Record Nr. UNINA9910300387703321 International Congress on Energy Efficiency and Energy Related **Titolo** Materials (ENEFM2013): Proceedings, Antalya, Turkey, 9-12 October 2013 / / edited by Ahmet Yavuz Oral, Zehra Banu Bahsi, Mehmet Ozer Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2014 3-319-05521-6 **ISBN** Edizione [1st ed. 2014.] 1 online resource (482 p.) Descrizione fisica Springer Proceedings in Physics, , 0930-8989;; 155 Collana 333.7916 Disciplina Soggetti Energy systems **Physics** Geophysics **Nuclear physics Energy Systems** Applied and Technical Physics Geophysics and Environmental Physics Particle and Nuclear Physics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Study of the Effect of Transition Metals on Titanium Dioxide Phase Transformation -- Green Synthesized CdSe Quantum Dots Capped by 3-Mercaptopropionic acid (MPA) Sensitized Solar Cells -- Study of the Thermal Decomposition of Some Components of Biomass by Desorption Mass Spectrometry -- Thermal Properties of Algerian Diatomite, Study of the Possibility to its Use in the Thermal Insulation -- Optimal Resource Allocation in Steel Making Using Torrefied Biomass as Auxiliary Reductant -- Numerical Simulation of Cavity with an Upper Free Surface -- Walk Optimization of a Drilling Operation Carried Out By a Two Link Robot Arm Using Heuristic Approach --Design and Evaluation of Airborne Wind Turbine Utilizing Physical Prototype -- Comparison of Two ARMA-GARCH Approaches for Forecasting the Mean and Volatility of Wind Speed -- Comparative

Study of Structural and Electrochemical Properties of V2O5 Thin Films

Prepared by Organic/Inorganic Precursors -- Residential Consumption Scheduling based on Dynamic User Profiling -- Transforming a Brutalist Monument into an Energy Efficient Building without Destroying the Formal Appealing: The Example of the Mediterranean Bank in Potenza (Italy) -- The Re-Invention of the Tower House for the Construction of Green Buildings NZEB, Integrated With the Vertical Axis Small Wind System.- Analysis and Simulation of Superlattice GaN/InGaN p-i-n Solar Cells -- Improvement in the Efficiency of Thin Film CdS/CdTe Solar Cells Using Different TCO Materials -- Effect of Dopant Concentrations on Conversion Efficiency of SiC-Based Intermediate Band Solar Cells -- Performance Analysis of Ultra-Thin Silicon Based Tunnel Junctions for Tandem Solar Cell Applications -- A Study on Applications of Holography in Solar Energy Installations -- A Process Heat Application Using Parabolic Trough Collector -- On the Use of Agent-Based Simulation for Efficiency Analysis of Domestic Heating Using Photovoltaic Solar Energy Production Combined with a Heatpump -- The Influence of the Construction of the Cooling System of Semiconductor Devices on the Watt-Hour Efficiency of Dc-Dc Converters -- New Method For Analytical Photovoltaic Parameters Identification: Meeting Manufacturer's Datasheet for Different Ambient Conditions -- Design of Biomass Gasification and Combined Heat and Power (CHP) Plant Based on Laboratory Experiments --Thermomechanical Properties of Quartz Intended For Carbothermic Process for Silicon Production -- The Influence of the Material of the Transformer Core on Characteristics of the Selected Dc-Dc Converters -- A Novel Zinc Diffusion Process for Fabrication of High Performance GaSb Thermophotovoltaic Cells -- Impact of Barium on Surface and Reactivity of TiO2 -- Structural Study of Rare Earth Oxides Doped By Barium -- Object-Oriented Modeling of an Energy Harvesting System Based On Thermoelectric Generators -- Extensible Wind Towers --Zirfon® As Separator Material for Water Electrolysis under Specific Conditions -- Onshore Wind Farms: Value Creation for Stakeholders in Lithuania -- Evaluation of New Thermally Conductive Geopolymer in Thermal Energy Storage -- Transient Response of Different Highly Conductive PCM Composite -- Energy harvesting in the Microwaves Spectrum using Electrically Small Resonators -- 3D Blade Vibration Measurements on an 80 Meter Diameter Wind Turbine by Using NonContact Remote Measurement Systems -- Aero-elastic Parameter Estimation of a 2.5 MW Wind Turbine through Dynamic Analysis of In-Operation Vibration Data -- A Study of Energy Conversion Efficiency of a Savonius Type Wave Energy Converter System -- Impact of Phosphorus Diffusion Gettering on HEM Multicrystalline Silicon Wafers Taken From Different Ingot -- Photochemical Degradation of Polybrominated Diphenylether BDE209 under Ultraviolet Irradiation --Influence of Heat Treatment on Structure and Charge Capacity of Sol-Gel Produced TiO2 Films -- Investigation of Natural Draft Cooling Tower Performance Using Neural Network -- Exergo-Economic Analysis of an Experimental Aircraft Turboprop Engine under Low Torque Condition -- The Potential of Solar as Alternative Energy Source for Socio-Economic Wellbeing in Rural Areas, Malaysia -- Modification of the Porosity of the Natural Diatomite Effect on Thermal Conduction --Economic and Environmental Assessment of A 1 MW Grid Connected Rooftop Solar PV System for Energy Efficient Building in Bangladesh. --An Experimental Study on the Effect of Using Fresnel Lenses on the Performance of Solar Stills -- Solar Energy for Rural Egypt --Experimental Research of Pyrolysis Gases Cracking On Surface of Charcoal -- High-Calorific Gas Mixtures Produced By From Biomass --Aspects Regarding Design of Wind Power Plants Foundation System --

Aspects Regarding Soil Investigation and Foundation Design for Photovoltaic Power Plants -- Development of New Technologies of Solid and Gaseous Biofuel Production -- Data File of the Building Site's Renewable Energy Characteristics -- A Multiagent Energy Management System for a Small Microgrid Equipped With Power Sources and Energy Storage Units -- Comparative Study between Wind and Photovoltaic (PV) Systems -- The Graphene Oxide Polymer Composites with High Breakdown Field Strength and Energy Storage Ability -- Profitability Analysis of Residential Wind Turbines with Battery Energy Storage.- Dynamic Model and Experimental Validation of a PEM Fuel Cell System -- First-Principles Structure Prediction Of Dual Cation Ammine Borohydrides: LiMg(BH4)3(NH3)x -- Adsorption of Two Dyes by Mg(OH) 2: Procion Blue HB and Remazol Brilliant Blue R -- Wireless Communications in Smart Grid -- Innovative Solutions for Energetic Refurbishment of Historic Brick Buildings -- Organization -- Index.

Sommario/riassunto

The International Congress on Energy Efficiency and Energy Related Materials (ENEFM2013) was held on 9-12 October, 2013. This threeday congress focused on the latest developments of sustainable energy technologies, materials for sustainable energy applications and environmental & economic perspectives of energy. These proceedings include 63 peer reviewed technical papers, submitted from leading academic and research institutions from over 23 countries, representing some of the most cutting edge research available. The papers included were presented at the congress in the following sessions: General Issues Wind Energy Solar Energy Nuclear Energy Biofuels and Bioenergy Energy Storage Energy Conservation and Efficiency Energy in Buildings Economical and Environmental Issues Environment Energy Requirements Economic Development Materials for Sustainable Energy Hydrogen Production and Storage Photovoltaic Cells Thermionic Converters Batteries and Superconductors Phase Change Materials Fuel Cells Superconductors.