lund, Peter.

In: NANO ENERGY, Vol. 8, 2014, p. 95-102.

Research output: Contribution to journal › Article › Scientific › peer-review

Nickel-based HVOF coatings promoting high temperature corrosion resistance of biomass-fired power plant boilers. / Oksa, Maria; Auerkari, Pertti; Salonen, Jorma; Varis, Tommi.
In: Fuel Processing Technology, Vol. 125, 2014, p. 236-245.
Research output: Contribution to journal > Article > Scientific > peer-review

Scanner abdominal : Étude comparative de l'exposition patient en routine clinique sur des appareils avec et sans reconstruction itérative. / Gomes, M.; Leroy, C.; Lemaire, S.; Marmin, C.; Mordon, S.; Ernst, O.
In: Radioprotection, Vol. 49, No. 1, 2014, p. 35-41.
Research output: Contribution to journal > Article > Scientific > peer-review

Software design for simulating microbial bioprocesses in bioreactor. / Nikhil, ; Puhakka, J. A.; Visa, A.; Yli-Harja, O.
6th International Conference on Environmental Informatics, ISEIS 2007. International Society for Environmental Information Sciences, 2014. 60700018.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Direct model predictive current control strategy of dc-dc boost converters. / Karamanakos, Petros; Geyer, Tobias; Manias, Stefanos.
In: IEEE Journal of Emerging and Selected Topics in Power Electronics, Vol. 1, No. 4, 01.12.2013, p. 337-346.
Research output: Contribution to journal > Article > Scientific > peer-review

Fabrication of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation. / Khan, M. Nuruzzaman; Zharnikov, Michael.
In: Journal of Physical Chemistry C, Vol. 117, No. 47, 27.11.2013, p. 24883-24893.
Research output: Contribution to journal > Article > Scientific > peer-review

Non-sterile process for biohydrogen and 1,3-propanediol production from raw glycerol. / Kivistö, Anniina; Santala, Ville; Karp, Matti.
In: International Journal of Hydrogen Energy, Vol. 38, No. 27, 10.09.2013, p. 11749-11755.
Research output: Contribution to journal > Article > Scientific > peer-review

Prospecting hydrogen production of Escherichia coli by metabolic network modeling. / Seppälä, Jenni J.; Larjo, Antti; Aho, Tommi; Yli-Harja, Olli; Karp, Matti T.; Santala, Ville.
In: International Journal of Hydrogen Energy, Vol. 38, No. 27, 10.09.2013, p. 11780-11789.
Research output: Contribution to journal > Article > Scientific > peer-review

Model predictive control of the interleaved dc-dc boost converter with coupled inductors. / Karamanakos, Petros; Geyer, Tobias; Manias, Stefanos.
2013 15th European Conference on Power Electronics and Applications, EPE 2013. 2013. 6632006.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Renewable vs. traditional energy management solutions - A Finnish hospital facility case. / Kantola, Mikko; Saari, Arto.
In: Renewable Energy, Vol. 57, 09.2013, p. 539-545.
Research output: Contribution to journal > Article > Scientific > peer-review

Variable switching point predictive torque control for the three-level neutral point clamped inverter. / Stolze, Peter; Karamanakos, Petros; Kennel, Ralph; Manias, Stefanos; Mouton, Toit.
2013 15th European Conference on Power Electronics and Applications, EPE 2013. 2013. 6631894.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Irradiation promoted exchange reaction with disulfide substituents. / Khan, M. Nuruzzaman; Zharnikov, Michael.
In: Journal of Physical Chemistry C, Vol. 117, No. 28, 18.07.2013, p. 14534-14543.
Research output: Contribution to journal > Article > Scientific > peer-review

Organic silicon compounds in biogases produced from grass silage, grass and maize in laboratory batch assays. / Rasi, S.; Seppälä, M.; Rintala, J.
In: Energy, Vol. 52, 01.04.2013, p. 137-142.
Research output: Contribution to journal › Article › Scientific › peer-review

Application of the Pegasor Particle Sensor for the Measurement of Mass and Particle Number Emissions. / Ntziachristos, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Janka, Kauko; Tikkanen, Juha.
In: SAE International Journal of Fuels and Lubricants, Vol. 6, No. 2, 04.2013.
Research output: Contribution to journal › Article › Scientific › peer-review

Use of a Catalytic Stripper as an Alternative to the Original PMP Measurement Protocol. / Ntziachristos, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Giechaskiel, Barouch; Bergmann, Alexander.
In: SAE International Journal of Fuels and Lubricants, Vol. 6, No. 2, 04.2013.
Research output: Contribution to journal › Article › Scientific › peer-review

Attitude-behaviour gap in energy issues : Case study of three different Finnish residential areas. / Valkila, N.; Saari, A.
In: ENERGY FOR SUSTAINABLE DEVELOPMENT, Vol. 17, No. 1, 02.2013, p. 24-34.
Research output: Contribution to journal › Article › Scientific › peer-review

Mismatch losses in PV power generators caused by partial shading due to clouds. / Lobera, D. Torres; Valkealahti, S.
2013 4th IEEE International Symposium on Power Electronics for Distributed Generation Systems, PEDG 2013 - Conference Proceedings. IEEE COMPUTER SOCIETY PRESS, 2013. 6785587.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Orientation insensitive power transfer by magnetic resonance for mobile devices. / Jonah, Olutola; Georgakopoulos, Stavros V.; Tentzeris, Manos M.
2013 IEEE Wireless Power Transfer, WPT 2013. 2013. p. 5-8 6556868.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Roll-to-roll atomic layer deposition for flexible substrates. / Lahtinen, K.; Maydannik, P.; Kääriäinen, T.; Seppänen, T.; Cameron, D. C.; Johansson, P.; Kraft, M.; Kuusipalo, J.
TAPPI International Conference on Nanotechnology 2013. TAPPI Press, 2013. p. 726-739.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Wear resistance of nanoparticle coatings on paperboard. / Stepien, Milena; Chinga-Carrasco, Gary; Saarinen, Jarkko J.; Teisala, Hannu; Tuominen, Mikko; Aromaa, Mikko; Haapanen, Janne; Kuusipalo, Jurkka; Mäkelä, Jyrki M.; Toivakka, Martti.
TAPPI International Conference on Nanotechnology 2013. TAPPI Press, 2013. p. 821-829.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Methane production from maize in Finland - Screening for different maize varieties and plant parts. / Seppälä, Mari; Pyykkönen, Ville; Laine, Antti; Rintala, Jukka.
In: Biomass & Bioenergy, Vol. 46, No. November, 11.2012, p. 282-290.
Research output: Contribution to journal › Article › Scientific › peer-review

Model predictive control of the internal voltages of a five-level active neutral point clamped converter. / Kieferndorf, Frederick; Karamanakos, Petros; Bader, Philipp; Oikonomou, Nikolaos; Geyer, Tobias.
2012 IEEE Energy Conversion Congress and Exposition, ECCE 2012. 2012. p. 1676-1683.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Model predictive pulse pattern control for the five-level active neutral point clamped inverter. / Oikonomou, Nikolaos; Gutscher, Christof; Karamanakos, Petros; Kieferndorf, Frederick; Geyer, Tobias.
2012 IEEE Energy Conversion Congress and Exposition, ECCE 2012. 2012. p. 129-136.
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Impact of biodiesel application at various blending ratios on passenger cars of different fueling technologies. /

Kousoulidou, Marina; Ntziachristos, Leonidas; Fontaras, Georgios; Martini, Giorgio; Dilara, Panagiota; Samaras, Zissis.
In: Fuel, Vol. 98, 08.2012, p. 88-94.

Research output: Contribution to journal > Article > Scientific > peer-review

Consumer panel on the readiness of finns to behave in a more pro-environmental manner. /

Valkila, Noora; Saari, Arto.
In: Sustainability, Vol. 4, No. 7, 07.2012, p. 1561-1579.

Research output: Contribution to journal > Article > Scientific > peer-review

A first principles study of water adsorption on α -Pu (0 2 0) surface. /

Wang, Jianguang; Ray, Asok K.
In: Journal of Nuclear Materials, Vol. 424, No. 1-3, 05.2012, p. 138-145.

Research output: Contribution to journal > Article > Scientific > peer-review

Demonstration of increased lipid accumulation potential of stigeoclonium sp., Kütz. BUM11007 under nitrogen starved regime : A new source of lipids for biodiesel production. /

Praveenkumar, Ramasamy; Johny, Kamarasu; MubarakAli, Davoodbhasha; Vijayan, Durairaj; Thajuddin, Nooruddin; Gunasekaran, Muthukumar.

In: Journal of Biobased Materials and Bioenergy, Vol. 6, No. 2, 04.2012, p. 209-213.

Research output: Contribution to journal > Article > Scientific > peer-review

Financial viability of energy-efficiency measures in a new detached house design in Finland. /

Saari, Arto; Kalamees, Targo; Jokisalo, Juha; Michelsson, Rasmus; Alanne, Kari; Kurnitski, Jarek.

In: Applied Energy, Vol. 92, 04.2012, p. 76-83.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of nutrient deprivations on lipid accumulation in a dominant indigenous microalga Chlorella sp., BUM11008 : Evaluation for biodiesel production. /

Praveenkumar, Ramasamy; Shameera, Kalifulla; Mahalakshmi, Gopalakrishnan; Akbarsha, Mohammad Abdulkader; Thajuddin, Nooruddin.

In: Biomass & Bioenergy, Vol. 37, 02.2012, p. 60-66.

Research output: Contribution to journal > Article > Scientific > peer-review

Surface-relief gratings and stable birefringence inscribed using light of broad spectral range in supramolecular polymer-bisazobenzene complexes. /

Koskela, Jenni E.; Vapaavuori, Jaana; Hautala, Juho; Priimagi, Arri; Faul, Charl F J; Kaivola, Matti; Ras, Robin H A.

In: Journal of Physical Chemistry C, Vol. 116, No. 3, 26.01.2012, p. 2363-2370.

Research output: Contribution to journal > Article > Scientific > peer-review

High temperature oxidation behaviour of MnCO₂O₄ coating on crofer 22 APU manufactured by a novel solution precursor plasma spray process (SPPS). /

Puranen, Jouni; Laakso, Jarmo; Hyvärinen, Leo; Kylmälahti, Mikko; Vuoristo, Petri.
ASME 2012 10th International Conference on Fuel Cell Science, Engineering and Technology Collocated with the ASME 2012 6th International Conference on Energy Sustainability, FUELCELL 2012. The American Society of Mechanical Engineers ASME, 2012. p. 213-218.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Hydrogen and methane yields of untreated, water-extracted and acid (HCl) treated maize in one- and two-stage batch assays. /

Pakarinen, O. M.; Kaparaju, P. L N; Rintala, J. A.

In: International Journal of Hydrogen Energy, Vol. 36, No. 22, 11.2011, p. 14401-14407.

Research output: Contribution to journal > Article > Scientific > peer-review

Trace compounds affecting biogas energy utilisation - A review. /

Rasi, S.; Läntelä, J.; Rintala, J.

In: Energy Conversion and Management, Vol. 52, No. 12, 11.2011, p. 3369-3375.

Research output: Contribution to journal > Article > Scientific > peer-review

Power flow initialisation of dynamic studies with induction motor loads. /

Aree, P.; Acha, E.

In: IET Generation Transmission and Distribution, Vol. 5, No. 4, 04.2011, p. 417-424.

Research output: Contribution to journal > Article > Scientific > peer-review

Mitigation of greenhouse gas emissions by adopting anaerobic digestion technology on dairy, sow and pig farms in Finland. / Kaparaju, P.; Rintala, J.

In: Renewable Energy, Vol. 36, No. 1, 01.2011, p. 31-41.

Research output: Contribution to journal > Article > Scientific > peer-review

Environmental and economic evaluation of solar thermal panels using exergy and dimensional analysis. / Medyna, Galina; Coatanea, Eric; Millet, Dominique.

Glocalized Solutions for Sustainability in Manufacturing - Proceedings of the 18th CIRP International Conference on Life Cycle Engineering. 2011. p. 647-651.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Manganese-cobalt spinel coatings for SOFC metallic interconnects manufactured by conventional plasma spraying (PS) and suspension plasma spraying (SPS). / Puranen, Jouni; Hyvärinen, Leo; Lagerbom, Juha; Kylmälahti, Mikko; Koivuluoto, Heli; Vuoristo, Petri.

ASME 2011 9th International Conference on Fuel Cell Science, Engineering and Technology. Collocated with ASME 2011 5th International Conference on Energy Sustainability, FUELCELL 2011. 2011. p. 237-244.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Determination of organic silicon compounds in biogas from wastewater treatments plants, landfills, and co-digestion plants. / Rasi, Saija; Lehtinen, Jenni; Rintala, Jukka.

In: Renewable Energy, Vol. 35, No. 12, 12.2010, p. 2666-2673.

Research output: Contribution to journal > Article > Scientific > peer-review

Modeling the effect of inverter supply on eddy-current losses in synchronous machines. / Rasilo, Paavo; Arkkio, Antero. SPEEDAM 2010 - International Symposium on Power Electronics, Electrical Drives, Automation and Motion. 2010. p. 861-865.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

One-stage H₂ and CH₄ and two-stage H₂ + CH₄ production from grass silage and from solid and liquid fractions of NaOH pre-treated grass silage. / Pakarinen, O. M.; Tähti, H. P.; Rintala, J. A.

In: Biomass & Bioenergy, Vol. 33, No. 10, 10.2009, p. 1419-1427.

Research output: Contribution to journal > Article > Scientific > peer-review

Screening boreal energy crops and crop residues for methane biofuel production. / Lehtomäki, A.; Viinikainen, T. A.; Rintala, J. A.

In: Biomass & Bioenergy, Vol. 32, No. 6, 06.2008, p. 541-550.

Research output: Contribution to journal > Article > Scientific > peer-review

Batch dark fermentative hydrogen production from grass silage : The effect of inoculum, pH, temperature and VS ratio. / Pakarinen, Outi; Lehtomäki, Annimari; Rintala, Jukka.

In: International Journal of Hydrogen Energy, Vol. 33, No. 2, 01.2008, p. 594-601.

Research output: Contribution to journal > Article > Scientific > peer-review

Laboratory investigations on co-digestion of energy crops and crop residues with cow manure for methane production : Effect of crop to manure ratio. / Lehtomäki, A.; Huttunen, S.; Rintala, J. A.

In: Resources Conservation and Recycling, Vol. 51, No. 3, 09.2007, p. 591-609.

Research output: Contribution to journal > Article > Scientific > peer-review

Trace compounds of biogas from different biogas production plants. / Rasi, S.; Veijanen, A.; Rintala, J.

In: Energy, Vol. 32, No. 8, 08.2007, p. 1375-1380.

Research output: Contribution to journal > Article > Scientific > peer-review

Statistical short-term network planning of distribution system and distributed generation. / Repo, Sami; Laaksonen, Hannu; Järventausta, Pertti.

2005. Paper presented at 15th Power Systems Computation Conference, PSCC 2005, Liege, Belgium.

Research output: Other conference contribution > Paper, poster or abstract > Scientific

Anaerobic co-digestion of potato tuber and its industrial by-products with pig manure. / Kaparaju, Prasad; Rintala, Jukka.
In: Resources Conservation and Recycling, Vol. 43, No. 2, 01.2005, p. 175-188.

Research output: Contribution to journal › Article › Scientific › peer-review

Input Invariance as a Method to Reduce EMI Filter Interactions in Telecom DPS Systems. / Suntio, Teuvo.

In: INTELEC, International Telecommunications Energy Conference (Proceedings), 01.12.2003, p. 592-597.

Research output: Contribution to journal › Conference article › Scientific › peer-review

The effects of intermittent charging on VRLA battery life expectancy in telecom applications. / Waltari, Pekka; Suntio, Teuvo; Tenno, Ander; Tenno, Robert.

In: INTELEC, International Telecommunications Energy Conference (Proceedings), 01.12.2002, p. 121-127.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Use of unterminated two-port modeling technique in analysis of input filter interactions in telecom DPS systems. / Suntio, Teuvo; Gadoura, Idris.

In: INTELEC, International Telecommunications Energy Conference (Proceedings), 01.12.2002, p. 560-565.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Dynamics of a buck converter with a constant power load. / Grigore, Vlad; Hatonen, Jari; Kyyra, Jorma; Suntio, Teuvo.

PESC 1998 - 29th Annual IEEE Power Electronics Specialists Conference. Institute of Electrical and Electronics Engineers Inc., 1998. p. 72-78 701881 (PESC Record - IEEE Annual Power Electronics Specialists Conference; Vol. 1).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

DC UPS system's reliability performance : Facts and fiction. / Suntio, Teuvo; Suur-Askola, Seppo.

TELESCON 1997 - 2nd International Telecommunications Energy Special Conference. Institute of Electrical and Electronics Engineers Inc., 1997. p. 237-243 (TELESCON 1997 - 2nd International Telecommunications Energy Special Conference).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Shape of battery capacity-life curve as a decisive decision-making parameter. / Suntio, Teuvo; Waltari, Pekka; Rajamäki, Jyri.

TELESCON '94 - The First International Telecommunications Energy Special Conference. IEEE, 1994. p. 113-119.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Novel ways to improve rectifier performance from power systems' reliability viewpoint. / Suntio, T.; Keränen, T.; Tulkki, J.

Proceedings of Intelec 1993: 15th International Telecommunications Energy Conference. IEEE, 1993. p. 40-47

(INTELEC, International Telecommunications Energy Conference (Proceedings); Vol. 1).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

AC-UPS reliability and availability performance : Comparison of available solutions. / Suntio, Teuvo; Uusitalo, Jari; Jonsson, Lennart.

In: INTELEC, International Telecommunications Energy Conference (Proceedings), 01.12.1989.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Theoretical studies of structural properties of the high- T_c superconductor $Y_1Ba_2Cu_3O_{7-x}$. / Valkealahti, Seppo; Welch, David O.

In: Physica C: Superconductivity and its Applications, Vol. 162-164, No. PART 1, 01.01.1989, p. 540-541.

Research output: Contribution to journal › Article › Scientific › peer-review