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ICFEM 2017

14th International Conference on Functional Energy Materials

December 06-07, 2017 Dallas, USA

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energymaterials@materialsconferences.org

Energy Materials 2017

Invitation

Dear Attendees,

We are glad to announce the **14th International Conference on Functional Energy Materials** to be held in **Dallas, USA** during **December 06-07, 2017** organized by **Conference Series LLC** in collaboration with generous support and cooperation from enthusiastic academicians and editorial Board Members.

This conference is a unique international platform that's a confluence of all stake holders of the ecosystem – Industry, Academia, Researchers, Innovators, Regulators – coming together to present and discuss current topics in Advances in Energy Materials, Materials Science, Nanotechnology, Biomaterials, Materials Chemistry and Polymer Technology and will be available to discuss with you the latest issues and trends in ***Functional Energy Materials for Sustainable Future.***

As the premier event, we have developed a program with your interests in mind. We have not only increased the number of opportunities for you to network with colleagues from across the world but also introduced more focused sessions that will feature cutting edge presentations, special panel discussions, and livelier interaction with industry leaders and experts.

Life is full of give and take. Make it count in your professional life. Attend the Energy Materials Conference to network with your peers, exchange expertise and experiences, and arm yourself with the latest information to take your department to the next level.

We look forward to personally welcoming you to **Dallas** this December

Sincerely,

Energy Materials 2017

Organizing Committee

Market Analysis

Growing energy requirements need augmented efforts on developing materials and technologies that target energy generation, energy conversion and energy storage. Energy crisis is an emerging issue and the world is struggling to find a suitable environment-friendly energy option for its denizens. The global energy market is expanding rapidly.

Take the instance of energy harvesting materials like piezoelectricity materials. The worldwide piezoelectricity materials market size was valued at USD 1.17 billion in 2015. Rising quality of piezoceramicso on account of exhibiting high dielectric constant for the assembly of electronic merchandise is predicted to drive business growth. Over the past few years, major production corporations are increasing investments towards the implementation of automation systems as a very important tool to cut back operational price throughout production. Rising importance of automation within the manufacturing sector as a tool for increasing efficiency and reducing time period is predicted to push the usage of actuators and therefore will fuel the demand for piezoelectricity materials over the forecast time.

Nano technology is playing an important role in energy sector. The marketplace for nanofabrication instrumentation can grow at a compound annual rate of growth of 10.4 % over the period 2009 to 2014 and reach $90.4 billion in this year, as per Innovative analysis and product INC. (Stamford, Connecticut). At the same time the marketplace for semiconductor wafers can grow at a CAGR of 14 % to double and reach $20.6 billion in this year, the corporate said. Corporations concerned in nanofabrication materials, apparatus, science and testing for the IT and industry had sales in way over $80 billion in 2007 and more than $73.5 billion in 2008. R&D spending for improved nanofabrication techniques and instrumentation exceeds $7 billion a year at the corporate level.

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Solar cells are being researched for higher and regular utilization. For example, recently the International star alliance, consisting of over a hundred and twenty countries, has been committed $1 trillion as investment and it's committed to cut back the costs of alternative energy for remote and inaccessible communities. The World Bank is playing major role in mobilizing over $1000 billion in investments which is needed by 2030. In 2013 thin-film technologies accounted for around 9 % of worldwide utilization, whereas 91% by crystalline Si (mono-Si and multi-Si). With 5% of the overall market, CdTe holds over 0.5 of the thin-film market. As per a study, prepared by the International Renewable Energy Agency (IRENA), recent solar modules are valued at $15 billion in reusable material by the year 2050. IRENA estimates that PV panel waste may total 78 million tonnes globally.

Energy saved is energy generated. Funds are being granted by the all government institutes on tools and materials to avoid wasting the generated energy. The worldwide marketplace for electrical conduction technologies ought to reach $5.3 billion by 2021 from $3.4 billion in 2016 at a compound annual growth rate (CAGR) of 9.4%, from 2016 to 2021. The report by Markets and Markets segments the superconducting wire market by application into energy, medical, research, industry, and others. The energy application section is predicted to grow at the quickest rate throughout the forecast period. Development of smart cities and strict energy-efficiency standards can probably drive the energy section that is predicted to make new revenue pockets for the superconducting wire market throughout the forecast period. North America has been active in the field of super capacitors since the start and is ceaselessly creating enhancements in this technology to create it a lot of possible and sensible use. The research of superconductors, in universities like University of Houston, and Massachusetts Institute of Technology in the U.S. have created many

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breakthroughs in superconductor technologies for medical, energy, and industrial applications. High investments are made to commercialize superconductors and to use its benefits to the fullest.

Storage and retrieving of electricity by batteries and cells is not sufficient for the jumping energy global demand. For instance, in 2014, the fuel cell industry grew by almost $1 billion, reaching $2.2 billion in sales, up from $1.3 billion in 2013. There has been a revitalization of applications for large-scale fuel cells. There has also revived interest in emergency backup power fuel cells for both regular and emergency responders.

According to research firm IHS, the energy storage market is about to “explode” to annual installation size of 6GW in 2017 and over 40 GW by 2022 — from an initial base of solely 0.34 GW installed in in 2012 and 2013. For instance, the California Public Utilities Commission (CPUC) approved a target requiring the state’s 3 largest investor-owned utilities, aggregators, and alternative energy service suppliers to generate 1.3 GW of energy storage by 2020.

According to the new report “Supercapacitor Market by type (Double Layer, Pseudocapacitor, and Hybrid), Application (Laptop, Camera, Power Backup, Memory, UPS, Aircraft, Solid-State Disc Drives) Vertical, and geography - world Forecast to 2022”, the supercapacitor market is estimated to be valued at USD 568.2 million in 2015 and is anticipated to achieve USD 2,181.2 Million by 2022 at a CAGR of 20.7 from 2016 and 2022. Factors like high storage capabilities, requirement of power conservation, high performance supercapacitors for consumer and automotive applications, and extra capabilities like humidity resistant, light-weight and low equivalent series resistance are the key drivers for supercapacitor market.

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Smart grids for smart cities: per Bloomberg New Energy Finance, worldwide annual smart grid spending grew by 12% for the duration of 2015. Different energy marketing research teams, as well as GTM research, Navigant and TMR, predict that annual investment on smart grid sub-sectors grow from 5-18. Investment in these areas is anticipated to extend in each established and rising markets. The ITA (International Trade Administration) assesses that the present marketplace for all U.S. smart grid exports – as well as T&D instrumentation, smart grid ICT product and services, and energy storage technologies – is valued at $30 billion annually. These exports leverage U.S. investments to upgrade the domestic electrical smart grid and maximize the growing world market.

Resources from bio waste are abundant and research in exploiting to the fullest is encouraged. Production of chemicals from biomass offers a promising chance to cut back the dependence on foreign oil, associated to boost the economic science and sustainability of an integrated biorefinery. Recent analysis shows the market share of bio-based chemicals in the world industry to extend from 2 in 2008 to 22 by 2025, and therefore the market potential for bio-based chemicals may reach $19.7 billion by 2016. The world biogas market is probably going to soar among the assessment period. The market may witness a CAGR of 6.5% in the years to come. The world biogas market showcased a promising growth in 2015 as the sales spurred and total value of the market increased to US$ 24000 Mn.

Small wind turbines (1 kW – 50 W), provide auxiliary power generator for a ship, caravan, or miniature refrigeration unit. Small wind turbines supplement 17.3 MW of generating capability throughout the USA in 2008, according to the American Wind Energy Association (AWEA).

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Each abstract will be provided with digital Object Identifier by crossref

About Conference

- Energy Materials 2017 Conference website is attracting **25000+ Materials researchers and Engineers** visitors ranging from Researchers, Academicians and Business professionals, who are working in this field. This unique opportunity that we extend to our speakers and attendees is not being offered by any other conference organizers. Through this the abstracts and research profiles of our speakers and organizing committee members getting global visibility which is an additional feature that you would be receiving in addition to networking opportunities before, during and after the conference.

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Conference Website: http://energymaterials.conferenceseries.com/

About Conference

Purpose

14th International Conference on Functional Energy Materials is an arena for interdisciplinary exchange among professionals in the fields of Energy Materials & Materials Science.

Goals

- The conference program emphasizes evidence-based practice, educational innovation, practical application, and peer to peer networking and collaboration. The goals of the conference is to provide a transformative professional development experience through
- Bringing together the world's scientific experts to catalyze and advance scientific knowledge about Energy Materials & Materials Science present the most recent research findings, and promote and enhance scientific collaborations around the world
- Bringing together community leaders, scientists, and policy leaders to promote and enhance programmatic collaborations to more effectively address regional, national and local responses to Elderly Population around the world and overcome barriers that limit access to care and services.

Objectives

After participating in this meeting, attendees should be able to

- Discuss emerging issues in Energy Materials & Materials Science
- Discuss and apply recent research findings related to Energy Materials & Materials Science
- Reflect on the place of critical distance in Energy Materials & Materials Science

About Conference

Who should attend

14th International Conference on Functional Energy Materials is exclusively designed for Key Researchers, Scientists, Academicians, Industrialists, Professionals of aviation and automobile companies, Young Entrepreneurs along with PhD scholars and Students related to the field of Advances in Energy Materials, Materials Science, Nanotechnology, Biomaterials, Materials Chemistry and Polymer Technology.

About hosting organization

Conference Series is the world's leading specialist in organizing Academic, Scientific and Business conferences, meetings, symposiums and exhibitions in different verticals and horizontals like Medical, Pharma, Engineering, Science, Technology and Business to promote scientific research. Every year we host more than **3000+ global events** inclusive of **1000+ Conferences 1000+ Symposiums 1000+ Workshops** in **USA, Europe, Middle East and Asia** with the generous support and cooperation from our **30000+ Editorial Board Members, 1000+ Scientific Societies.** All the conference proceedings are published in the special issues of our **700+ Open Access International Journals** with the **DOI** provided by crossref

Major sessions

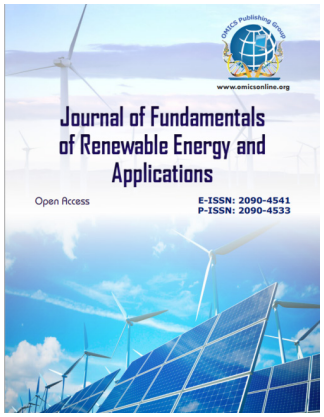
- Functional Energy Materials
- Materials for Solar Energy
- Nanotechnology and Energy Materials
- Superconducting Materials
- Energy Storage Materials
- Energy Harvesting Materials
- Materials for Smart Homes
- Materials for Unconventional Energy Sources
- Applications of Functional Energy Materials in Various Fields
- Entrepreneurs Investment Meet

Journals

Supporting Journals

- Journal of Material Sciences & Engineering
- Innovative Energy & Research
- Journal of Fundamentals of Renewable Energy and Applications
- Journal of Architectural Engineering Technology







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About Dallas

Why Dallas: Dallas is one of the main cities of Texas and fourth most populous metropolitan city in United States. The city's noticeable quality emerged from its recorded significance as a center of the oil and cotton industries and various railroad lines. The greater part of the city is in Dallas County, of which it is situated; in any case, areas of the city are situated in Collin, Denton, Kaufman, and Rockwall districts. As per the 2010 United States Census, the city had a populace of 1,197,816. The United States Census Bureau's gauge for the city's populace expanded to 1,300,092 as of July 1, 2015.

A humid subtropical climate is there in Dallas which generally experiences in the Southern Plains of the United States. In winter, the average minimum and maximum temperature are experienced 3 °C and 14°C respectively with common snowfall. Summer is hot and humid with minimum and maximum temperature of 25 °C and 36 °C respectively. The price of oil has dropped suddenly in mid-2014 and increasing throughout 2015 has not affected the city and its huge metro due to its highly diversified economic nature. The growth of Dallas has not been affected by this whereas the other oil dependent regions had to suffer significantly in 2015. Dallas was considered as a "beta in addition to" world city by the Globalization and World Cities Study Group and Network and also ranked fourteenth in world GDP rankings by the Organization for Economic Co-operation and Development as per the recent discharged ranking in 2013.

Venue & Accommodation

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Contact us

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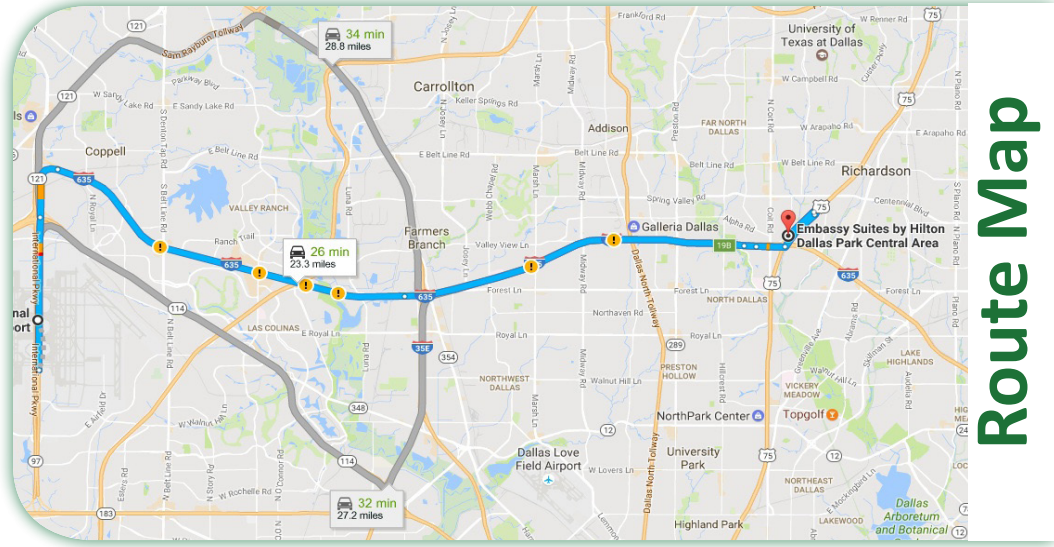
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Registrations

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Only Registration: **USD 799**
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Student

Young Research Forum: **USD 449**
Student Poster: **USD 400** (USD 300 + USD 100 for Poster)
Student Delegate: **USD 300**
E-poster: **USD 99**

To register online, please visit:
http://energymaterials.conferenceseries.com/registration.php

Important Dates

Abstract submission opens: **January 02, 2017**
Registration opens: **January 05, 2017**
Early bird registration: **June 30, 2017**
On spot registration: **December 06, 2017**