Passivation of surface states on hematite photoelectrode by ALD grown TiO2 for efficient solar water splitting
Research output: Scientific › Paper, poster or abstract

Photo-electrochemical and spectroscopic investigation of ALD grown TiO2: Charge transfer characterization and effect of post annealing at different temperature
Research output: Scientific › Paper, poster or abstract

Photovoltaic mismatch losses caused by moving clouds
Research output: Scientific - peer-review › Article

Effect of natural convection and radiation inside of a hollow beam in a standard fire
Research output: Scientific - peer-review › Conference contribution

Nanocomposite Polypropylene For DC Cables And Capacitors: A New European Project
Research output: Scientific - peer-review › Conference contribution

Resistive current waveform as a tool to identify degraded parts of polymeric surge arresters subjected to internal moisture
Research output: Scientific - peer-review › Conference contribution

Ideal operation of a photovoltaic power plant equipped with an energy storage system on electricity market
Research output: Scientific - peer-review › Article

The role of inorganics in modelling of biomass gasification
Research output: Scientific - peer-review › Conference contribution

Broadband Anti-reflective Coatings for Multi-junction Solar Cells
Research output: Scientific › Paper, poster or abstract

Chlorine-Induced High Temperature Corrosion of Inconel 625 Sprayed Coatings Deposited with Different Thermal Spray Techniques
Research output: Scientific - peer-review › Article

Pyrolysed cellulose nanofibrils and dandelion pappus in supercapacitor application
Research output: Scientific - peer-review › Article
Aspects of moisture ingress in polymer housed surge arresters
Research output: Scientific - peer-review › Article

Output power variation of different PV array configurations during irradiance transitions caused by moving clouds
Research output: Scientific - peer-review › Article

Effects of PV array layout, electrical configuration and geographic orientation on mismatch losses caused by moving clouds
Research output: Scientific - peer-review › Article

Utilization Possibilities of Electrical Energy Storages in Households' Energy Management in Finland
Research output: Scientific - peer-review › Article

Simulation Environment for Centralized Protection and Control applying dSPACE and RTDS with IEC 61850 9-2 Communication
Research output: Scientific - peer-review › Conference contribution

31% European InGaP/GaAs/InGaNAs Solar Cells For Space Application
Research output: Scientific - peer-review › Conference contribution

Composition and Bandgap determination of MBE-grown GaInNAsSb
Research output: Professional › Conference contribution

Development and Testing of New Equipment for Faulty Phase Earthing Applying RTDS
Research output: Scientific - peer-review › Review Article

Development of Modern Phase Earthing System for Improving Quality of Supply in MV Network
Research output: Scientific - peer-review › Review Article

Novel Concepts for High-efficiency lightweight space solar cells
Research output: Scientific - peer-review › Conference contribution

Performance of Dilute Nitride Triple Junction Space Solar Cell Grown by MBE
Research output: Scientific - peer-review › Conference contribution

Enhancement of Photocurrent in GaInNAs Solar Cells using Ag/Cu Double-Layer Back Reflector
Thermal Modification of ALD Grown Titanium Oxide Ultra Thin Film for Photoanode Applications
Research output: Scientific › Paper, poster or abstract

Ambient-Pressure XPS of Electrochemical Interfaces for Solar Fuel Production
Research output: Scientific › Paper, poster or abstract

Modeling and experimental verification of magneto-mechanical energy harvesting device based on construction steel
Research output: Scientific › Paper, poster or abstract

Thermo-catalytic decomposition of methane: The effect of reaction parameters on process design and the utilization possibilities of the produced carbon
Research output: Scientific - peer-review › Article

A comparative study between surge arrester monitoring through capacitive/resistive measurement bridge and digital decomposition
Research output: Scientific - peer-review › Conference contribution

Fabrication of topographically microstructured titanium silicide interface for advanced photonic applications
Research output: Scientific - peer-review › Article

Optically Enhanced GaInNAs Solar Cell
Research output: Scientific › Paper, poster or abstract

Improving Recovery Boiler Availability through Understanding Fume Behavior
Research output: Scientific - peer-review › Article

Kitka ja kuluminen haastavat koneensuunnittelijat
Research output: Professional › Article

Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction
Research output: Scientific - peer-review › Article

Color Bricks: Building Highly Organized and Strongly Absorbing Multicomponent Arrays of Terpyridyl Perylenes on Metal Oxide Surfaces
Research output: Scientific - peer-review › Article
Improving Disturbance Management with Combined Electricity and Mobile Network Situation Awareness System
Research output: Scientific - peer-review › Article

Increasing the quantum efficiency of GaInNAs solar cells by advanced optical design
Research output: Scientific › Paper, poster or abstract

Optimizing iron alloy catalyst materials for photoelectrochemical water splitting: Passivation of FeCr alloy surface by water vapour using near-ambient-pressure photoelectron spectroscopy
Research output: Professional › Commissioned report

Pohjoismaiden energiapolitiikka 2030: Hiilineutraalimpaan energiajärjestelmään osin yhdessä, osin eri polkuja pitkän
Research output: Professional › Discussion paper

Revisiting cellulase production and redefining current strategies based on major challenges Article reference: RSER5103
Research output: Scientific - peer-review › Article

Tammikuun tehopipikki – mitä tapahtui 7.1.2016? Miten tehoa hallitaan paremmin jatkossa?
Research output: Professional › Discussion paper

Techno-economic analysis of four concepts for thermal decomposition of methane: Reduction of CO₂ emissions in natural gas combustion
Research output: Scientific - peer-review › Article

Transformation of ALD grown TiO₂ film to topographically microstructured titanium silicide for photonics applications
Research output: Professional › Commissioned report

Use of diluted urine for cultivation of Chlorella vulgaris
Research output: Scientific - peer-review › Article

X-ray photoelectron spectroscopy of electrochemical interfaces for solar fuel production
Research output: Scientific › Paper, poster or abstract

Mesophilic anaerobic digestion of pulp and paper industry biosludge-long-term reactor performance and effects of thermal pretreatment
Research output: Scientific - peer-review › Article

Single-source multibattery solar charger: Case study and implementation issues
Factors Affecting Efficiency of LVDC Distribution Network – Power Electronics Perspective  
Rekola, J. 20 Nov 2015 Tampere University of Technology. 133 p. (Tampere University of Technology. Publication; vol. 1340)  
Research output: Monograph › Doctoral Thesis

Dilute Nitride Multijunction Solar Cells Grown by Molecular Beam Epitaxy  
Aho, A. 14 Nov 2015 Tampere University of Technology. 80 p. (Tampere University of Technology. Publication; vol. 1343)  
Research output: Collection of articles › Doctoral Thesis

Aspects of Electric Vehicles and Demand Response in Electricity Grids  
Rautiainen, A. 6 Nov 2015 Tampere University of Technology. 80 p. (Tampere University of Technology. Publication; vol. 1327)  
Research output: Collection of articles › Doctoral Thesis

A Versatile Solution for Continuous On-line PD Monitoring  
Research output: Scientific - peer-review › Conference contribution

Performance analysis of Q-f droop anti-islanding protection in the presence of mixed types of DG  
Research output: Scientific - peer-review › Conference contribution

Smart Frequency Control in Power Transmission Systems Using a BESS  
Research output: Scientific - peer-review › Conference contribution

Methodology for Dynamic Stability and Robustness Analysis of Commercial-Power-Module-Based DC-Distributed Systems  
Vesti, S. 9 Oct 2015 Tampere University of Technology. 147 p. (Tampere University of Technology. Publication; vol. 1326)  
Research output: Monograph › Doctoral Thesis

Partial discharge activity in distribution MOSAs due to internal moisture  
Research output: Scientific - peer-review › Conference contribution

Compensation of PV generator output power fluctuations with energy storage systems  
Research output: Scientific - peer-review › Conference contribution

Recognition of shading events caused by moving clouds and determination of shadow velocity from solar radiation measurements  
Research output: Scientific - peer-review › Conference contribution

Risk Assessment of Major Storm Situation in Distribution System  
Dehghani, N., Supponen, A. & Repo, S. 1 Sep 2015 2015 50th International Universities Power Engineering Conference (UPEC). IEEE  
Research output: Scientific - peer-review › Conference contribution
Effects of thinning and heating for TiO2/AlInP junctions
Research output: Scientific - peer-review › Article

Low-Voltage DC Distribution-Utilization Potential in a Large Distribution Network Company
Research output: Scientific - peer-review › Article

Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent
Research output: Scientific - peer-review › Article

Improved adaptive input voltage control of a solar array interfacing current mode controlled boost power stage
Research output: Scientific - peer-review › Article

Real-Time Low Voltage Network Monitoring - ICT Architecture and Field Test Experience
Research output: Scientific - peer-review › Article

Change Detection of Electric Customer Behavior Based on AMR measurements
Research output: Scientific - peer-review › Conference contribution

Monetary impact of dynamic pricing and demand response on households: The winners and losers
Research output: Scientific - peer-review › Conference contribution

A communication based protection system for solving DG related protection challenges
Research output: Scientific - peer-review › Conference contribution

Demonstration of the Inter-Organizational Situation Awareness System to Major Disturbances
Research output: Scientific - peer-review › Conference contribution

Implementation Possibilities of Power-based Distribution Tariff by Using Smart Metering Technology
Research output: Scientific - peer-review › Conference contribution

Modelling of simultaneous fault to reliability enhancement in distribution system
Novel Sensor Solutions for On-Line PD Monitoring
Research output: Scientific - peer-review › Conference contribution

Practical Implementation of Demand Response in Finland
Research output: Scientific - peer-review › Conference contribution

Reserve Power – Alternative Solution to the Network Investments in Rural Area Networks?
Research output: Scientific - peer-review › Conference contribution

GainNAs Solar Cell with Back Surface Reflector
Research output: Scientific - peer-review › Conference contribution

Distributed Energy Systems – DESY
Research output: Professional › Commissioned report

A novel VSC-HVDC link model for dynamic power system simulations
Research output: Scientific - peer-review › Article

Demand Side Management in Open Electricity Markets from Retailer Viewpoint
Research output: Scientific - peer-review › Conference contribution

Product level accelerated reliability testing of motor drives with input power interruptions
Research output: Scientific - peer-review › Article

Role of public regulators in demand response business ecosystem - Case New York State electric power market
Research output: Scientific - peer-review › Conference contribution

Comprehensive dynamic analysis of photovoltaic generator interfacing DC-DC boost power stage
Research output: Scientific - peer-review › Article
Matlab/Simulink modeling to study the effect of partially shaded condition on photovoltaic array's maximum power point
Research output: Scientific - peer-review › Article

A Finite Element Simulation Tool for Predicting Hysteresis Losses in Superconductors Using an H-Oriented Formulation with Cohomology Basis Functions
Research output: Scientific - peer-review › Article

Evolving Smart Meter Data Driven Model for Short-Term Forecasting of Electric loads
Research output: Scientific - peer-review › Conference contribution

Corrosion mechanisms of sintered Nd-Fe-B magnets in the presence of water as vapour, pressurised vapour and liquid
Research output: Scientific - peer-review › Article

Dynamics of photovoltaic-generator-interfacing voltage-controlled buck power stage
Research output: Scientific - peer-review › Article

Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components
Research output: Scientific - peer-review › Article

Corrosion mechanisms of sintered Nd-Fe-B magnets in the presence of water as vapour, pressurised vapour and liquid
Research output: Scientific - peer-review › Article

Dynamics of photovoltaic-generator-interfacing voltage-controlled buck power stage
Research output: Scientific - peer-review › Article

Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components
Research output: Scientific - peer-review › Article

Supramolecular hierarchy among halogen and hydrogen bond donors in light-induced surface patterning
Research output: Scientific - peer-review › Article

Modeling Fume Particle Dynamics and Deposition with Alkali Metal Chemistry in Kraft Recovery Boilers
Leppänen, A. 9 Jan 2015 Tampere: Tampere University of Technology. 63 p. (Tampere University of Technology. Publication; vol. 1273)
Research output: Collection of articles › Doctoral Thesis

Driving pattern analysis of Nordic region based on National Travel Surveys for electric vehicle integration
Research output: Scientific - peer-review › Article

An accurate small-signal model of a three-phase VSI-based photovoltaic inverter with LCL-filter
Research output: Scientific - peer-review › Conference contribution

Appearance of a Drift Problem in Variable-step Perturbative MPPT Algorithms
Research output: Scientific - peer-review › Conference contribution

Closure to Discussion on "Effect of Multilevel Inverter Supply on Core Losses in Magnetic Materials and Electrical Machines"
Research output: Scientific › Article

Comments on An Efficient Partial Power Processing DC/DC Converter for Distributed PV Architectures
Research output: Scientific › Article

Designing Inter-Organizational SA System to Disturbances of Electricity Supply
Research output: Professional › Working paper

Dielectric Breakdown Strength of Thermally Sprayed Ceramic Coatings: Effects of Different Test Arrangements
Research output: Scientific - peer-review › Article

Dynamic characteristics of three-phase Z-source-based photovoltaic inverter with asymmetric impedance network
Research output: Scientific - peer-review › Conference contribution

Effect of active damping on the output impedance of PV inverter
Research output: Scientific - peer-review › Conference contribution

Harmonic and Imbalance Voltage Mitigation in Smart Grids: A DSTATCOM Based Solution
Research output: Scientific - peer-review › Conference contribution

III-N/Bu-V based high efficiency solar cells: recent developments ad future prospects
Guina, M. 2015
Research output: Scientific › Paper, poster or abstract

Improving Recovery Boiler Availability through Understanding Fume Behavior
Research output: Professional › Conference contribution

Influence of Diffusion Barriers on Thermal Ageing Behaviour of Solar Absorber Coatings on Copper
Research output: Scientific - peer-review › Conference contribution

Interfacing renewable energy sources for maximum power transfer-Part II: Dynamics
Research output: Scientific - peer-review › Article

Konvergenssi ja divergenssi ongelmatyyppien luonnehtjoina: Esimerkkeinät vesihuoltoinfrastruktuurin ikääntyminen
Research output: Scientific - peer-review › Article
Temperature coefficients for GaInP/GaAs/GaInNAsSb solar cells
Research output: Scientific - peer-review » Article

Rationally engineered synthetic coculture for improved biomass and product formation
Research output: Scientific - peer-review » Article

Ash forming elements in plastics and rubbers.
Research output: Professional » Commissioned report

Numerical modeling of fine particle and deposit formation in a recovery boiler
Research output: Scientific - peer-review » Article

University-Industry Co-operation Using a Practice-based Innovation Tool: Case Advisory Professorship Programme in Materials Technology
Eerola, S. 6 Jun 2014 Tampere: Tampere University of Technology. 208 p. (Tampere University of Technology. Publication; no. 1216)
Research output: Monograph » Doctoral Thesis

Bioprocessing of enhanced cellulase production from a mutant of Trichoderma asperellum RCK2011 and its application in hydrolysis of cellulose
Research output: Scientific - peer-review » Article

Assessment of metabolic flux distribution in the thermophilic hydrogen producer Caloramator celer as affected by external pH and hydrogen partial pressure
Research output: Scientific - peer-review » Article

Rewiring the wax ester production pathway of acinetobacter baylyi ADP1
Research output: Scientific - peer-review » Article

8 Erityisalueita. 8.1. Tiivistimet
Research output: Scientific » Chapter

8 Erityisalueita. 8.5 Mekatroniikka
Research output: Scientific » Chapter

An experimental study and numerical modeling of combusting two coal chars in a drop-tube reactor: A comparison between N2/O2, CO2/O2, and N2/CO2/O2 atmospheres
Research output: Scientific - peer-review » Article
Deep levels in 1 eV bandgap dilute nitride antimonide solar cells
Research output: Scientific - peer-review » Conference contribution

Dynamics of time-resolved photoluminescence in GaInNAs and GaNAsSb solar cells
Research output: Scientific - peer-review » Article

Effect of plasma treated Ag/indium tin oxide anode modification on stability of polymer solar cells
Research output: Scientific - peer-review » Article

Effect of Temperature on Fume Formation and Deposition in Kraft Recovery Boilers - a Modeling Approach
Research output: Scientific - peer-review » Conference contribution

Influence of powder composition and manufacturing method on electrical and chromium barrier properties of atmospheric plasma sprayed spinel coatings prepared from MnCo2O4 and Mn2CoO4 + Co powders on Crofer 22 APU interconnectors
Research output: Scientific - peer-review » Article

Influence of surface hydroxylation on the oxidation of FeCr in O2 and air
Research output: Scientific » Chapter

Influence of temperature and pretreatments on the anaerobic digestion of wastewater grown microalgae in a laboratory-scale accumulating-volume reactor
Research output: Scientific - peer-review » Article

Long-term thermophilic mono-digestion of rendering wastes and co-digestion with potato pulp
Research output: Scientific - peer-review » Article

Mesophilic and thermophilic anaerobic laboratory-scale digestion of Nannochloropsis microalga residues
Research output: Scientific - peer-review » Article

Metabolic engineering of Acinetobacter baylyi ADP1 for improved growth on gluconate and glucose
Research output: Scientific - peer-review » Article

Modelling fume deposit growth in recovery boilers: effect of flue gas and deposit temperature
Research output: Scientific - peer-review » Article
Novel design of a multitube microbial fuel cell (UM2FC) for energy recovery and treatment of membrane concentrates
Research output: Scientific - peer-review › Article

Post-mortem evaluation of oxidized atmospheric plasma sprayed Mn-Co-Fe oxide spinel coatings on SOFC interconnectors
Research output: Scientific - peer-review › Article

Stabilization of fine fraction from landfill mining in leach bed reactor
Research output: Scientific - peer-review › Conference contribution

Surface Modifications and Analysis Methods at Molecular Level
Research output: Scientific - peer-review › Conference contribution

The effect of torrefaction on the chlorine content and heating value of eight woody biomass samples
Research output: Scientific - peer-review › Article

Upgrading landfill gas using a high pressure water absorption process
Research output: Scientific - peer-review › Article

Non-sterile process for biohydrogen and 1,3-propanediol production from raw glycerol
Research output: Scientific - peer-review › Article

MO Surge Arresters Stresses and Test Procedures: CIGRE Technical Brochure, WG A3.17
Research output: Professional › Commissioned report

Organic silicon compounds in biogases produced from grass silage, grass and maize in laboratory batch assays
Research output: Scientific - peer-review › Article

Biogas upgrading and compression
Research output: Scientific - peer-review › Chapter

Bioenergy consumption and biogas potential in Cambodian households
Research output: Scientific - peer-review › Article
CFD-modeling of fume formation in kraft recovery boilers
Research output: Scientific - peer-review › Article

CO2 capture from biogas: absorbent selection
Research output: Scientific - peer-review › Article

Conjugated donor-acceptor (D-A) copolymers in inverted organic solar cells - a combined experimental and modelling study
Research output: Scientific - peer-review › Article

Dipyrrolidinyl-substituted perylene diimide as additive for poly(3-hexylthiophene): [6,6]-Phenyl C61 butyric acid methylester bulk-heterojunction blends
Research output: Scientific - peer-review › Article

Electricity generation from young landfill leachate in a microbial fuel cell with a new electrode material
Özkaya, B., Cetinkaya, A. Y., Cakmakci, M., Karadag, D. & Sahinkaya, E. 2013 In : Bioprocess and Biosystems Engineering. 36, 4, p. 399-405
Research output: Scientific - peer-review › Article

Excited-state interaction of red and green perylene diimides with luminescent Ru(II) polypyridine complex
Research output: Scientific - peer-review › Article

Fast pyrolysis of coal, peat, and torrefied wood: Mass loss study with a drop-tube reactor, particle geometry analysis, and kinetics modeling
Research output: Scientific - peer-review › Article

Generation of heat and power from biogas for stationary applications: boilers, gas engines and turbines, combined heat and power (CHP) plants and fuel cells
Research output: Scientific - peer-review › Chapter

In Situ XPS Studies of Electrochemically Negatively Polarized Molybdenum Carbide Derived Carbon Double Layer Capacitor Electrode
Research output: Scientific - peer-review › Article

Optimization of interfacial oxidation properties of FeCr SOFC interconnect alloy
Research output: Scientific - peer-review › Chapter

Plasma-assisted chemical vapor deposition of Fe:TiO2 films for photoelectrochemical hydrogen production
Testing activity-based costing to large-scale combined heat and power plant using bioenergy
Research output: Scientific - peer-review › Article

Triarylamine-substituted imidazole- and quinoxaline-fused push-pull porphyrins for dye-sensitized solar cells
Research output: Scientific - peer-review › Article

CFD-Modeling of Fume Formation in Kraft Recovery Boilers
Research output: Scientific - peer-review › Conference contribution

CFD Based Modelling for Predicting Fouling and Corrosion in Kraft Recovery Boilers
Research output: Scientific - peer-review › Conference contribution

Modeling of Fine Particles and Alkali Metal Compounds in Kraft Recovery Boiler Furnace
Research output: Scientific - peer-review › Conference contribution

Study of Aerosols of Black Liquor Combustion
Research output: Scientific - peer-review › Conference contribution