



- The conference presentations will start on Wednesday 5 April at 11:00, although there will be a registration period from 9:30 to 11:00 in the morning. The Conference will finish on Friday 7 April around 16:30. In any case, attendees will be able to pick up the conference materials at the registration desk at any time during the conference. The conference/registration desk will be placed at the Atrium at the conference venue (Rectorate of Nova Lisboa University).
- Oral presentations will take place according to the following general structure in one hall at the conference venue (Rectorate of Nova Lisboa University):

Hall 1: "Auditorium B" lecture theatre

<b>ORAL PRESENTATIONS SCHEDULE</b>			
	<b>WEDNESDAY, 5 APRIL 2017</b>	<b>THURSDAY, 6 APRIL 2017</b>	<b>FRIDAY, 7 APRIL 2017</b>
<b>AUDITORIUM B</b>	Advances in Lighting Materials Energy Production from Biomass – Biofuels Energy Production from Fossil Fuels Fuel Cells	Solar Energy Energy Transmission, Distribution and Storage Nuclear Energy and Materials Wind Power	Energy-Efficient Buildings Hydrogen Materials, Processes and Systems for Energy Saving and Sustainability

➤ There will be 4 POSTER SESSIONS at the Atrium at the conference venue (Rectorate of Nova Lisboa University), according the following schedule:

<b>POSTER PRESENTATIONS SCHEDULE</b>		
<b>Day</b>	<b>Time</b>	<b>Sessions</b>
Wednesday, 5 April	From 16:30 to 17:15	<ul style="list-style-type: none"> <li>• Energy Production from Biomass – Biofuels</li> <li>• Fuel Cells</li> </ul>
Thursday, 6 April	From 10:45 to 11:15	<ul style="list-style-type: none"> <li>• Energy Transmission, Distribution and Storage</li> <li>• Geothermal Energy</li> <li>• Nuclear Energy and Materials</li> <li>• Solar Energy</li> </ul>
	From 16:00 to 16:30	
Friday, 7 April	From 10:45 to 11:30	<ul style="list-style-type: none"> <li>• Energy-Efficient Buildings</li> <li>• Energy Harvesting Materials</li> <li>• Hydrogen</li> <li>• Materials, Processes and Systems for Energy Saving and Sustainability</li> </ul>

Posters are expected to be posted during the whole day assigned from 9:00 AM to the end of the day (approximately). Presenters are expected to be available for discussion of their posters during the corresponding sessions.

## SCIENTIFIC PROGRAM

### REGISTRATION & COFFEE

9:30-11:00 Wednesday, 5 April 2017 (Atrium)  
(Registration can also be done at any time during the Conference)

### ORAL PRESENTATIONS

Wednesday, 5 April 2017

"Auditorium B"

Session: Energy Production from Biomass – Biofuels

Chair: Narendra Kumar (Abo Akademi University, Finland)

11:00-12:00



#### PLENARY LECTURE

Current status on advanced lignocellulose conversion to bioethanol and higher alcohols as biofuels

**Francisco Gírio**

12:00-12:15

Increase of Energy Output by Rational Use of Sub Products at Ethanol Distilleries from Sugar Cane

**Adrianus van Haandel**

12:15-12:30

The use of biodiesel and its emulsions as pilot fuels for compression ignition engines dual-fuelled with NG

**Abdelrahman Hegab**

12:30-12:45

Biodiesel properties from okra seed oil using ultra-sonic trans-esterification

**Majid AghaAlikhani**

12:45-13:00

Bio-oil deoxygenation from catalytic pyrolysis of *Posidonia Oceanica*

**Susanna Maisano**

13:00-13:15

Solid base heterogeneous catalysts for the synthesis of diethyl carbonate as an oxygenated fuel additive: synthesis, characterization and applications

**Narendra Kumar**

13:15-14:15

**LUNCH BREAK (Buffet at the Atrium)**

Session: Energy Production from Biomass – Biofuels

Chair: Vinay Sharma (Banasthali University, India)

14:15-14:30

Optimization of cellulase production from locally isolated *Fusarium* sp. and its application on enzymatic saccharification of corn husk

**Vinay Sharma**

14:30-14:45

Pyrolysed lignocellulosic residues - biosyncrude for entrained flow gasification

**Klaus Raffelt**

14:45-15:00

Effect of biomass pre-treatment and pyrolysis temperatures on key physicochemical properties of cypress sawdust-derived biochar

**Khoulood Haddad**

15:00-15:15

Sustainable utilization of bi-ecofriendly materials for CO<sub>2</sub> capture

**Paula Alexandra Lourenço Teixeira**

15:15-15:30

The Importance of Bioenergy at Renewable Energies in Turkey

**Nedim Saracoglu**

15:30-15:45

Fabrication of GaN-based LEDs by pulsed sputtering

**Hiroshi Fujioka**

15:45-16:00

AlGaN-based UV lasers by electron beam pumping

**Motoaki Iwaya**

16:00-16:15

Mg- and Zn-doped GaN nanostructured thick films by HCVD

**Rafael García Gutiérrez**

16:15-16:30

Experimental Characterization of Fatigue Crack Initiation of Mineralized AA320 Alloy under CTC & ML during Four Point Rotating and Bending Fatigue Testing Machine

**Rana Atta ur Rahman**

16:30-17:15

**POSTER SESSION & COFFEE BREAK (at the Atrium)**

Sessions: Fuel Cells / Energy Production from Fossil Fuels

Chair: TBA

17:15-17:30

The Relationship between Stability and Activity for Pt/C and PtM/C Electrocatalysts: the Role of Morphology and Architecture of Nanoparticles

**Vladimir Guterman**

17:30-17:45	Imaging the formation of PtCu <sub>3</sub> /C electrocatalyst by In-Situ Annealing Transmission Electron Microscopy <b>Matija Gatalo</b>
17:45-18:00	Cluster of boron as a liquid anodic fuel <b>Salem Ould Amara</b>
18:00-18:15	New electrocatalysts for PEM Fuel cell application based on platinum supported on nanostructured carbon support <b>Marie Heitzmann</b>
18:15-18:30	Electrochemical and degradation behaviour study of different SOFC compounds <b>Aritza Wain Martin</b>
18:30-18:45	Electrochemical polymerization of polyaniline and polypyrrole modified carbon cloth anode for high performance of microbial fuel cells <b>Praveena Mishra</b>
18:45-19:00	3-D electrodes for large-scale electrochemical H <sub>2</sub> production <b>Joris Proost</b>
19:00-19:15	Electrochemistry of Coal for Fuel Synthesis and Energy Storage <b>Friedrich Kröner</b>

## Thursday, 6 April 2017 "Auditorium B"


Session: Solar Energy / Wind Power

Chair: Mowafak Al-Jassim (National Renewable Energy Laboratory, United States)

09:00-09:15	Luminescent, structural and chemical characterization of defects in polycrystalline thin film solar cells <b>Mowafak Al-Jassim</b>
09:15-09:30	Czochralski and mono-like silicon solar cells p-type and n-type relationship between strain and stress reduced from the Al back contact and photovoltaic properties <b>Thu Nhi Tran Thi</b>
09:30-09:45	High temperature hyperbolic metamaterial for selective thermal emitters in thermophotovoltaic (TPV) systems <b>Manfred Eich</b>
09:45-10:00	Corrosion of low-alloy steel in molten sodium nitrate at 340°C <b>Sylvie Delpech</b>
10:00-10:15	Using Osmotic Dehumidification to Enable Evaporative Cooling in Humid Climates <b>Ariel K. Girelli</b>
10:15-10:30	EU resilience to potential supply bottlenecks along the rare earths value chain for the future deployment of wind power in the EU <b>Patrícia Sofia Alves Dias</b>
10:30-10:45	A comparison between PI and SMC pitch angle control for standalone fixed speed wind energy system based on Self- Excited Induction Generator <b>Ameziane Sadek</b>
10:45-11:15	<b>POSTER SESSION &amp; COFFEE BREAK (at the Atrium)</b>

Session: Solar Energy

Chair: Ladislav Kavan (Jaroslav Heyrovsky Institute of Physical Chemistry, Czech Republic)

11:15-12:15	 <b>PLENARY LECTURE</b> Interpretation of kinetic processes governing the operation of perovskite solar cells <b>Juan Bisquert</b>
-------------	---

12:15-12:30	Alkali polyphosphates as new materials for thermal energy storage <b>Abdoul Razac Sane</b>
12:30-12:45	Storing heat in hydration transitions: illustrated with $K_2CO_3$ <b>Henk P. Huinink</b>
12:45-13:00	Conduction-Band Positions in Oxide Semiconductors ( $TiO_2$ , $SnO_2$ ): Experiments, Theory and Energy-Applications <b>Ladislav Kavan</b>
13:00-13:15	WITHDRAWN
13:15-14:15	<b>LUNCH BREAK (Buffet at the Atrium)</b>
<b>Session: Nuclear Energy and Materials</b> <b>Chair: TBA</b>	
14:15-14:30	The chemistry of water on Cu(110) - a first principles investigation <b>Cláudio Miguel Lousada Patrício</b>
14:30-14:45	Cr-Ta multilayers as a potential coating material for fuel cladding in Gen III and Gen IV nuclear plants <b>Mamour Sall</b>
14:45-15:00	Interactions of coolants with hot-dip galvanized materials after loss-of-coolant accidents in pressurized water reactors <b>Ulrich Harm</b>
15:00-15:15	Molten Salt Reactor: Experimental approach and modelling of safety-related properties of the fluoride fuel <b>Alberto Tosolin</b>
15:15-15:30	Behavior of metallic uranium in cement and geopolymer matrices <b>Davide Rodrigues</b>
15:30-15:45	The problems of structure and properties degradation WWER-type nuclear reactor materials under neutron irradiation <b>Alex Frolov</b>

15:45-16:00	The selection of catalytic mixed packing for detritition of heavy water from Cernavoda Nuclear Power Plant <b>Gheorghe Ionita</b>
16:00-16:30	<b>POSTER SESSION &amp; COFFEE BREAK (at the Atrium)</b>
<b>Session: Energy Transmission, Distribution and Storage</b> <b>Chair: Carita Kvarnstrom, (University of Turku, Finland)</b>	
16:30-16:45	Composite materials of conducting polymers and reduced graphene oxide for energy storing <b>Carita Kvarnstrom</b>
16:45-17:00	Materials for energy <b>Luís Gil</b>
17:00-17:15	Assessment of a Magnetic Refrigeration, General Perspectives <b>Ali I. Alahmer</b>
17:15-17:30	Applicability of polymeric materials for heat storages <b>Helena Weingrill</b>
17:30-17:45	Thermochemical storage composites: impact of salts and supports <b>Simona Bennici</b>
17:45-18:00	Preparation of a glass based separator for lithium-ion batteries <b>Ulrich Schadeck</b>
18:00-18:15	Development of a bifunctional manganese oxide-based catalyst for the oxygen electrochemistry in electrically rechargeable zinc-air batteries <b>Michael F. Fink</b>
18:15-18:30	Comparative analysis of shore-to-ship and ship-to-shore synchronization strategy for high voltage shore connection systems <b>Robert Smolenski</b>
18:30-18:45	Electrochemical study of Na insertion into nanocrystalline $Li_4Ti_5O_{12}$ <b>Markéta Zúkalová</b>
18:45-19:00	Renewable Energy Based Microgrids for Sustainable Development in The Western Balkans <b>Taha Selim Ustun</b>

**Friday, 7 April 2017**  
**"Auditorium B"**

**Sessions: Hydrogen**

**Chair: Angelika Brückner, (Leibniz Institute for Catalysis, Germany)**

09:00-09:15 | All that glitters isn't gold - Plasmonic coinage metal particles in visible-light driven H<sub>2</sub> production watched by in situ spectroscopy  
**Angelika Brückner**

09:15-09:30 | Nanostructuring a means to control H-embrittlement of Pd films  
**Amarante J. Böttger**

09:30-09:45 | Interesting Hydrogen Storage behaviour of volcanic powders  
**Rolando Pedicini**

09:45-10:00 | Improving dehydrogenation properties of MgH<sub>2</sub> by addition of dihydrogen complexes  
**Basile Galej**

10:00-10:15 | Solid State hydrogen storage and production for mobility applications  
**Martin Khzouz**

10:15-10:30 | Electric fields as means to improve the hydrogen storage capacity of metal-organic frameworks  
**Liviu P. Zarbo**

10:30-10:45 | Ammonia borane confinement in graphene oxide 3D structures for H<sub>2</sub> storage  
**Simon Champet**

10:45-11:30 | **POSTER SESSION & COFFEE BREAK (at the Atrium)**

**Session: Hydrogen**

**Chair: Umit Bilge Demirci (University of Montpellier, France)**

11:30-11:45 | Boron- and nitrogen-based compounds for chemical hydrogen storage  
**Umit Bilge Demirci**

11:45-12:00 | Modeling of hydrogen absorption into magnesium  
**Yuta Kitagawa**

12:00-12:15 | Physical and chemical destabilization of ammonia borane for an improved hydrogen storage system  
**María José Valero**

12:15-12:30 | Hydrogen production by ethanol steam reforming over supported CoNi catalysts  
**Sonia Damyanova**

12:30-12:45 | Unexpected behaviour of novel complex hydrides under high static pressure  
**Ewelina Magos-Palasyuk**

12:45-13:00 | WITHDRAWN

13:00-14:00 | **LUNCH BREAK (Buffet at the Atrium)**

**Session: Materials, Processes and Systems for Energy Saving and Sustainability / Energy-Efficient Buildings**

**Chair: António Cândido Lampreia Pereira Gonçalves ( Higher Technical Institute (IST), Portugal)**

14:00-14:15 | Tetrahedrite-based Materials as a Source of Sustainable Energy  
**António Cândido Lampreia Pereira Gonçalves**

14:15-14:30 | The Conservation of the Energy by the Use of Local Materials in Buildings  
**Dilara Tüfekçioglu**

14:30-14:45 | Mycelium Acoustics (Phase 1) - Exploring the acoustic properties of mycelium based bio-composites  
**Anita Ollár**

14:45-15:00 | Particulate Solid Waste for Dye Removal and Degradation in Effluents: A Doubly Beneficial Strategy for the Environment  
**Iseli Lourenço Nantes**

15:00-15:15 | Innovative evaporator designs enable increased process energy efficiency  
**Stephan Scholl**

15:15-15:30 | Electrochemical synthesis of Cu<sub>3</sub>(BTC)<sub>2</sub> metal organic framework for CO<sub>2</sub> and CH<sub>4</sub> adsorption  
**Ali Asghar Ghoreyshi**

- 15:30-15:45 | Microstructure evolution of new nickel alloys in the operation of the test loop HWTI  
**Magdalena Speicher**
- 15:45-16:00 | An assessment on the impacts of the integration of photovoltaic power generations on the reliability of distribution networks  
**Ebrahim Shayesteh**
- 16:00-16:15 | Effect of Dust accumulation on the solar cells efficiency at Jazan region  
**Rachid Karmouch**
- 16:15-16:30 | Dry lithiation process for all-solid state electrochromic devices  
**Gamze Atak**

**POSTER PRESENTATIONS**  
(at the Atrium)

**Wednesday, 5 April 2017**  
From 16:30 to 17:15

**Session: Energy production from Biomass – Biofuels**

Code	Title	Presenter(s)
W1	Pyrolysis of olive bone in a fluidized bed reactor: characterization of bio-oil and char	<b>Josep Oriol Pou Ibar</b>
W2	Modeling the need for solid biofuels for local heating in villages	<b>Kamila Vavrova</b>
W3	New generation redox-active electrode materials for high-performance supercapacitor applications: Poly(3,6-dithienylcarbazole) derivatives	<b>Mustafa Güllü</b>
W4	Natural antioxidants for biodiesel application	<b>Marcia Gabriela Pianaro Valenga</b>
W5	The use of agro-industrial waste as antioxidant for biodiesel	<b>Marcia Gabriela Pianaro Valenga</b>
W6	Prospective energy power of corncob husk and its biochars: Kinetic parameters and isoconventional models	<b>Carolina de Castro Bueno</b>
W7	Issues regarding the use of bio-fuels and other types of renewable fuels for the purpose of reducing environmental pollution in Romania	<b>Vasilica Daescu</b>
W8	Characterization and catalytic activity of calcium silicate based catalysts in methanolysis of sunflower oil	<b>Zeljka Kesic</b>
W9	Improving Microbial Fuel Cell efficiency by using of Modified Cathodes	<b>Mostafa Rahimnejad</b>
W10	The effect of ultrasound on the conversion of cellulose to 5-hydroxymethylfurfural	<b>Solmaz Akmaz</b>
W11	Conversion of 5-hydroxymethylfurfural (HMF) to 2,5-Dimethylfuran (DMF) using Co based catalysts	<b>Solmaz Akmaz</b>

W12 Acid hydrolysis study of *Cyperus esculentus* tubers for alcohol production

**Guilherme José Turcatel Alves**

**Session: Fuel Cells**

Code	Title	Presenter(s)
W13	Corrosion of nickel-coated stainless steel for OER catalyst in alkaline electrolysis	<b>Hee Sook Ro</b>
W14	Study on hydrogen production via diesel-hydrogen peroxide fuel processor for subsea applications	<b>Sungback Cho</b>
W15	Implantable glucose fuels cells - molybdenum phthalocyanine complexes as bio inspired oxidation catalysts	<b>Jann Sonnenfeld</b>
W16	Analysis of the anode diffusion layer properties on a passive direct methanol fuel cell (DMFC) using electrochemical impedance spectroscopy (EIS)	<b>Beatriz Braz</b>
W17	Pd/biocarbon electrocatalyst for ethanol oxidation reaction in alkaline medium: correlation between physicochemical properties and electrocatalytic performance in EOR by in-situ ATR-FTIRS	<b>Célia de Fraga Malfatti</b>
W18	Influence of the carbon support properties on the PdSn/C ethanol oxidation reaction in alkaline medium	<b>Célia de Fraga Malfatti</b>



**Thursday, 6 April 2017**

**From 10:45 to 11:15 and from 16:00 to 16:30**

**Session: Solar Energy**

Code	Title	Presenter(s)
T1	An energy-stored boost inverter for photovoltaic systems	<b>Minh-Khai Nguyen and GeumBae Cho</b>
T2	The formation of SnS thin films by physical vapor transport	<b>Dongha Lim</b>
T3	Influence of deposition methods on Cu <sub>2</sub> O thin films for solar cell application	<b>Jae Yu Cho</b>
T4	TiO <sub>2</sub> solar cells using natural extracts	<b>Ana Paula Camargo Matheus</b>
T5	Fabrication of Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> Thin Film Solar Cell by introducing a Carbon Intermediate Layer at the Absorber/Back Contact Interface	<b>Jin Hyeok Kim</b>
T6	Influence of surface etching treatment for the high efficient Cu <sub>2</sub> ZnSn(S,Se) <sub>4</sub> (CZTSSe) thin film solar cell	<b>Hongjae Shim</b>
T7	Forward bias (EL) and reverse bias luminescence (ReBEL) imaging of silicon solar cells using a consumer grade camera	<b>Killian Lobato</b>
T8	Improved performance of bulk-heterojunction solar cell embedding PbS nanoparticles with mixed surface-capping agents	<b>Susana Fernández de Ávila López</b>
T9	Photoelectrode morphology and kinetic processes in dye-sensitized solar cells with ionic liquid electrolytes	<b>María Jesús Ariza</b>
T10	Study of interdigitated back contact silicon heterojunctions solar cells by 2D- numerical simulations	<b>Kherreddine Ghaffour</b>
T11	Digital charge controller for battery bench in a photovoltaic system	<b>Sabah Hana Saidj</b>
T12	Experimental Study of a Plan Solar Still Region of Béchar, South Algeria	<b>Maamar Abdelkarim</b>
T13	Influence of zinc oxide morphology on hybrid solar cells	<b>Sandra R. Masetto Antunes</b>

**Session: Energy Transmission, Distribution and Storage**

Code	Title	Presenter(s)
T14	Hot water stores in segmental construction: adhesive strength between sealing materials and segment coatings	<b>Stephan Lang</b>
T15	Battery-based DC-linked-type quasi-switched-boost inverter for ESS applications	<b>Minh-Khai Nguyen and GeumBae Cho</b>
T16	Safe Lithium-ion Battery Electrolytes based on Organic Carbonates	<b>Zhengqi Wang</b>
T17	Study of Nusselt number evolution in PCM shell-and-tube configuration	<b>Mohammed Bechiri</b>
T18	The Analysis of the Number of the Resonator about the Air Intake System	<b>ChangChun Xu</b>

**Session: Nuclear Energy and Materials**

Code	Title	Presenter(s)
T19	Development of Tritium Permeation Barrier coating for fusion TBM in CIAE	<b>Hongguang Yang and Yuan Xiaoming</b>
T20	Formation of Fe-Al/Al <sub>2</sub> O <sub>3</sub> Tritium Permeation Barrier Coating by a Low Temperature Pack Cementation and Subsequent Oxidation Process	<b>Yuan Xiaoming</b>
T21	Study on the fabrication and properties of the lithium orthosilicate pebbles by improved gel-casting method	<b>Hongguang Yang</b>

**Session: Geothermal Energy**

Code	Title	Presenter(s)
T22	New Geothermal Database for Hungary	<b>Aniko N. Toth</b>

**Friday, 7 April 2017**

**From 10:45 to 11:30**

**Session: Hydrogen**

Code	Title	Presenter(s)
F1	Hydrogen production by the methane reforming with carbon dioxide on Mg-promoted Ni/H-Y zeolite catalyst	<b>Heondo Jeong</b>
F2	Hydrogen Production by Pressurized Methanol Fuel Reformer utilizing Latent Heat	<b>Hyunjin Ji</b>
F3	Characterization of metal/oxide catalyst for methanol steam reforming synthesized by glycine-nitrate process	<b>Junghun Lee</b>
F4	Hydrogen production using ethylenediaminetetraacetic acid	<b>Ana Paula Camargo Matheus and Neide Takata</b>
F5	The influence of high pressure hydrogen on the non-metallic materials in the hydrogen infrastructure	<b>Seung Hoon Nahm</b>
F6	H <sup>+</sup> -reduction using SnIV-porphyrinoid molecules as photosensitizers in photocatalytic reaction	<b>Luise Mintrop</b>
F7	Methods of increasing the production of bio hydrogen by genetically modifying <i>E. coli</i> strands	<b>Irina Alexandra Paun</b>
F8	Recycled ZnO from zamak wastes as support of Ni catalyst. Preparation of highly active catalyst for the sustainable production of hydrogen by steam reforming of bioethanol	<b>Antonio Chica</b>
F9	Storage of hydrogen on modified active carbon	<b>B. Buczek</b>
F10	Don Quichote: Demonstration of How to Produce Hydrogen Using Wind Energy	<b>Ahmed Aly</b>

**Session: Energy-Efficient Buildings  
Materials, Processes and Systems for Energy Saving and Sustainability**

Code	Title	Presenter(s)
F11	The effect of different aggregate grading on the properties of normal and lightweight pervious concretes	<b>Goran Baloevic</b>

F12	Investigation of the ionic conductivity mechanism of LiNbO <sub>3</sub> thin films by EIS method	<b>Gamze Atak</b>
F13	A guide presenting strategies for the application of renewable energy in existing buildings	<b>Rahmani Khadidja</b>
F14	Surface modification and sulfur-rich functionalization of microporous carbons for elemental mercury adsorption	<b>Moon Hyeon Kim</b>
F15	Capitalization of the renewable potential energies of coastal areas in integrated systems	<b>Andreea Baraitaru</b>
F16	Complex system for electricity production based on the cumulative effect of different sources of renewable energy	<b>Diana Simona Fronescu</b>
F17	Photochemical reduction of Cr (IV) in aqueous solution containing Na <sub>4</sub> W <sub>10</sub> O <sub>32</sub>	<b>Asmae Bouziani</b>
F18	Energy characterization and classification of apartment buildings in Algeria	<b>Yassine Maoudj</b>
F19	Study of energy and materials costs reduction in anodization and coloration of aluminium AA5053 alloy	<b>Guilherme José Turcatel Alves</b>

**Session: Energy Harvesting Materials**

Code	Title	Presenter(s)
F20	Low temperature Energy harvesting from waste used tires	<b>Awni Al-Otoom</b>
F21	Synthesis of CdS/CdSe core-shell heterostructure nanowires towards solar cells application	<b>Sutripto Majumder</b>

## VIRTUAL PRESENTATIONS

(available at the online platform on the conference website from 28 March to 7 April)

Title	Presenter(s)
Optimized sizing of PV Battery standalone system (case study Tunisia)	<b>Abir Aissaoui</b>
Thermochemical conversion of a lignocellulosic waste by estimating the pyrolysis yield of its basic compounds	<b>Mónica Calero</b>
Production of raw starch degrading amylase by <i>Bacillus subtilis</i> TLO <sub>3</sub> and its application in bioethanol production from starch-rich flours	<b>Slimane Choubane</b>
Productive technologies of biogas and biodiesel fuel by transformation of energy from wastes of appearing in establishments of the public catering	<b>Alexey Elizaryev</b>
Advances the monitoring of photovoltaic systems - Use of the Internet of Things (IoT) of a photovoltaic installation	<b>Pedro Gómez Vidal</b>
Performance of fuel cell integrated system and packed-bed reactor for electric energy generation	<b>Andrea Hurtado Ruiz</b>
Global energy sustainability: brief analysis of World Energy Trilemma and prospective scenarios as tools for discussion	<b>Silvina Magdalena Manrique</b>
Multi Role of Novel Ru Based Dye in Enhancing the Performance of Hybrid TiO <sub>2</sub> /P <sub>3</sub> HT Solar Cells	<b>Karunanantharajah Prashanthan</b>
Possibility of producing briquettes from cashew shell press cake	<b>Marie Sawadogo</b>
Improved Gas Diffusion in Solid Oxide Fuel Cells through using Cellulose Microfibrils as a Pore Formers in Electroless Co-Deposited Anodes	<b>Rob Turnbull</b>
The outdoor performance of four different PV technologies in Poland	<b>Agata Zdyb</b>