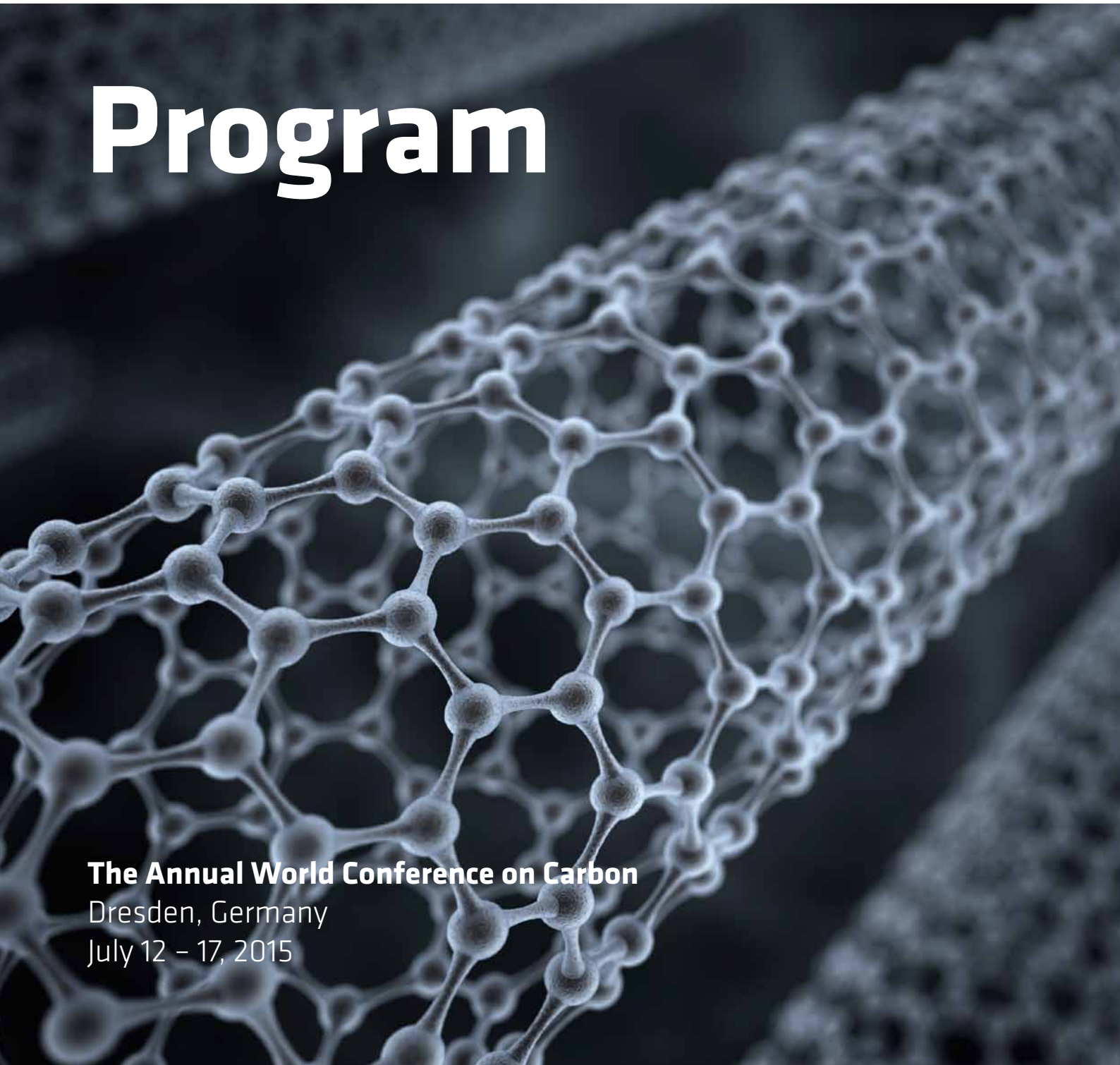
CARBON 2015

INNOVATION WITH CARBON MATERIALS

Hosted by the
German Carbon Group:



Program

The Annual World Conference on Carbon
Dresden, Germany
July 12 – 17, 2015

SUPPORTING COMPANIES

We would like to thank the following companies and institutions for their support of CARBON 2015 conference.

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WELCOME

to CARBON 2015,
The Annual World Conference on Carbon
Dresden, Germany | July 12 – 17, 2015

In the name of the German Carbon Group (AKK) I would like to cordially welcome you in Dresden for the Annual Conference on Carbon 2015. The triennial sequence between the Americas, Asia and Europe started with the Annual World Conference 2000 in Berlin. We are convinced that Dresden is a distinguished place to host this conference in one row with Berlin and formerly the cities of Essen and Baden-Baden. Dresden is a city with a rich historical background, famous for its baroque architecture and the amorous adventures of the former King of Saxony and Poland August "the Strong". Dresden was severely destroyed at the end of World War II, and later suffered during the communist time. After the reunification of Germany in 1990, many buildings have been restored and Dresden regained its ancient splendor.

The motto of this year's conference is "Innovation with Carbon". This implies the wish that academic researchers and the carbon and graphite industry may intensify their cooperation and support each other in the path from idea to successful marketing in current and future fields of carbon materials. The number of submitted papers was 626. Thereof 25% dealt with the topic of carbon for energy storage, and 17% with nanoforms of carbon. Industrial papers represented 4% only. Energy storage is without doubt one of the crucial fields for the coming human generations. However, none of the industrial players in this field is represented in the conference. The World Carbon Council may consider this fact for the organization of the coming World Carbon Conferences to strengthen the attractiveness of this conference.

The German Carbon Group thanks all sponsors for their financial support. The organization of this conference is always a financial challenge for the national carbon groups. This issue may also be discussed by the World Carbon Council.

The organization committee wishes all participants a week of interesting presentations and discussions, but also an enjoyable time in Dresden. Thank you for your participation which makes this conference a success.

For the German Carbon Group (AKK)
Wilhelm Frohs
President

COMMITTEES

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Board Member of the German Carbon Group

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ORGANIZERS

AKK – Arbeitskreis Kohlenstoff

GERMAN CARBON GROUP

The AKK is an independent group within the German Ceramic Society (Deutsche Keramische Gesellschaft e. V., DKG) and in the European Carbon Association (EAC). Its task is the exchange of experience and information in the field of carbon between science and practice. In the AKK statute, professional exchange, the discussion of future research topics, and the support of research on carbon are named as the main objectives of the working group.

Each year in spring and fall, meetings are held, as well as an annual general meeting. The meetings are thematically connected to current challenges for the carbon industry in research and practice, such as "Gas-Phase Processes of Carbons" or „Carbon Materials in Functional Polymers". The AKK also represents the producing German carbon industry on international conferences.

The AKK currently has three working groups:

➔ Characterization and Terminology – The technical group characterizes new carbon compounds and develops a suitable terminology

➔ Raw materials: Solids and Binders – Ring tests, the discussion on solids and binders, and work in standardization characterize the group's work

➔ New forms of carbon – The use of novel forms of carbon is the main focus of the group

DKG - Deutsche Keramische Gesellschaft e. V.

GERMAN CERAMIC SOCIETY

The DKG is the oldest association for ceramic professionals and for the ceramic industry in Europe since 1919. Its predecessor organization was founded already in 1913. Today, the DKG has more than 250 institutional and 650 personal members. This makes it the largest ceramic organization in Europe and a leading member of the European Ceramic Society (ECerS). It also cooperates with other international ceramic organizations, such as the American, Brasilian, Indian and Italian Cermaic societes.

The DKG promotes research on new materials, products, and market development. Bringing together ceramic industry and scientific institutions, it supports the cooperation and the development of the research community. Annually, more than 40 seminars, forums, workshops, symposia, and exhibitions are organized by the DKG and its members. The DKG also publishes the association journal "cfi Ceramic Forum International/Ber. der DKG" and the "Journal of Ceramic Science and Technology".

TOPICS AND PLENARY LECTURES

The topics of CARBON 2015 cover the whole range of research on and the application of carbon, and so do the plenary lectures. They represent the motto of this year's conference: INNOVATION WITH CARBON MATERIALS.

Topics

- **Activated Carbon and Adsorption**
- **Biomass-derived Carbons**
- **Carbon Blacks**
- **Carbon Fibers and Composites**
- **Carbon Materials for Energy Storage**
- **Granular Carbon and Graphite/ Nuclear Graphite**
- **Industrial Carbon and Graphite**
- **Nanoforms of Carbon**
- **Natural Graphite**
- **Conversion Processes**
- **Physical and Chemical Properties and Characterization**
- **Enivronmental and Medical Applications**

Plenary Lectures


Hubert Jäger, Roland Weiss:
"The Carbon Fibre Age – Markets & Application, Today and Tomorrow"

Malcolm Heggie:
"Graphite – a remarkable and complex material analysed ab initio"

Masayuki Kawaguchi:
"Carbon Alloys in Energy Systems"

Rodney Taylor:
"Carbon Black: A New Look at an old Nanomaterial"

PLENARY SPEAKERS' CV

Professor Malcolm Heggie

Professor Malcolm Heggie studied physics and chemistry at the University of Exeter, UK, and completed his PhD in theoretical physics in 1982. He stayed at Exeter University for the following 14 years, becoming first a Postdoctoral Research Fellow, then Industrial Research Fellow, and finally Senior Research Fellow in computer science. From 1996, Heggie worked as a Lecturer, Reader and Professor in theoretical chemistry at Sussex University. Since 2012, he has been Professor of Physical and Computational Chemistry at Surrey University. Professor Heggie is also the founder of NanoteC, one of the longest-running series of international nanoscale carbon conferences in Europe, which he started in 1998. He is Chairman of the British Carbon Group and Fellow of the Royal Society of Chemistry, where he won special recognition awards in 2005 and 2008. Professor Heggie has published a remarkable number of essays in academic journals and handbooks, such as The Physical Rewiev B, Journal of Nuclear Materials, Diamond Materials or the Handbook of Ceramic Hard Materials.
At the conference, Mr. Heggie will speak about the material graphite and the modern method of ab initio calculation, which gives us the possibility to take a closer look at the energetics and dynamics of the material.

Professor Dr. rer nat. Hubert Jäger

Professor Hubert Jäger graduated from the University of Karslruhe, Germany and wrote his PhD thesis on the impact performance of carbon fibre reinforced polymers. He started his career in 1986 as a manager for raw materials at the pilot plant in Meitingen, Bavaria, entering SIGRI, a predecessor of today's SGL Group. Since then, Professor Jäger has been holding a number of operative and technological executive positions within SIGRI and the SGL Group, concentrating on the fields of cathodes and graphite electrodes. Since 2005, he has been head of SGL's Group research „Technology and Innovation", building an ultra-modern research infrastructure at the site of Meitingen. Professor Jäger promotes close networking between industry, science and research. In his country, he holds important positions in various relevant societies inside the industry. He is for example Spokesman of the Management Board of the Institute of Lightweight Engineering and Polymer Technology at the Technische Universität Dresden and President and Chief Executive Officer at the Carbon Composites e. V.
At Carbon 2015, Professor Jäger will give a lecture together with Dr. Roland Weiß. Their topic is the significance of lightweight carbon composite materials in the context of an efficient use of energy. They will name examples for the use of those materials and give an insight into the most recent research results.

Professor Masayuki Kawaguchi

Professor Kawaguchi finished his PhD thesis in the field of engineering at Kyoto University in 1984. For the following ten years, he worked as Researcher and Chief Researcher in the service of Central Glass Co. Ltd., Japan, before starting his career at Osaka Electro-Communication University. Here, he first became Lecturer, then Associate Professor and Professor in his field. Mr. Kawaguchi still teaches at Osaka Electro-Communication University. From 2005, the professor was and still is Chairman of various relevant societies, such as the Society of Graphite Compounds and the 117th Committee of the Japan Society for the Promotion of Science (JSPS). In 2012, he won an academic award from the Carbon Society of Japan.
In his lecture at Carbon 2015, Professor Kawaguchi will focus on hetero-atom substituted carbon alloys, particularly Boron, Carbon and Nitrogen, and their role in our energy system.

Dr. Rodney L. Taylor

While he wrote his PhD thesis on Material Science at the Pennsylvania State University, Mr. Taylor already started working as a Research Chemist for the Columbian Chemicals Company, serving the Senior Vice President R&D and the department of Business Development. He stayed with Columbian Chemicals for almost 30 years, focusing on carbon black additives. In 2009, Dr. Taylor left Columbian Chemicals, but continued working and researching in the field of carbon black. Taylor worked for Sid Richardson Carbon and Energy, where he was in charge of special projects, before he became Director of Carbon Product Development at Antlantic Hydrogen and, in 2013, Vice President Process Development and Innovation at Orion Engineered Carbons in Cologne, Germany. Dr. Taylor is also Chairman of the American Carbon Society.
At Carbon 2015, Dr. Taylor's topic will be the business of carbon black and its principle method of manufacture. Despite the long-term commercial use of the material, the advantages of carbon black are not widely appreciated.

Dr. Roland Weiß

Dr. Roland Weiß studied chemical science at the University of Karlsruhe and wrote his PhD thesis on the characteristics of the fibre/matrix-interface of carbon-fibre-reinforced polymeric compound parts. Since 1984, he has been Head of the Chemical Laboratory at Schunk Kohlenstofftechnik in Heuchelheim, Germany. Since 1988, he has also been Head of the Department of Composites at Schunk Kohlenstofftechnik. Dr. Roland Weiß researches and publishes in the fields of ceramic composites and new forms of carbon. He is Chairman of the Managing Board of Ceramic Composites e. V. and Chairman of the study group „New Forms of Carbon" in the German Carbon Group.
At the conference, Dr. Weiß will give a lecture on the Carbon Fibre Age, together with Professor Jäger.

SOCIAL AND ACCOMPANYING ACTIVITIES

Welcome Reception

SUNDAY, 12 JULY 2015 06:00 – 09:00 PM

We would like to welcome you on Sunday in the conference center to offer everyone an opportunity to get to know each other better already one day before the official opening of CARBON 2015. Finger food and drinks will be offered.

Conference Dinner

THURSDAY, 16 JULY 2015, 07:30 – 11:30 PM

The Conference Dinner will take place at the castle of Proschwitz. Proschwitz castle is located in the region of Meissen, famous for its porcelain. Today's owner is again the family of Lippe, one of the oldest noble houses in Germany. Prince Georg of Lippe and his wife Alexandra Princess of Lippe will welcome us at the opening of the Conference Dinner. To the castle belongs the oldest private vineyard of Saxony. During the Conference dinner we have the opportunity to taste local wines but also beer in a cheerful environment accompanied by performances of local artists. ***Transportation to Proschwitz Castle will be provided by busses departing at the Conference Centre from 6:00 pm and going back at night.***

Scientific Friday

FRIDAY, 17 JULY 2015, 08:45 – 12:00 AM

On Friday, July 17, 2015, several scientific reaerach institutes can be visited. Registration for the Science Day will take place on site. ***Transportation to the sites will be provided by bus in a round trip. Buses depart from the Conference Centre at 08:45 am.***

→ Dresden University's Institute of Lightweight Engineering and Polymer Technology (ILK): The ILK focuses on research, education and development in the field of modern lightweight engineering. Its activities stretch from research into fundamental concepts to application-oriented and innovation-driven development projects in cooperation with industrial partners. ↗ *www.tu-dresden.de/mw/ilk*

→ Fraunhofer Institute for Ceramic Technologies and Systems (IKTS): The IKTS conducts application-oriented research in the field of high-performance ceramics. It is one of the largest institution for ceramics research in Europe and focuses on ceramic materials, manufacturing processes, prototype components and systems. ↗ *www.ikts.fraunhofer.de*

→ Leibniz Institute of Polymer Research (IFP): The IPF is among largest polymer research facilities in Germany. Its activities comprise basic research on functional polymer materials and the development of materials with new or improved characteristics, as well as combining material development with production and processing technologies. ↗ *www.ipfdd.de*

Conference Fair

The conference fair is held in the foyer of the congress center, accompanying the conference. 12 exhibtors will be presenting their developments and innovations in the field of carbon.

AWARDS

Brian Kelly Award

The award is intended as a travel grant for students and early career researchers with up to ten years postdoctoral experience to attend the annual International Carbon Conference.

THE AWARD GOES TO DR. GRAHAM RANCE

Carbon Journal Prize 2015

The journal Carbon and its publisher Elsevier will once again be awarding the Carbon Journal Prize, which will be announced at the International Carbon Conference. The prize is given for "an outstanding Ph.D. thesis in carbon material science and technology" in 2014.

TO BE ANNOUNCED DURING CARBON 2015

ECA Award 2015

The award is given according to the recommendation of the ECA Award Committee and seeks to honor "Remarkable service to carbon science community" with the recipient holding the respect of their colleagues and "having been influential and supportive towards others in the pursuit of scientific excellence or having made a significant contribution in providing a strong foundation to the community of carbon scientists and technologists in order to promote a flourishing and healthy environment for scientific achievement".

THE AWARD GOES TO PROF. MAURIZIO PRATO

Utz-Hellmuth Felcht Award

Honored will be outstanding scientific and technological contributions in the field of carbon materials and related materials. This comprises polygranular carbon and graphite materials, carbon fibers and their composites, applications of carbon and graphite in energy production, energy storage and energy savings, nanoforms of carbon and breakthroughs in manufacturing and new applications. Quintessential contributions in computer modeling of these materials will be considered as well. In general, the award will honor a single scientific and technological contribution which provided recent impact of significance on manufacturing and application or has the character of a breakthrough in science. The Utz-Hellmuth Felcht Award is presented biennially on the occasion of the International Carbon Conferences. The selection of the awardees is dedicated to an International Award Committee composed of six renowned scientists and persons of high standing in the carbon industry.

THE AWARD GOES TO PROF. DR. HUI-MING CHENG

PROG

GRAM

SUNDAY, 12TH JULY 2015

14:00–18:00	**Conference registration** International Congress Center Dresden
14:00–18:00	**Construction Conference Exhibition** Hall 1-4/Saal 1-4 International Congress Center Dresden
18:00–21:00	**Welcome Reception** Terrace/Terrassenebene International Congress Center Dresden

MON

13TH JU

DAY,
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08:00–09:00	**Conference Registration**
08:45–09:00	**Opening Remarks** Great Hall/Großer Saal
09:00–10:00	**PLENARY LECTURE I** **The Carbon Fibre Age—Markets & Application, Today and Tomorrow** JÄGER, Hubert / WEISS, Roland Chairman: **KYOTANI, TAKASHI** JAPAN Room: Great Hall/Großer Saal
10:00–10:30	**C O F F E E B R E A K**

	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	NANOFORMS	GRANULAR AND NUCLEAR CARBON
Chairman	**Frackowiak, Elzbieta** POLAND	**Radovic, Ljubisa R.** UNITED STATES	**Hurt, Robert** UNITED STATES	**Garret Neighbour** UNITED KINGDOM
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
10:40–11:00	**Na and Li ion storage properties of Phosphorus molecules inserted in single-walled carbon nanotube hollow cores** Kawasaki, Shinji JAPAN	**Incorporation of Nitrogen Atoms from Precursors into the Graphene Lattice of Carbon Materials by Solid State and Gas Phase Routes** Sachdev, Herman GERMANY	**The Role of Functionalisation in the Graphene Supply Chain** Stirling, Chris UNITED KINGDOM	**Identification of Isolated rhombohedral crystallites in graphite blocks and study of its formation mechanism by using HRTEM** He, Lian Long CHINA
11:00–11:20	**Interfacial lithium-ion transfer reaction between graphite negative electrode and sulfide-based solid electrolyte in all-solid-state lithium secondary batteries** Fukutsuka, Tomokazu JAPAN	**Adsorption and phase behavior of water in ordered nanoporous carbons** Thommes, Matthias UNITED STATES	**Progress in Graphene Materials Application** Centeno, Alba SPAIN	**Multi-scale modelling of neutron irradiation damage in graphite** Trevethan, Thomas UNITED KINGDOM
11:20–11:40	**Improving the microstructure and electrochemical performance of carbon nanofibers containing graphene-wrapped silicon nanoparticles as a Li-ion battery anode** Kim, Bo Hye SOUTH KOREA	**Characterization of a zeolite-templated carbon by in situ Raman spectroscopy** Leyva-Garcia, Sarai SPAIN	**Synthesis of sintering-resistant platinum catalysts using graphene oxides** Ogino, Isao JAPAN	**Structure: property relationships in models of nuclear graphite** Heggie, Malcolm UNITED KINGDOM
11:40–12:00	**Stable, High Capacity Carbon-Silicon Anodes for Li-ion Batteries Using Directed Assembly** Bose, Arijit UNITED STATES	**Carbon tetrakaidecahedra lattices** Celzard, Alain FRANCE	**Production of few-layer graphene from carbon singular raw materials by shear exfoliation** González, Zoraida SPAIN	**Petroleum pitches as binders for fine grained molded carbon artifacts** Pereira, Maria Helena BRAZIL
12:00–12:20	**"Metal nonoconfinement" in porous carbons: an valuable concept toward highly performing electrode materials for Li+ ion batteries** Matei Ghimbeu, Camelia FRANCE	**Flame Retarding Effect of Graphite in Polyethylene** Focke, Walter SOUTH AFRICA	**A continuous process on mass production of multi-layered graphene and their relative applications on functional coating** Wu, Ting-Yu TAIWAN	**Simulation of Radiation Damage in Graphite using Molecular Dynamics** Marks, Nigel AUSTRALIA
12:20–13:50	**L U N C H**			

	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	NANOFORMS	GRANULAR AND NUCLEAR CARBON/ NANOFORMS
Chairman Room	**Beguin, Francois** POLAND Great Hall Großer Saal	**Malcolm Heggie** UNITED KINGDOM Conference Room 6 Konferenzraum 6	**Depine de Castro, Luiz** BRAZIL Conference Rooms 4/5 Konferenzräume 4/5	**Trevethan, Thomas** UNITED KINGDOM Conference Rooms 2/3 Konferenzräume 2/3
14:00–14:20	**Performance and optimization of a flow capacitor under continuous flow operatio** Lee, Juhan GERMANY	**The lowest molecular weight PAH to form liquid crystalline mesophase: a monodisperse pyrene trimer** Thies, Mark UNITED STATES	**One-pot process to synthesize reduced graphene oxides / metal nanowires hybrid materials for the preparation of flexible transparent conductive films** Tai, Nyan-Hwa TAIWAN	**Fracture energy analysis of isotropic graphite materials** Saito, Yosuke JAPAN
14:20–14:40	**Hierarchical structure design of porous carbon-based composites for high-performance anodes of lithium-ion batteries** Li, Baohua CHINA	**Mapping particles for applications using surface energy** Nikova, Ani UNITED STATES	**Approaches to hierarchical and hybrid graphene-based materials** Stride, John AUSTRALIA	**Photodegradation of phenol and methylene blue on mesoporous graphitic carbon nitride mpg-C_3N_4 under artificial solar light irradiation** Matos, Juan CHILE
14:40–15:00	**Flexible, Binder-Free Graphene Paper Electrodes for High-Performance Lithium Rechargeable Batteries** Park, O Ok SOUTH KOREA	**Intercalation of gold thin layers into graphite Van der Waals's nanospaces** Herold, Claire FRANCE	**Explosive and non-explosive modes of graphite oxide thermal exfoliation and its safety implications** Kulaots, Indrek UNITED STATES	**Measurement Device for Aluminum Wettability of Carbon & Graphite Materials used in Electrolysis Cells** Schmitt, Rainer GERMANY
15:00–15:20	**High-Capacity Carbon-Silicon Nanocomposite Anodes for Next-Generation Lithium-Ion Batteries: An Industrial Perspective** Ketterer, Bernt GERMANY	**Determination and tuning of Young's modulus modification in ion-implanted diamond** Battiato, Alfio ITALY	**The effect of the support in the catalytic activity of iridium NHC complexes covalently bonded to carbon nanotubes and graphene oxide** Alvarez, Patricia SPAIN	**Thermal Transport in Three dimensional Carbon Nanomaterial Networks** Prakash, Vikas UNITED STATES
15:20–15:40	**Alternatives to lithium in graphene based ion batteries** Pontiroli, Daniele ITALY	**Role of defects on superstructures revealed by STM on highly oriented pyrolytic graphite (0001)** Cisternas, Eduardo CHILE	**Intercalation route to conductive graphene films** Monthioux, Marc FRANCE	**Light-assisted synthesis of ordered carbon materials** Matei Ghimbeu, Camelia FRANCE
15:40–16:10	**C O F F E E B R E A K**			

	ENERGY STORAGE	ENVIRONMENTAL AND MEDICAL	NANOFORMS	ACTIVATED CARBON
Chairman	**Kawaguchi, Masayuki** JAPAN	**Blazewicz, Stanislaw** POLAND	**Yardim, Mehmet Ferhat** TURKEY	**Klose, Wolfgang** GERMANY
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
16:20–16:40	**Design Carbon / Surfur for high performance lithium sulfur batteries** Li, Feng CHINA	**Toxicity evaluation in Xenopus laevis tadpoles exposed to carbon based nanoparticles under normalized conditions** Flahaut, Emmanuel FRANCE	**Template synthesis of porous graphene electrodes having large surface area and high resistance to electrochemical oxidation** Kyotani, Takashi JAPAN	**Graphene vs. activated carbons in liquid-phase adsorption: any fundamental improvements?** Radovic, Ljubisa R. UNITED STATES
16:40–17:00	**Nanoporous carbon / graphite hybrid capacitors using sacrificial lithium derivatives for pre-lithiation of the graphite anode** Beguin, François POLAND	**Coating of nanoporous activated carbon for improved haemocompatibility** Mikhalovsky, Sergey KAZAKHSTAN	**On the synthesis of carbon nanofibers by microwave heating** Schwenke, Almut GERMANY	**Adsorption of Organochlorinated Insecticides on the Surface of Cyclodextrin Attached Activated Carbon and Graphene Hybrids** Rana, Vijay Kumar SWITZERLAND
17:00–17:20	**Design of carbonaceous materials for enhanced electrochemical performances of silicon/carbon composite nanofiber lithium-ion battery anode** Lee, Byoung-Sun SOUTH KOREA	**Removal of phenol contaminant from wastewater by the fabricated carbon nanotube membrane** Sadeghianz, Zahra IRAN	**Controlling Defects and Morphology of Nanotubes and Graphene during Growth: The Role of Dopants** Terrones, Mauricio UNITED STATES	**Modelling the influence of the operating conditions upon the kinetics parameters in the adsorption of lead(II)** Largitte, Lucie FRANCE
17:20–17:40	**Carbon Materials and Processing Techniques for Lithium Sulfur Batteries** Kaskel, Stefan GERMANY	**Synergizing carbon: Eumelanin / Graphene-like hybrid as promising candidate for applications in Bioelectronics and Nanomedicine** Alfe, Michela ITALY	**Porous Carbons with Defined Nanostructures** Lu, An-Hui CHINA	**Advanced Characterization of Nanoporous Carbons by, High-pressure 129Xe-NMR, n-Nonane Preadsorption, and Thermal Response Measurements** Oschatz, Martin GERMANY
17:40–18:00	**Synthesis and electrochemical performance of mesoporous carbon materials prepared by SiO_2 template as anode material for lithium-ion batteries** Song, Huaihe CHINA	**Growing of carbon nanofibers and carbon nanotubes inside of porous tubular substrates for application in membrane technology** Simon, Adrian GERMANY	**Facile synthesis of novolac phenolic based hierarchical carbon aerogels by ambient pressure drying** Jia, Xianfeng CHINA	**Control of crystallinity and pore structure of mesoporous carbons derived from MgO template process under high temperature condition** Nakazono, Tomoya GERMANY
18:00–18:20	**Ion milling as essential tool for the characterization of carbon-based electrodes in Lithium Ion Batteries** Müller, Marcus GERMANY	**Influence of biochar characteristics upon the photodegradation of methylene blue under UV-Visible irradiation** Matos, Juan CHILE	**Evolution of soot nanostructure in premixed hydrocarbon flames** Pre, Pascaline FRANCE	**Effect of processing parameters on properties of activated carbon from oil-palm shell with sodium hydroxide impregnation** Aussawasathien, Darunee THAILAND

TUES
14TH JU

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	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	CF AND COMPOSITES	ACTIVATED CARBON
Chairman Room	**Ozaki, Jun-ichi** Japan Great Hall Großer Saal	**Mukai, Shin** Japan Conference Room 6 Konferenzraum 6	**Köchling, Karl-Heinz** Germany Conference Rooms 4/5 Konferenzräume 4/5	**Neubauer, York** Germany Conference Rooms 2/3 Konferenzräume 2/3
08:40–09:00	**Electrochemical degradation of carbonaceous materials in aqueous and inorganic electrolytes** Miyazaki, Kohei Japan	**Adsorption measurements in 5 minutes** Woellner, Michelle Germany	**Carbon fibre surface enhancement using novel organic chemistry techniques: toward new generation materials** Servinis, Linden Australia	**Is sustainable manufacturing of activated carbon possible?** Arena, Noemi United Kingdom
09:00–09:20	**Use of Graphite as a Highly Reversible Electrode with Superior Cycle Life for Sodium-Ion Batteries by Making Use of Co-Intercalation Phenomena** Adelhelm, Philipp Germany	**Surface characteristics using XPS analysis of chemical pre-treated MWCNTs doped with O and N functional groups within a plasma process** Prenzel, Marina Germany	**Tailor-designed Phenolic Resins as C-Precursors applied in Liquid Silicon Infiltration (LSI) Process** Friess, Martin Germany	**Adsorption of Aurocyanide Ion $[Au(CN)^{2-}]$ on Activated Carbon: Transmission Electron Microscopy and Density Functional Theory Computational Studies** Yin, Chun-Yang United Kingdom
09:20–09:40	**Peculiar properties of mesoporous synthetic carbon / graphene phase composites and their effect on supercapacitive performance** Seredych, Mykola United States	**Computational analysis of boron-containing graphene using X-ray photoelectron spectroscopy** Yamada, Yasuhiro Japan	**The structure-spinnability relationship of mesophase pitch – the precursor of highly thermal conducting carbon fiber** Gong, Xiaoyi China	**Controlled synthesis of PdxCo nanoalloys confined in ordered carbons: Influence of metal particle size and composition on hydrogen interactions** Matei Ghimbeu, Camelia France
09:40–10:00	**Tracking global and local ion re-arrangement in carbon based supercapacitors using in-situ X-ray methods** Prehal, Christian Austria	**Synthesis of air-stable and highly electrically conductive graphite intercalation compounds** Matsumoto, Rika Japan	**Carbon based and graphene analogues (layered MoS_2) hybrid nanocomposites** Cravanzola, Sara Italy	**Adsorption of phenol on the carbon surface from various solvents** Soldatov, Aleksandr Russia
10:00–10:30	**C O F F E E B R E A K**			
10:30–11:30	**PLENARY LECTURE II** **Graphite—a remarkable and complex material analysed ab initio** Heggie, Malcom United Kingdom			
Chairman Room	**Hurt, Robert** Großer Saal/Great Hall			

	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	CF AND COMPOSITES	ACTIVATED CARBON
Chairman	**Yoshizawa, Noriko** JAPAN	**Metz, Joachim** GERMANY	**Hatori, Hiroaki** GERMANY	**Nakazono, Tomoya** GERMANY
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
11:40–12:00	**Tube diameter-dependent ion adsorption behavior of single-walled carbon nanotubes used as electrodes for electric double-layer capacitor** Ishii, Yosuke JAPAN	**Acid and base properties of N-doped graphite evaluated by local electronic structures** Nakamura, Junj JAPAN	**Ice templated graphene foams: A novel approach for producing layered ceramic/graphene composites** Garcia Rocha, Victoria UNITED KINGDOM	**Coadsorption of mixtures of H_2S and organic vapors under different humidity conditions** Lodewyckx, Peter BELGIUM
12:00–12:20	**Micro-supercapacitors based on hybrid carbon fibers** Chen, Yuan SINGAPORE	**Boron and Nitrogen-Doped Carbons for Base-Catalyzed Reactions** Kannari, Naokatsu JAPAN	**Solution Spun Lignin / PAN Hybrid Carbon Fibers and Their Properties** Morris, Ashley UNITED STATES	**Study of the diffusional mechanisms involved in the kinetic separation of CO_2 and CH_4 on a Carbon Molecular Sieve adsorbent** Pre, Pascaline FRANCE
12:20–12:40	**Synthesis of silica-templated ordered mesoporous carbon thin films as electrodes for micro-capacitors** Conzález-Gaitán, Carolina SPAIN	**Assessment of the structural evolution of phosphorus-containing carbons obtained at different temperatures using XPS, Raman and FTIR spectroscopy** Sobiesiak, Magdalena POLAND	**Renewable source nanostructured precursors for carbon fibers** Leschinsky, Moritz GERMANY	**Integrated Scheme for Removal and Decomposition of Organic Pollutants from Water and Air on the Base of Effective Carbon Adsorbents and Catalysts** Yardim, Mehmet Ferhat TURKEY
12:40–13:50	**L U N C H**			

	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	CF AND COMPOSITES	ACTIVATED CARBON
Chairman	**Öttinger, Oswin** GERMANY	**Thommes, Matthias** UNITED STATES	**Park, Chong Rae** KOREA	**Lodewyckx, Peter** BELGIUM
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
14:00–14:20	**Novel fabrication of micro-supercapacitors through electrospray of nanostructured carbon materials** Ruiz Rosas, Ramiro SPAIN	**Highly ordered helical turbostratic carbon of screwed-stacked cone and its intercalation behavior** Saito, Yukie JAPAN	**The properties of carbon nanotube enhanced composite materials with their alignment** Moon, Sooyoung JAPAN	**Absorption and regeneration of activated carbon for siloxane removal** Cabrera-Codony, Alba SPAIN
14:20–14:40	**MgO-templated carbon negative electrodes for Na ion capacitor** Kado, Yuya JAPAN	**Vibrational characterisation of high surface area carbons through multitechnical tools: an innovative approach** Lazzarini, Andrea ITALY	**Carbon Nanotube-based Epoxy Composites for Thermal Management** Prakash, Vikas UNITED STATES	**Studies on the targeted development of porous systems in biogenic process chars for PAH adsorption for their application in gas processing** Neubauer, York GERMANY
14:40–15:00	**Study of the influence of the surface functionality on carbon/carbon supercapacitors ageing by in operando ECMS** Raymundo-Pinero, Encarnacion FRANCE	**Thermal stability from soft to hard hydrogenated amorphous carbons analyzed using in-situ Raman spectroscopy. Application to tokamak carbon deposits** Pardanaud, Cedric FRANCE	**Active screen plasma treatment and characterisation of carbon fibres – A feasibility study** Corujeira Gallo, Santiago UNITED KINGDOM	**The role of texture on the adsorption of acetaminophen at different temperatures** Galhetas, Ana Margarida PORTUGAL
15:00–15:20	**Supercapacitors based on activated carbons from agricultural mill waste: adapting porosity to selected electrolytes** Redondo, Edurne SPAIN	**Highly crystalized graphite ultrathin film** Soneda, Yasushi JAPAN	**Monofilament mechanical test for anisotropic properties of carbon fiber** Iwashita, Norio JAPAN	**Application of the LBET class adsorption models to the analysis of the effect of production process conditions on the structural properties of the active carbons** Ziolkowska, Magda POLAND
15:20–15:40	**Core-Shell Carbons for High Power and High Energy Electric Double Layer Capacitors** Etzold, Bastian GERMANY	**Nanowindow characterization of single wall carbon nanotubilites by dynamic multimolecular probe adsorption** Vallejos-Burgos, Fernando JAPAN	**Effect of notch on static flexural behavior of carbon / carbon composites with different fiber orientations** Fu, Yewei CHINA	**High surface area activated carbons for the adsorption and photocatalytic degradation of methylene blue** Matos, Juan CHILE
15:40–16:10	**C O F F E E B R E A K**			

	ENERGY STORAGE	PHYSICAL AND CHEMICAL PROPERTIES	CF AND COMPOSITES	ACTIVATED CARBON
Chairman	**Rinn, Günter** GERMANY	**Adelhelm, Philipp** Germany	**Su, Dangsheng** CHINA	**Titirici, Magdalena** UNITED KINGDOM
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
16:20–16:40	**A Two Dimensional Highly Ordered Mesoporous Carbon / Graphene Nanocomposite for Electrochemical Double Layer Capacitors: Effect of Electrical and Ionic Conduction Pathways** Kim, Kwangbum SOUTH KOREA	**Roles of Water Molecules in Trapping Carbon Dioxide Molecules inside the Interlayer Space of Graphene Oxides** Yumura, Takashi JAPAN	**Facile and rapid green synthesis of nitrogen and sulfur doped ordered porous carbon** Moussa, Georges FRANCE	**Porous carbon-based gas sensors: Exploring the effects of surface features on sensing mechanism** Bandosz, Teresa J. UNITED STATES
16:40–17:00	**Development of active carbons' porous structure derived from biomasses for their application in supercapacitors** Pavlenko, Vladimir KAZAKHSTAN	**Size dependent properties of micro- and nano-diamonds** Panich, Alexander ISRAEL	**Synthesis of Carbon Nanofibers Incorporating Heteroelements Using the Liquid Pulse Injection Techinique** Mukai, Shin JAPAN	**Activated Carbon Fibers Derived from Regenerated Cellulose and their Application in Electrical Double Layer Capacitors** Pretschuh, Claudia AUSTRIA
17:00–17:20	**Exploring electrolyte organisation and nanoporous carbon structures in supercapacitors with solid-state NMR** Deschamps, Michael FRANCE	**Can biodegradable plastic films serve as a support for thin diamond-like carbon (DLC) coatings?** Fischer, Christian GERMANY	**Microwave Plasma Enhanced CVD graphene-based aerogels: synthesis and study** Mansurov, Zulkhair KAZAKHSTAN	**Robust Characterization of Activated Carbon Fibers (ACF) Using Adsorption of N_2 and Ar Analyzed by 2D-NLDFT Models** Jagiello, Jacek UNITED STATES
17:20–17:40	**Analysis of sodium ion stored in hard carbon using solid state Na NMR** Gotoh, Kazuma JAPAN	**Investigation of the surface properties of carbon nanoparticles** Bellmann, Cornelia GERMANY	**Magnetic thermoresponsive microspheres with carbon encapsulated hollow-Fe_3O_4 as cores for hyperthermia and controlled release** Chen, Lin CHINA	**Microporosity and nanostructure in activated carbons: characterization by X-ray scattering, Raman spectrometry and High Resolution-Transmission Electron Microscopy** Pardanaud, Cedric FRANCE
17:40–18:00	**Intriguing ion performance at carbon electrode / aqueous electrolyte interface in electrochemical capacitor** Fic, Krzysztof POLAND	**Stress Corrosion Cracking of Monolayer CVD-graphene** Lee, Seung-Mo SOUTH KOREA	**Uncovering Carbon Nanotube Networks on Polycarbonate Nanocomposite Surfaces by Solar-spectral Irradiation: Relevance to Nanofibre Release** Meyer-Plath, Asmus GERMANY	**Simulation of the Effect of Fluorine-Doping on the Adsorption and Transport of Water and Carbon-Dioxide in Silicon Carbide-Derived Carbon** Bhatia, Suresh AUSTRALIA
18:00–18:20	**Effect of carbon texture on the electrochemical performance of capacitors** Frackowiak, Elzbieta POLAND	**Influence of the C-TiO_2 interface on the photocatalytic activity of TiO_2** Matos, Juan CHILE	**High selectivity in carbon nanotube purification by high temperature oxygen / chlorine gas treatment** Desforges, Alexandre FRANCE	**1H-NMR study of hydrogen adsorbed on Grassy Carbons** Kumagai, Haruo JAPAN

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	ENERGY STORAGE	NANOFORMS	INDUSTRIAL	BIOMASS DERIVED CARBON
Chairman Room	**Wachtler, Mario** GERMANY Great Hall Großer Saal	**Monthioux, Marc** FRANCE Conference Room 6 Konferenzraum 6	**Taylor, Rodney** GERMANY Conference Rooms 4/5 Konferenzräume 4/5	**Reiche, Sylvia** GERMANY Conference Rooms 2/3 Konferenzräume 2/3
08:40–09:00	**Structure and Oxygen Reduction Reaction Activity of Carbon Nano-Onion Derived from Fullerene Residue** Maie, Takuya JAPAN	**Unique adsorption properties of water on pillared carbons** Matsuo, Yoshiaki JAPAN	**Regulatory Challenges for Coal tar Pitch Uses** Braun, Markus GERMANY	**Green synthesis of ordered mesoporous carbons from tannin** Fierro, Vanessa FRANCE
09:00–09:20	**Illuminating Carbon-Electrolyte Interactions: Solid-State NMR Studies on Model Carbons with well-defined Porosity** Borchardt, Lars GERMANY	**Strategies for preparing CNT-metal and CNT-ceramic composites with interesting mechanical and tribological properties** Laurent, Christophe FRANCE	**Vaporization behavior of refractory elements in graphitic matrices** Metz, Joachim GERMANY	**Hydrogel-based synthesis from sustainable biopolymers of nitrogen-doped mesoporous carbons with high capacitive performance** Olejniczak, Andrzej POLAND
09:20–09:40	**Electrical conductivity of carbon supercapacitor electrodes and its bearing on electrochemical performance** Presser, Volker GERMANY	**Development of high-strength carbon nanotube fibers by covalent crosslinking** Lee, Kun-Hong SOUTH KOREA	**Carbonization process of oxygen-containing aromatic compounds with the aid of calculation** Yamada, Yasuhiro JAPAN	**Tannin – based carbon polyHIPEs with tuneable porous and mechanical properties** Szczurek, Andrzej FRANCE
09:40–10:00	**Biosourced activated carbons with improved hydrogen storage capacities prepared by hydrothermal carbonisation** Schaefer, Sébastien FRANCE	**Improved electrical and thermal properties of CNT and graphene hybrid films** Kwon, Youbin SOUTH KOREA	**Development and challenges of self-baking electrodes** Leye, Johann-Christian GERMANY	**Carbonization of cellulose fibre precursors: experimental and modelling efforts** Heikkilä, Pirjo FINLAND
10:00–10:30	**C O F F E E B R E A K**			
10:30–11:30	**PLENARY LECTURE III** **Carbon Black: A New Look at an old Nanomaterial** Taylor, Rodney GERMANY			
Chairman Room	**Frackowiak, Elzbieta** Großer Saal/Great Hall			

	ENERGY STORAGE	NANOFORMS	INDUSTRIAL	BIOMASS DERIVED CARBON
Chairman	**Kaskel, Stefan** GERMANY	**Emmerich, Francisco** BRAZIL	**Clark, John** SOUTH AFRICA	**Fujimoto, Hiroyukin** JAPAN
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
11:40–12:00	**Quinone-functionalized zeolite-templated carbon as the electrodes for high energy density redox capacitor** Nueangnoraj, Khanin THAILAND	**Ultra-conductive wire of carbon nanotubes by floating CVD method** Fujishige, Masatsugu JAPAN	**Carbon Fiber Composites in Wind Turbines - Advantages and Challenges** Vogl, Christian GERMANY	**Early steps of carbonization by chemical activation: thermal analysis of catalytic torrefaction of impregnated wood** Tancredi, Nestor URUGUAY
12:00–12:20	**Tuning structure and porosity of onion-like carbon synthesized via thermal annealing of nanodiamond** Zeiger, Marco GERMANY	**Nanocarbon as catalyst and catalyst support** Su, Dangsheng CHINA	**Highly Compressible Carbon: Properties and Potential Applications** Zhou, Changjun UNITED STATES	**Green2 Multifunctional Composites of Natural Rubber and Nanocarbon from Food Waste** Kampioti, Katerina FRANCE
12:20–12:40	**Nanostructured materials functionalised for electrochemical energy storage applications** Stirling, Chris UNITED KINGDOM	**Creating of catalytic systems from oil sludge and soot for the synthesis of nanotubes** Lesbayev, Bakhytzhan KAZAKHSTAN	**Development of high performance needle coke by controlling coke structure and its application for Graphite electrodes and carbon materials for LiB** Kawachi, Hiroshi JAPAN	**Synthesis and Characterization of Activated Carbons from Tomato Waste (Solanum Lycopersicum) by Chemical Activation with K_2CO_3 and KOH** Yargic, Adife Seyda TURKEY
12:40–13:50	**L U N C H**			

	ENERGY STORAGE	***NANOFORMS***	***CF AND COMPOSITES***	***BIOMASS DERIVED CARBON/ CONVERSION PROCESSES***
Chairman	**Matei Ghimbeu, Camelia** FRANCE	**Kyotani, Takashi** JAPAN	**Iwashita, Norio** JAPAN	**Thies, Mark** UNITED STATES
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
14:00–14:20	**Monitoring single molecules on graphene** Choucair, Mohammad AUSTRALIA	**Palladium nanoparticles in catalytic carbon nanoreactors: the effect of confinement on Suzuki-Miyaura reactions** Rance, Graham UNITED KINGDOM	**Compatibilization of pitch-based carbon fibre with high performance thermoplastic by supramolecular assembly for adhesion promotion** Martin, Arnaud LUXEMBOURG	**Eco-friendly Catalysis and Photocatalysis on Biochar-based Materials** Matos, Juan CHILE
14:20–14:40	**Multi-Walled Carbon Nanotube based CFx and 3-D Graphene based electrodes for improved secondary battery performances** Pradhan, Bhabendra UNITED STATES	**Inkjet printing of polymer-wrapped graphene and CNT hybrid inks** Shim, Wonbo SOUTH KOREA	**New precursors for the development of carbon fibers: the case of lignin** Koumoulos, Elias GREECE	**E. coli-derived carbon with nitrogen and phosphorus dual functionalities for oxygen reduction reaction** Chen, Yuan SINGAPORE
14:40–15:00	**Effect of the Process Parameters for Oxygen Plasma Activation of Carbon Nanofibres on the Characteristics of Deposited Platinum Catalyst Nanoparticles** Rost, Ulrich GERMANY	**Carbon Nanotube-Silicon Nanowire Array Heterojunction Solar Cells** Jia, Yi CHINA	**Determining what key attributes are needed for strong lignin-based carbon fibres** Dodd, Angela UNITED STATES	**Reactive Interface-Assisted Co-assembly to Monodisperse Hollow Ordered Mesoporous Polymeric and Carbonaceous Nanospheres** Wu, Dingcai CHINA
15:00–15:20	**Nanostructured Carbon Materials for Electrocatalytic Energy Conversion Reactions** Harry Rahmat Suryanto, Bryan AUSTRALIA	**Carbon nanotube-enhanced electrode materials for lithium-ion batteries** Liu, Chang CHINA	**Low cost carbon fibres from polyethylene** De Palmenaer, Andreas GERMANY	**Hydrothermal carbonization (HTC) as a recovery technology for urban wastewater treatment** Wikberg, Hanne FINLAND
15:20–15:40	**Preparation and Structural Characterization of Macroporous Graphitized Carbons** Loeh, Marc GERMANY	**Graphene reinforced waterborne polyurethane composite coatings for anticorrosive properties and functional properties** Li, Jing CHINA	**Structured multilayer electrodes made of conductive polymer and carbon nanotubes for Polymer Electrolyte Membrane Fuel Cells** Long, Hongtao LUXEMBOURG	**Carbide-Derived Carbons as Metal-Free Catalysts for the Direct Dehydrogenation of Ethylbenzene** Etzold, Bastian GERMANY
15:40–16:10	**C O F F E E B R E A K**			

	ENERGY STORAGE	NANOFORMS	CF AND COMPOSITES	ENVIRONMENTAL & MEDICAL
Chairman	**González Gaitán, Carolina** SPAIN	**Presser, Volker** GERMANY	**Weseley, Hoffmann** UNITED STATES	**Etzold, Bastian** GERMANY
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
16:20–16:40	**Characterization of PEMFC catalytic layers based on carbon xerogel** Deschamps, Fabien BELGIUM	**Structural Properties of Nanodiamond and Nano-Boron Nitride** Johnson, Donald UNITED STATES	**Structure and mechanical characteristics of carbon fibers from aromatic polymer precursors** Hatori, Hiroaki JAPAN	**Monolithic Carbon Catalyzes the Fructose Conversion into 5-Hydroxymethylfurfural** Zhang, Jian CHINA
16:40–17:00	**Hierarchical nanocarbon for advanced lithium-sulfur batteries** Zhang, Qiang CHINA	**Structural difference of pyrolytic carbon particles on positively and negatively charged electrodes** Mukawa, Kei JAPAN	**Oxidation Protection by Multi-antioxidant Coating of Carbon/Carbon Brake Disks in the Absence and Presence of a De-icing Agent** Cho, Donghwan SOUTH KOREA	**Fast laser annealing nano-scale carbons: material transformations** Vander Wal, Randy UNITED STATES
17:00–17:20	**Catalysis of Dioxovanadium Ion Reduction at Carbonaceous Material with Fe–N_4 site** Maruyama, Jun JAPAN	**Carbon-Dots (C-Dots) - Polyol Synthesis and Intense Red Emission from Eu^{3+}-Modification** Dong, Hailong GERMANY	**The effect of nanostructure upon the tensile strength distribution of PAN-based carbon fibres** Okuda, Haruki UNITED KINGDOM	**Nanoporous carbons obtained by hydrothermal carbonization of carbohydrates and eutectic salt mixtures** Carvalho, Ana Paula PORTUGAL
17:20–17:40	**The role of boron in boron / carbon materials as anodes of lithium and sodium ion batteries** Kawaguchi, Masayuki JAPAN	**Visualization and Healing of Graphene Defects** Yoon, Taeshik SOUTH KOREA	**Influence of sample preparation on carbon fiber single filaments mechanical characterization** Franceschi, Fabio BRAZIL	**Air purifying effect of Activated Carbon Fibers installed in sound-insulation panel at highway in Japan** Yoshikawa, Masaaki JAPAN
17:40–18:00	**Graphene Based materials for Energy Storage** Fan, Zhuangjun CHINA	**TEM and EELS characterization of ultrathin carbon films with perpendicular/parallel orientation** Yoshizawa, Noriko JAPAN	**Massive Electrical Conductivity Enhancement of Multilayer Graphene / Polystyrene Composites Using a Non-Conductive Filler** Bose, Arijit UNITED STATES	**Preparation and characterization of TiO_2 / C hybrid aerogels as photocatalysts** Zhang, Rui CHINA
18:00–18:20	**Carbon Xerogels as Anodes for Lithium-Ion Batteries: model materials for the study of irreversible capacity losses in carbon materials** Piedboeuf, Marie-Laure BELGIUM	**Annealing Carbon Blacks: A Comparison of Timescales by HRTEM & Image Analysis** Vander Wal, Randy UNITED STATES	**Production and characterization of carbon felt from wool** Tancredi, Nestor URUGUAY	**The influence of carbon material properties on the efficiency of catalytic wet peroxide oxidation processes** Robeiro, Rui PORTUGAL

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	ENERGY STORAGE	CF AND COMPOSITES	INDUSTRIAL	BIOMASS DERIVED CARBON
Chairman Room	**Carvalho, Ana Paula** PORTUGAL Great Hall Großer Saal	**Cho, Donghwan** SOUTH KOREA Conference Room 6 Konferenzraum 6	**Leye, Johann-Christian** GERMANY Conference Rooms 4/5 Konferenzräume 4/5	**Morris, Ashley** UNITED STATES Conference Rooms 2/3 Konferenzräume 2/3
08:40–09:00	**Carbon Based Cathode and Anode Concepts for High Capacity Lithium-Sulfur Batteries with Enhanced Cycle Stability** Thieme, Sören GERMANY	**Copper and copper alloys as a composite matrix for recycle carbon fiber reinforcement** Klassert, Anton GERMANY	**Thermal Stress Testing of Carbon & Graphite Materials** Merklinger, Verena GERMANY	**Preparation of spherical nanoporous carbons by K_2CO_3 activation of biomass acid liquors derived chars** Mestre, Ana Sofia PORTUGAL
09:00–09:20	**Carbon foams and carbon black as collectors for concentrated solar energy** Focke, Walter SOUTH AFRICA	**In-situ tensile deformation and fracture behavior of high strength T1000 carbon fibers** Byun, Joon-Hyung SOUTH KOREA	**The development of highly anisotropic coke from an aliphatic waxy oil residue** Clark, John SOUTH AFRICA	**Selectivity of Functionalized Carbon Honeycomb Monoliths in Elimination of Azotaemic Toxins from Human Plasma** Jandosov, Jakpar KAZAKHSTAN
09:20–09:40	**Carbon-TiO_2 hybrid supports for the direct formic acid fuel cells on Pd-based catalysts** Matos, Juan CHILE	**Carbon Nanotube / Carbon Film Nanostructures for Nanoegineered Composites** Romero, Pablo SPAIN	**Intensive mixing, a universal mixing principle for carbon paste** Hohl, Berthold GERMANY	**Sustainable Carbon Materials and Chemicals from Biomass Hydrothermal Processes** Titirici, Magdalena UNITED KINGDOM
09:40–10:00	**Electrochemical response of doped ultrahigh micro / mesoporous carbon aerogel electrodes in saline water** Ania, Conchi. O. SPAIN	**Flexural fatigue behavior of 2D cross-ply carbon / carbon composites at room temperature** Li, Kezhi CHINA	**A quantitative analysis of trace amounts of hydrogen and surface oxygen complexes for graphites and high-temperature treated carbons in relation to their molecular structures** Ishii, Takafumi JAPAN	**Preparation of activated carbons through H_3PO_4-assisted hydrothermal carbonization of biomass wastes** Ruiz Rosas, Ramiro SPAIN
10:00–10:30	**C O F F E E B R E A K**			
10:30–11:30	**PLENARY LECTURE IV** **Carbon Alloys in Energy Systems** Kawaguchi, Masayuki JAPAN			
Chairman Room	**Cheng, Hui-Ming** Großer Saal/Great Hall			

	ENERGY STORAGE	CF AND COMPOSITES	INDUSTRIAL	BIOMASS DERIVED CARBON
Chairman	**Cadek, Martin** GERMANY	**Vignoles, Gerard** FRANCE	**Hohl, Berthold** GERMANY	**Kulaots, Indrek** UNITED STATES
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
11:40–12:00	**Hydrogen Storage on Graphene** Lyth, Stephen JAPAN	**A model of defective graphene nanoribbons to explain longitudinal physical properties of MPP-based carbon fibers** Emmerich, Francisco BRAZIL	**Development of carbon materials from recycled graphite powders** Petasch, Uwe GERMANY	**Hydrothermal Carbonization (HTC): A "Natural" Process for Sustainable Fuels, Chemicals and Catalysts** Pileidis, Filoklis UNITED KINGDOM
12:00–12:20	**Carbon Alloy Catalysts for Hydrogen Evolution Reaction Derived from Wool and Metal Compounds** Takigami, Machiko JAPAN	**The Black Art of Developing Stages of Carbon Paper as Efficient Materials for Energy Generation, Storage, and Conservation** Maheshwari, Priyanka INDIA	**Exploring carbon deposition over Iron and Iron oxides (FeO, Fe_{203} and Fe_{304}) from SYNGAS mixture at low temperature (500 – 600°C): Kinetics and morphology** Bost, Nicolas FRANCE	**Biomass-based disc electrodes by hydrothermal synthesis** Reiche, Sylvia GERMANY
12:20–12:40	**Surface chemical studies of boron and nitrogen doped carbons for oxygen reduction reaction** Ozaki, Jun-ichi JAPAN	**Study of Cuprous Oxide / Graphene nano composites by using electroless plating at room temperature** Hsieh, Shu-Huei GERMANY	**A size-dependent thermodynamic model for graphitic crystallites integrating the binary interactions of sulfur / hydrogen with carbon up to 2500 K** Ouzilleau, Philippe CANADA	**Biomass-Derived Porous Nitrogen-Containing Carbonaceous Materials** Zhao, Li CHINA
12:40–13:50	**L U N C H**			

	ENERGY STORAGE	CF AND COMPOSITES	CARBON BLACK/ ENVIRONMENTAL & MEDICAL	BIOMASS DERIVED CARBON
Chairman	**Handl, Werner** GERMANY	**Weiss, Roland** GERMANY	**Frohs, Wilhelm** GERMANY	**Ania, Conchi O.** SPAIN
Room	Great Hall Großer Saal	Conference Room 6 Konferenzraum 6	Conference Rooms 4/5 Konferenzräume 4/5	Conference Rooms 2/3 Konferenzräume 2/3
14:00–14:20	**Nanocarbon materials and their hybrids for Na-ion batteries** Zhang, Biao FRANCE	**Effects of Hydrophobic Agent Content in Macro-Porous Substrates on the Fracture Behavior of the Gas Diffusion Layer for PEMFC** Kim, Sanwi SOUTH KOREA	**X-ray scattering measurements on the condensation and vaporization of carbon nanoparticles by changing the flame conditions** Ossler, Frederik SWEDEN	**Carbon meringues derived from flavonoid tannin** Szczurek, Andrzej FRANCE
14:20–14:40	**Enhancement of Electrochemical Capacitance in Porous Carbons with Redox Organic Molecules** Itoi, Hiroyuki JAPAN	**Finite Element analysis of Carbon / Carbon composites thermal dilation based on X-ray microtomographic data** Vignoles, Gerard FRANCE	**Preparation of Carbon Nanoparticles through the Liquid Pulse Injection Technique** Iwamura, Shinichiroh JAPAN	**Biomass-derived Carbon Quantum Dots Sensitizers for Solid-State Nanostructured Solar Cells** Marinovic, Adam UNITED KINGDOM
14:40–15:00	**Carbon containing silicium based inorganic membranes** Jüttke, Yvonne GERMANY	**A Fabrication Process for C/C Composites Containing TaC Filler** Djugum, Richard AUTRALIA	**Functionalization of carbon black with hyperbranched Polyethyleniime** Morales-Lara, Francisco SPAIN	**Activated biochar with tailored porosity and its application in water treatment and energy storage** Dehkhoda, Amir Mehdi CANADA
15:00–15:20	**Electrode materials for water splitting: Different approaches to bind catalytic active manganese oxide to conductive carbon supports** Buller, Saskia GERMANY	**Study of the Interfacial Properties of Carbon Fibre Composites using Dynamic Mechanical Analysis and Quantitative Nanomechanical Mapping** Creighton, Claudia AUSTRALIA	**Carbon-polymer dressings for the treatment of chronic wounds** Mikhalovsky, Sergey KAZAKHSTAN	**Phosphorus-nitrogen doped carbon for electrochemical purposes** Rybarczyk, Maria POLAND
15:20–15:40	**A New Carbon Model with Ultra-Hydrophilic, Heteratom-Doped Properties toward Applications in Energy Storage and Conversion** Hao, Guang-Ping GERMANY	**Obtaining hydrophobic soot with iron nanoparticles** Nazhipkyzy, Meruyert KAZAKHSTAN	**Manufacturing of Carbon membranes with tailored properties for gas separating processes** Reger-Wagner, Norman GERMANY	**Carbon tubules containing nanocrystalline SiC produced by the graphitization of sugar cane bagasse** Fujimoto, Hiroyuki JAPAN
15:40–16:00	**C O F F E E B R E A K**			

16:00–16:45	**AWARD SESSION**
Chairman	**HURT, Robert** UNITED KINGDOM
16:45–17:15	**Closing remarks**
	CONFERENCE DINNER
18:00–19:00	Depature Congress Center (30 km / 50 min)
19:00–23:00	Conference Dinner **Wine estate and Castel of Proschwitz / Weingut Schloss Proschwitz** *www.schloss-proschwitz.de*
23:00–00:00	Return Congress Center (30 km / 50 min)

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Monday, 13th July 2015

ACTIVATED CARBON

Wall №	Title	Name	Country
01	**Breakthrough Curves of CO_2 and CH_4 on Carbon Molecular Sieves – Experiment and Modelling**	Moeller, Andreas	GERMANY
02	**Adsorption of 2,4-dcichlorophenoxyacetic acid onto mesoporous activated carbon prepared from a waste of fruit juice industry by chemical activation**	Kilic, Murat	TURKEY
03	**Synthesis of Carbon Aerogels and its Characterization by Immersion Calorimetry**	Fonseca-Correa, Rafael Alberto	COLOMBIA
04	**Effect of activation temperature on the textural and chemical properties of chemically activated carbons using hydroxides as activation agents**	Kilic, Murat	TURKEY
05	**Adsorption Calorimetry used for Characterization of Activated Carbons Obtained from Cerrejon Region Coals by Physical and Chemical Activations**	Moreno-Pirajáan, Juan Carlos	COLOMBIA
06	**Preparation and characterization of activated carbon from pomegranate peel by chemical activation with potassium and sodium carbonates**	Kilic, Murat	TURKEY
07	**Influence of $ZnCl_2$ and $FeCl_3$ activation agents on pore structure of biomass-based activated carbon**	Kilic, Murat	TURKEY
08	**Comparison between lignin xerogel and lignin carbon xerogel for amonnia adsorption**	Castro, Chris Daniela	COLOMBIA
09	**The Effect of oxygen group combination on CO_2 Adsorption behavior of Porous Carbon**	Lee, Young-Seak	SOUTH KOREA
10	**Radon adsorption in microporous activated carbons**	Schaefer, Sébastien	FRANCE
11	**Effects of surface chemical properties of activated carbon fibers modified by HF treatment for CO_2 adsorption**	Bai, Byong Chol	SOUTH KOREA
12	**Sorption of Oil in Produced Water by Exfoliated Graphite**	Takeuchi, Kenji	JAPAN
13	**Tailored Fe_3C-derived Carbons with Embedded Fe Nanoparticles for Ammonia Adsorption from Air**	Walton, Krista	UNITED STATES
14	**New fractal equations to model the lead concentration decay in the adsorption of lead by a fractal activated carbon**	Largitte, Lucie	FRANCE
15	**Adsorption properties of activated carbons fibers obtained from Kevlar®**	Dziura, Aleksandra	POLAND
16	**Application of the clustering-based models with the original fluid state model to an analysis of high temperature gaseous adsorption isotherms on the carbonaceous materials**	Ziółkowska, Magda	POLAND
17	**Adsorption mechanisms in view of the computational studies of adsorbent-adsorbate interaction potential**	Ziółkowska, Magda	POLAND

ENERGY STORAGE

Wall №	Title	Name	Country
18	**Nitrogen-doped aligned carbon nanotube/graphene sandwiches: 3D hierarchical hybridization and surface modulation towards excellent lithium-sulfur batteries**	Tang, Cheng	China
19	**Graphene barriers in oxygen evolution electrocatalysis: interfacial modulation and performance enhancement**	Tang, Cheng	China
20	**Nanosized NiFe LDH confined in graphene frameworks: topology-assisted synthesis and superior performances for oxygen evolution electrocatalysis**	Tang, Cheng	China
21	**Multilayered Graphene-Biopolymer Supercapacitor**	Navarro-Suárez, Adriana	Spain
22	**Electrochemical performance of lignin carbon xerogel**	Castro, Chris Daniela	Colombia
23	**Preparation and characterization of hybridized carbon nano fibers with three-dimensional channeled structure**	Lee, Young-Seak	South Korea
24	**Characterization of hydrogen storage in Ni doped and Fluorine introduced activated carbon fiber**	Lee, Young-Seak	South Korea
25	**Enhanced Electrochemical Characteristics of Activated Carbon Fiber-Based EDLC Electrodes via Fluorination**	Kim, Min Il	South Korea
26	**Electrochemical Properties of E-beam irradiated Activated Carbons for Electric Double-layer Capacitors**	Kim, Do Young	South Korea
27	**Multifunctional photoelectronic conductive film for flexible devices based on carbon nanotubes**	Chae, Minsu	South Korea
28	**Effect of thermal treated carbon felt on electrochemical properties for redox flow battery electrode**	Cho, Seho	South Korea
29	**Electrochemical Evaluation of Organic Electrolytes Containing Lithium-salt for High Energy/Power Hybrid Supercapacitors**	Secchiaroli, Marco	Germany
30	**Capacitance properties of nitrogen-doped ordered carbons obtained through nanocasting routes**	Fierro, Vanessa	France
31	**Tailoring the porosity of tannin-based electrodes for supercapacitors**	Fierro, Vanessa	France
32	**Si-enriched Porous Carbons from Rice Husks for Capacitive Deionization**	Jung, Doohwan	South Korea
33	**Spheroidization of Natural Graphite Flakes in Lab Scale**	Rapp, Manfred	Germany
34	**Tailored Amorphous Carbons for Carbon-Silicon Nanocomposite Anodes in Next-Generation Lithium-Ion Batteries**	Röthinger, Johannes	Germany
35	**Ionic Liquid Assisted Synthesis of N-doped Mesoporous Carbon/Graphene Nanocomposite for Supercapacitors**	Kim, Ho Seok	South Korea
36	**Electrochemical behaviour of activated carbons obtained by environmentally friendly strategies**	Lozano Castello, Dolores	Spain

GRANULAR / NUCLEAR CARBON

Wall №	Title	Name	Country
37	**Preparation of delayed cokes by two-stage pyrolysis of coal tar**	JUNG, Doohwan	SOUTH KOREA
38	**In situ graphitization of carbide-derived carbon monoliths**	KERN, Andreas	GERMANY
39	**Investigation of petroleum pitches wetting behaviour**	PEREIRA, Maria Helena	BRAZIL

NATURAL GRAPHITE

Wall №	Title	Name	Country
40	**Structural analysis of potassium-graphite intercalation compounds by transmission electron microscopy combined with image processing**	MIYAZAKI, Takashi	JAPAN

PHYSICAL AND CHEMICAL PROPERTIES

Wall №	Title	Name	Country
41	**Synthesis of Nitrogen-doped MWCNTs and their length shortening as a function of ultrasonication energy input in aqueous dispersions**	FUGE, Robert	GERMANY
42	**Enhanced Thermoelectric Properties of BiCuSeO/Polyaniline Composites**	LAN, Jin le	CHINA
43	**Functionalization of multiwalled carbon nanotubes with amines and ammonia**	JĘDRZEJEWSKA, Anna	POLAND
44	**Preparation of reformed pitch from pyrolysis fuel oil by direct fluorination and its characteristics**	KIM, Do Young	SOUTH KOREA
45	**Effect of pitch contents in pitch/PVA slurry on thermal and mechanical behavior of graphite foam using a template method**	LEE, Young-Seak	SOUTH KOREA
46	**Evaluation of Functional Groups on Carbon Materials by the TPD method**	MATSUMURA, Kazuki	JAPAN
47	**Discussion of ternary Graphite Intercalation Compounds's structure after desalination reactions**	YASUTAKE, Takuya	JAPAN
48	**Microwave analysis of a suspension comprising single-walled carbon nanotubes**	PADDUBSKAYA, Alesia	LITHUANIA

Wall №	Title	Name	Country
49	**Quantitative analysis of oxygen-containing groups on Carbon Nanotubes**	Schönherr, Jan	Germany
50	**Development of Measurement Method and Prediction Model of Vapor Liquid Equilibria of the System Including Coal Tar Pitch at High Temperature**	Hirahara, Satoshi	Japan
51	**Electromagnetic properties of carbon foams**	Celzard, Alain	France
52	**Laboratory characterization of self-baking electrodes for the metallurgical industry using the example of alternative pitch research**	Leye, Johann-Christian	Germany
53	**Characterization of pre-treated carbon nanotubes (CNT) and deposition of vanadium oxides via atomic layer deposition (ALD)**	Düngen, Pascal	Germany
54	**Experimental and modelled multi-wavelength Raman spectroscopy studies of various carbon materials**	Monthioux, Marc	France
55	**Graphite melting: atomistic kinetics resolves long-standing controversy**	Orekhov, Nikita	Russia
56	**Modelling dislocations and their dynamics in a graphite crystallite**	Heggie, Malcolm	United Kingdom
57	**Micro-Mesopore Analysis of Ordered Nanoporous Carbons by Combining High Pressure CO_2 Adsorption at 273 K with Novel Hybrid NLDFT-QSDFT Kernels**	Thommes, Matthias	United States
58	**Mechanism of graphene and soot particles formation in flames**	Auyelkhankyzy, Moldir	Kazakhstan
59	**Graphene vs. high-surface-area carbons in catalytic applications: any fundamental improvements?**	Radovic, Ljubisa	United States
60	**Advanced Spectroscopic Analyses on a:C-H Materials: Revisiting the EELS Characterization and its Coupling with multi-wavelength Raman Spectroscopy**	Pardanaud, Cedric	France
61	**Synthesis and Characterisation of Graphene materials**	Centeno, Alba	Spain
62	**B/C/N graphite-like structure: determination of the chemical composition and intercalation of metals in lithium-based alloys.**	Herold, Claire	France
63	**Transition behavior of elastic properties in the graphitic structure, from mono to several tens of layers**	Hwangbo, Yun	South Korea
64	**Origins of sp3C peaks in C1s X-ray photoelectron spectra**	Yamada, Yasuhiro	Japan
65	**Production of hightly active carbon metal mixtures for synthesis of condenced systems**	Lesbayev, Bakhytzhan	Kazakhstan

ENVIRONMENTAL AND MEDICAL

Wall №	Title	Name	Country
66	**Tetracycline removal by activated carbons produced from tyre char**	Fierro, Vanessa	France
67	**Simultaneous removal of shoot and nox in diesel exhausts with CuO/Ceria NSR catalysts**	Lozano Castello, Dolores	Spain
68	**Diagnosing lung cancer by toluene detection in exhaled breath**	Fierro, Vanessa	France
69	**Functionalized graphene quantum dots on Fluorescent Probes**	Wang, xiaomin	China
70	**Adsorption of pharmaceutical compounds on carbons of different morphologies**	Carvalho, Ana Paula	Portugal
71	**Iron-Filled Multi-walled Carbon Nanotubes Surface-Functionalized with Paramagnetic Gd (III): Toward a Dual-Functioning MRI Contrast Agent and Magnetic Hyperthermia Structure**	Baxendale, Mark	United Kingdom
72	**Wavelength-Tunable Wrinkled Graphene Surface Films for Cell Alignment and Shape Modification**	Wang, Zhongying	United States
73	**Breakthrough curves of CO_2 adsorption on functionalized activated carbon fiber fabrics**	Chiang, Yu-Chun	Taiwan
74	**Graphene oxide as effective selective barriers on a hollow fiber membrane for water treatment process**	Chen, Yuan	Singapore
75	**Model experiments on uric acid elimination by carbon monoliths functionalized with uricase**	Jandosov, Jakpar	Kazakhstan
76	**Hydrophilic modification of PAN-based carbon fibers by carbamide**	Liu, Jie	China
77	**Spherical Mesoporous Carbon Decorated with MgO for Catalytic Oxidation of H_2S at Low Temperature**	Wang, Mei	China
78	**Preparation of Pd/Pt/Au/Ru-Promoted Three-Dimensional Graphene Aerogels for Low-temperature Carbon Monoxide Removal**	Wang, Mei	China
79	**Systematic study of the interaction between oxidized single walled carbon nanotubes and water-insoluble anticancer drug**	Permana, Benny	Japan
80	**Honeycomb Carbon Monoliths from Renewable Materials: Investigation of Cell Cytotoxicity and Haemocompatibility**	Jandosov, Jakpar	Kazakhstan
81	**Enhanced Growth of Neural Networks on Cellulose-Derived Carbon Nanofibrous Scaffolds**	Kuzmenko, Volodymyr	Sweden
82	**Development of magnetically recoverable carbon nanocomposites for the catalytic wet peroxide oxidation of 4-nitrophenol solutions**	Ribeiro, Rui	Portugal
83	**Preparation of Food Protein Hydrolysates with Enhanced ACE-Inhibition by Selective Adsorption Using Porous Carbons**	Hippauf, Felix	Germany
84	**Characterization of Polymer Carbon Sieves, Graphitized Polymer Carbons and Graphitized Carbon Blacks for Use in Bench-Scale Processes**	Betz, William	United States

Wall №	Title	Name	Country
86	**Sludge immobilization and wastewater treatment efficacy of carbon fiber biofilm-carriers under low COD condition**	Liu, Jie	CHINA
87	**Effect on nanopore confinement on the photoactivity of carbon materials**	ANIA, Conchi O.	SPAIN
88	**The Effect of Activated Carbon Fiber on Wound Healing**	Lin, Jui-Hsiang	TAIWAN
89	**Biomass-derived Carbon Quantum Dots for Bioimaging Applications**	Papaioannou, Nikolaos	UNITED KINGDOM
90	**Photochemical reactivity and cooperative effects between TiO_2 and Fe-containing activated carbons**	Matos, Juan	CHILE

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W II

Tuesday, 14th July 2015

ACTIVATED CARBON

Wall №	Title	Name	Country
01	**Modeling of carbon molecular sieve using non-equilibrium CVD simulation**	Yamane, Yasuyuki	JAPAN
02	**Influence of pore structures on ethanol adsorption characteristics of activated carbons for adsorption heat pumps**	Nakabayashi, Koji	JAPAN
03	**Elucidation of temperature rising of carbon material during MAS-NMR measurement**	Nakabayashi, Koji	JAPAN
04	**Re-using activated carbon filters partly saturated by mixtures of organic vapors**	Lodewyckx, Peter	BELGIUM
05	**Role of the surface chemistry of the adsorbent on the initialization step of the water sorption process**	Fernandez Velasco, Leticia	BELGIUM
06	**Impact of impregnation ratio on copper adsorption by carbon adsorbents from sodium lignosulfonate obtained by phosphoric acid activation**	Podkościelna, Beata	POLAND
07	**Microwave-assisted phosphoric acid activation of corncob for preparation of functionalized activated carbon**	Gawdzik, Barbara	POLAND
08	**Graphene-like legos for building structural models of carbon materials obtained from cellulose**	Woznica, Natalia	POLAND
09	**PAN-based activated carbon fibers prepared by steam activation via continuous online production process**	Liu, Jie	CHINA
10	**Nanocrystalline Cellulose Assisted Carbon Aerogels with High efficiency for Cr (VI) and CO_2 Adsorption**	Wang, Mei	CHINA
11	**Preparation of mesoporous carbon spheres and their adsorption of bio-molecules**	Wang, Mei	CHINA
12	**Scalable Preparation of Nitrogen-enriched Carbon Microspheres for Efficient CO2 Capture**	Wang, Mei	CHINA
13	**Adsorption properties of activated carbons fibers obtained from Kevlar®**	Dziura, Aleksandra	POLAND
14	**Examination of the physical and chemical adsorption of phenol on the surface of the carbon sorbent during regeneration by desorption**	Soldatov, Aleksandr	RUSSIA
15	**Template assisted synthesis of porous carbon: insight in the process of the carbon deposition in the template**	Erlitz, Marcel	GERMANY
16	**Carbon monoliths with hierarchical pore system obtained by template assisted synthesis**	Taubert, Michael	GERMANY
17	**Carbon-based poly-functional adsorbents**	Bortun, Anatoly	UNITED STATES

CF AND COMPOSITES

Wall №	Title	Name	Country
18	**Investigation of silicide corrosion of Carbon/carbon composites and its mechanical properties**	Tan, Zhou-jian	China
19	**Laser-Induced High Textured Pyrocarbon Formation and Graphitization of Carbon/Carbon Composites**	Xia, Lihong	China
20	**Preparation and characterization of carbon/carbon composites for selective laser sintering**	Yi, Xu	China
21	**Effect of gas Pressure on the Microstructure of Carbon/Carbon Composites Obtained by Isothermal, Isobaric Chemistry Vapor Infiltration**	Huang, Qun	China
22	**Mesophase pitch from petroleum residue for carbon fiber**	Choi, Jisu	South Korea
23	**Reduction of Quinoline insoluble fraction in Isotropic Pitch via Hydroxyl radical induced Vulcanization of Heavy aromatics**	Park, Sang Wook	South Korea
24	**Preparation of Isotropic Pitches with High Spinnability Properties from Low Rank Coals**	Jung, Doohwan	South Korea
25	**Carbonization yield improvement in cellulose-based carbon fibers by electron-beam stabilization**	Kim, Min Il	South Korea
26	**The impact of hydro-fluorinated MWCNT additives on the enhanced mechanical and thermal properties of epoxy composite**	Lee, Young-Seak	South Korea
27	**Physical and electrical properties of epoxy composites reinforced with fluorinated multi-walled carbon nanotubes**	Lee, Young-Seak	South Korea
28	**Study on the thermal stabilization of PAN-based copolymer fiber bundles via in-situ mass spectroscopy**	Joh, Han-Ik	South Korea
29	**The entry into the carbon fibre production**	De Palmenaer, Andreas	Germany
30	**Reduction of stabilization cost for PAN-based carbon fibre manufacturing**	De Palmenaer, Andreas	Germany
31	**Diamond like carbon films prepared by magnetron sputtering technique**	Mansurov, Zulkhair	Kazakhstan
32	**Modification of polyimide materials by carbon nanostructures**	Mansurov, Zulkhair	Kazakhstan

ENERGY STORAGE

Wall №	Title	Name	Country
33	**From sphere to sheet: preparation and application of biomass derived sheet-like porous carbon**	Yang, Quanhong	China
34	**Petrochemical waste-derived high-performance anode material for Li-ion batteries**	Im, Ji Sun	South Korea
35	**Carbon Xerogels as Anodes for Lithium-Ion Batteries: model materials for the study of irreversible capacity losses in carbon materials**	Piedboeuf, Marie-Laure	Belgium
36	**An Integrated Biorefinery: Lignin Valorisation into High Value Carbon Materials**	Herou, Servann	United Kingdom
37	**Supercapacitors based on activated carbons from agricultural mill waste: adapting porosity to selected electrolytes**	Redondo, Edurne	Spain
38	**Synthesis of Au Nanoparticles and Au@hollow carbon spheres for application in organic solar cells.**	Mutuma, Bridget	South Africa
39	**On the impact of the carbon electrode on the performance of the sodium-oxygen battery**	Adelhelm, Philipp	Germany
40	**From pollutant to green energy: H_2S-motivated fabrication and applications of graphene/sulfur hybrid**	Yang, Quanhong	China
41	**Pitfalls in the characterization of sulfur/carbon nanocomposite materials for lithium–sulfur batteries**	Adelhelm, Philipp	Germany
42	**Investigation of oxygen reduction on carbon nanotube electrodes**	Lin, Wen-Yi	Taiwan
43	**Nanotexturing TiO_2 over MWCNTs for high performing supercapacitors in organic electrolytes**	Raymundo-Piñero, Encarnacion	France
44	**Influence of surface chemistry and reactivity of carbon nano-onions (CNOs) on the electrochemical behavior in supercapacitors**	Moussa, Georges	France
45	**Aligned carbon nanotube/sulfur composite cathodes with high sulfur content for lithium-sulfur batteries**	Zhang, Qiang	China
46	**Nanoarchitectured Graphene/CNT@Porous Carbon with Extraordinary Electrical Conductivity and Interconnected Micro/Mesopores**	Zhang, Qiang	China
47	**Strongly Coupled Interfaces between Heterogeneous Carbon Host and Sulfur-Containing Guest for Highly-Stable Lithium-Sulfur Batteries**	Zhang, Qiang	China
48	**High-Power Li-Ion battery based on vertically aligned carbon nanotubes**	Pawlitzek, Fabian	Germany
49	**Investigation of electrochemical performance for Li-ion batteries depending on coating pitch compositions**	Nakabayashi, Koji	Japan
50	**Ultraporous Nitrogen-doped zeolite-templated carbon for high energy density aqueous-based supercapacitors**	Carzorla-Amorós, Diego	Spain
51	**Porous carbon nanotubes thermally transformed from polyaniline nanotubes with high electrochemical performance**	Song, Huaihe	China

NANOFORMS

Wall №	Title	Name	Country
52	**Generation of nitrogen functionalities in activated carbons by amidation reaction and Hofmann rearrangement. Electrochemical performance**	González-Gaitán, Carolina	SPAIN
53	**Arrays, Powders and Stable Suspensions of Decorated Carbon Nanotubes and Nitrogen/Oxygen Edge-Functionalized Graphene**	Hordy, Nathan	CANADA
54	**Simultaneous synthesis of carbon nanotubes and nanocrystalline diamond hybrids for application in micro-electromechanical systems**	Franco dos Santos, Nuno Miguel	PORTUGAL
55	**Diamond clusters nucleation control in the simultaneous MPCVD synthesis of graphene/diamond hybrids**	Carvalho, Alexandre	PORTUGAL
56	**Graphene oxide dispersion with different degrees of oxidation in organic solvents**	Velasco, Miguel	MEXICO
57	**Delamination of Graphite in a high pressure homogenizer**	Nacken, Thomas	GERMANY
58	**Polypropylene (PP)/MWCNT composite and its Electrical and Mechanical Property**	Oh, Dong Hoon	SOUTH KOREA
59	**CVD of graphene on Cu-Ni alloy substrates**	Al-Hilfi, Samir	UNITED KINGDOM
60	**Large-scale Synthesis of Multi-walled Carbon Nanotubes Using Floating Copper Catalysts**	Hsiao, Chung-Hsuan	TAIWAN
61	**Surface treatment of diamond nanoparticles in pulsed streamer corona discharge in water**	Jirásek, Vít	CZECH REPUBLIC
62	**Large-diameter SWCNTs Formed Alongside Small-Diameter DWCNTs**	Laurent, Christophe	FRANCE
63	**Single-walled carbon nanotube as an electron acceptor studied by the observation of photoluminescence**	Shioyama, Hiroshi	JAPAN
64	**Low temperature growth of carbon nanostructures by thermal CVD on the particles of copper nanopowders**	Mansurov, Zulkhair	KAZAKHSTAN
65	**Low temperature growth of carbon nanostructures by thermal CVD on the particles of iron nanopowders**	Mansurov, Zulkhair	KAZAKHSTAN
66	**Swift heavy ion irradiation-induced modification of carbon nanotubes and graphene**	Olejniczak, Andrzej	POLAND
67	**Fabrication of Xylem-Like Monolith containing Graphene with Super-High Elasticity**	Pan, Zhengze	CHINA
68	**Synthesis of metal-coated multi-wall carbon nanotubes by fluidized-bed MO-CVD for aeronautic applications**	Monthioux, Marc	FRANCE
69	**Direct animation of MWCNT graphene surface catalyzed by copper (I) iodide**	Perez-Mendoza, Manuel	SPAIN
70	**Transparent conductive carbon films with tunable pore size**	Tessier, Pierre-Yves	FRANCE
71	**Changes in the morphology of graphene materials caused by solvents**	González, Zoraida	SPAIN

Wall №	Title	Name	Country
72	**Simulation study on the effect of energy distribution of work function on the field electron emission characteristics of CNT field emitter**	Park, Sora	SOUTH KOREA
73	**Industrial Scale Few Layers Graphene from Food Waste and their Applications**	Huang, Kai	FRANCE
74	**Tuning graphene properties by a multi-step thermal reduction process**	González, Zoraida	SPAIN
75	**AFM monitorization of thermally reduced graphene oxides**	González, Zoraida	SPAIN
76	**Crumpled Graphene Nanoreactors**	Wang, Zhongying	UNITED STATES
77	**Effect of deposition angle on large-area chemical vapor deposition of carbon nanofibers**	Huang, Qi Zhong	CHINA

PHYSICAL AND CHEMICAL PROPERTIES

Wall №	Title	Name	Country
78	**The Influence of Phosphorous Additives on the Kinetics of Graphite Foils Oxidation**	Malakho, Artem	Russia
79	**The Effect of Solvent Nature on the Morphology and Properties of Graphite Nanosheets**	Shornikova, Olga	Russia
80	**The role of topological defects on the structure and properties of glass-like carbon**	Jurkiewicz, Karolina	Poland
81	**A modular concept for the preparation of carbon based catalysts**	Utgenannt, Stephan	Germany
82	**Electrochemistry of few-layer graphene-diamond core-shell nanoparticles**	Ko, Young-Jin	South Korea
83	**Changes in the density of states and energy band gap of C-doped TiO_2. Implications in the photocatalytic activity and solar cells devices of TiO_2-based materials.**	Matos, Juan	Chile
84	**Intercalation of magnesium and calcium into boron/carbon/nitrogen materials based on the graphite network by using vapor phase reaction**	Ishikawa, Hiromichi	Japan
85	**Photochemical reactivity of S-doped nanoporous carbon/TiO_2 composites in the degradation of phenol under solar irradiation**	Matos, Juan	Chile
86	**Structural and chemical characterisation of porous carbons prepared by impregnation method with organic acids, their salts and steam activation**	Sobiesiak, Magdalena	Poland
87	**Dry methane reforming on Ce- and La-based catalysts supported on mesoporous carbon**	Matos, Juan	Chile
88	**Influence of deposition pressure on the texture of pyrolytic graphite during chemical vapor deposition**	Hu, Xianglong	China
89	**Photochemical reactivity of AC/TiO_2 composites under solar irradiation: the role of the carbon functionalization**	Matos, Juan	Chile
90	**An Electron Microscopic & Spectroscopic Investigation of Graphitic Quality in a Nano-scale Carbon**	Vander Wal, Randy	United States

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W III

Wednesday, 15th July 2015

BIOMASS DERIVED CARBON

Wall №	Title	Name	Country
01	**Fabrication of sustainable anode materials from bamboo sticks for lithium-ion batteries**	Fromm, Olga	GERMANY
02	**Bio-oil and bio-char production from filter coffee waste via slow pyrolysis**	Kilic, Murat	TURKEY
03	**Thermal decomposition behaviors and kinetics of bio-pitches obtained from different biomass pyrolytic oils**	Kilic, Murat	TURKEY
04	**Synthesis of highly porous carbon rods via bio-templating approach**	Adam, Marion	GERMANY
05	**Biomass conversion into carbon biosorbents**	Carvalho, Ana Paula	PORTUGAL
06	**Removal of microcystin-LR by cork-based and commercial activated carbons**	Mestre, Ana Sofia	PORTUGAL
07	**New carbon materials from natural polyphenols: morphologies and potential applications**	Celzard, Alain	FRANCE
08	**Biomass-derived activated carbons: promising green materials for environmental remediation**	Mestre, Ana Sofia	PORTUGAL
09	**Hydrothermal Carbon-Graphene Nanocomposites**	Qiao, Mo	UNITED KINGDOM
10	**Graphene oxide assisted hydrothermal carbonization of carbon hydrates**	Krishnan, Deepti	UNITED STATES
11	**Pt-free Electro-catalysts for the Oxygen Reduction Reaction in Fuel Cells**	Preuss, Kathrin	UNITED KINGDOM

CARBON BLACK

Wall №	Title	Name	Country
12	**The Investigation of Color Properties for Surface-Modified Carbon Black Materials**	Park, Soo Youl	SOUTH KOREA
13	**Lignin as a Source of Carbon**	Fraczek-Szczypta, Aneta	POLAND
14	**Quantitative analysis of rubber polymers chemically bonded to the edge sites of carbon black**	Hoshikawa, Yasuto	JAPAN

CF AND COMPOSITES

Wall №	Title	Name	Country
15	**Changes in crystalline structure and pore features after gas oxidation of CFRP**	Kang, Dong Su	South Korea
16	**Multi walled carbon nanotubes introduces on calcium aluminate castable using different routes**	Oliveira Junior, Norval	Brazil
17	**Chemical vapor deposition of carbon/carbon composites by pyrolysis of ethanol and methane**	Li, Kezhi	China
18	**Preparation of sub-micron carbon fibre webs**	Heikkilä, Pirjo	Finland
19	**Effect of graphitization degree and porosity of fuel cell gas diffusion layers on their heat management: Modeling and experiments**	Huang, Qi Zhong	China
20	**Study on the Preparation of Carbon Fibers with Upgraded mechanical properties from Naphtha Cracked Oil Hybridized with Coal Tar**	Nakabayashi, Koji	Japan
21	**Polymer and composite films as noble metal-free electrode precursors**	Rodenas, Tania	Germany
22	**Self-propagating high temperature synthesis of composition materials on the basis of TiB2-TiC-MgO**	Abdulkarimova, Roza	Kazakhstan
23	**The stress distribution in CNT/Epoxy composites with V-shaped notch**	Wu, Qilin	China
24	**Low temperature infusibilization of pitch precursor for synthesis of carbon fiber**	Cho, Kwang Youn	South Korea
25	**Investigation of tension controlling during low-temperature carbonization on the structual and mechanical properties of PAN-based carbon fibers**	Liu, Jie	China
26	**The Effect of γ-ray Irradiation on the Microstructure and Property of Polyacrylonitrile Fiber and the Resultant Carbon Fiber**	Lu, Yonggen	China
27	**The Influence of Refractory Carbide on the Microstructure of Resin-based Carbon**	Zhang, Zhongwei	China
28	**Investigation of the pre-stretching process before oxidative stabilization on structural and mechanical properties of the dry-jet wet spinning PAN precursor fibers and the resulting carbon fibers**	Liu, Jie	China
29	**Mechanical properties of the electrospun PAN based fibers processed by drawing and annealing**	Youm, Jaesung	South Korea
30	**Investigation of oxidative stabilization process on density and mechanical properties of resulting PAN-based carbon fibers under "time effect"**	Liu, Jie	China
31	**Carbon fiber from dry-spinning of acetylated alkali lignin**	Liu, Jie	China
32	**Supercapacitive Properties of Ni-Co Mixed Oxide Nanosheet on Carbon Nanofibers**	Kim, Ji Hoon	South Korea
33	**Dynamic Hydrophobicity of Silicone/Carbon Composite Sheet with Surface Topography**	Yanagisawa, Kenji	Japan

Wall №	Title	Name	Country
34	**Studies on electrodeposition of platinum nanoparticles as a function of different activated multiwalled carbon nanofibers**	Muntean, Roxana	Germany
35	**N-doped C-TiO_2 nanostructured hybrid materials for the methylene blue photocatalytic degradation under solar light irradiation**	Matos, Juan	Chile
36	**Photodegradation of phenol red on a Carbon/Ni-doped Niobate composite**	Matos, Juan	Chile

ENERGY STORAGE

Wall №	Title	Name	Country
37	**Functionalization of carbon nanotubes using aminobenzene acids and electrochemical methods. Electrocatalytic activity for the ORR.**	Ruiz Rosas, Ramiro	Spain
38	**Graphene Oxide Membrane Fuel Cells**	Lyth, Stephen	Japan
39	**Carbon nanofiber-loading heteroatom-doped tin oxides as anode materials for lithium storage**	Yu, Yunhua	China
40	**Effect of Graphene Oxide on Structure and Properties of Mesophase Pitch-derived Carbon Foam**	Kong, Qing	China
41	**Preparation of Millimeter-Size Graphene by Chemical Vapor Deposition Method with Bitumite as Solid Carbon Source**	Zhang, Yating	China
42	**Characterization of hierarchical porous Carbide-Derived Carbons by combined HRTEM imaging, nitrogen/carbon dioxide physisorption and Raman spectroscopy**	Pré, Pascaline	France
43	**Scalable synthesis of microporous carbon microspheres with ultra-high nitrogen-doping content for supercapacitor**	Wang, Mei	China
44	**Nitrogen-doped Porous Carbons from Coal Liquefaction Residual for Supercapacitors**	Zhou, Ying	China
45	**Carbon coating of $LiMn_{1-x}Fe_xPO_4$ using amphiphilic carbonaceous material for improvement of electrochemical performance**	Wang, Chengyang	China
46	**Multilayered Graphene-Biopolymer Supercapacitor**	Navarro-Suárez, Adriana	Spain
47	**Synthesis of graphene/carbon nanoparticle composites and their performance of electrochemical energy storage**	Liao, Chien-Shiun	Taiwan
48	**Carbide-derived carbon materials with hierarchical pore structure as cathode component in lithium-sulfur batteries**	Oschatz, Martin	Germany
49	**The Kroll-Concept for Advanced Synthesis of Mesoporous Carbons: Reductive Carbochlorination of Carbon/Metal Oxide Composites**	Oschatz, Martin	Germany

Wall №	Title	Name	Country
50	**Role of the Solid Electrolyte Interface (SEI) on Graphite Anode for High-Performance Lithium Ion Battery in Ionic Liquid**	Kishida, Kazuhisa	Japan
51	**Preparation of PtSn Catalyst Supported on Carbon Nanotubes by Micro-wave-heated Polyol Process**	Chen, Shuixie	China
52	**N-functionalized Carbon-based electrode materials by urotropine addition**	Straten, Jan-Willem	Germany
53	**Efficient synthesis of hierarchical porous carbons for application in Li-S cells**	Strubel, Patrick	Germany
54	**The role of nitrogen groups in carbon frameworks for CO_2 capture and storage: Insights from molecular simulations**	Kannuchamy, Vasanth Kumar	United Kingdom
55	**Ionic liquid-derived activated carbon**	Roh, Kwang Chul	South Korea
56	**Unusual Ultra-Hydrophilic Porous Carbons for Atmospheric Water Capture and Energy-Related Applications**	Hao, Guang-Ping	Germany

INDUSTRIAL

Wall №	Title	Name	Country
57	**A study on the degassing behaviour of graphite felts for the insulation of vacuum furnaces**	Kern, Alexander	German
58	**High Quality Graphite Thin Film by Pyrolysis of Polymer Film**	Murakami, Mutsuaki	Japan
59	**Modification of coal tar pitch-based carbon binders with nano- and micro-sized components for carbon & graphite technology**	Gubernat, Maciej	Poland
60	**Alternative binder precursors for carbon and graphite manufacture**	Lis, Tomasz	Poland
61	**Changes in microstructure due to carbonization of phenol resin**	Kang, Dong Su	South Korea
62	**Permeation effect to micro pore depending on the viscosity of impregnant during bulk graphite manufacturing**	Lee, Sang Min	South Korea
63	**Anode Coke from Coal – A Low Cost Approach**	Weisenberger, Matthew	United States
64	**Double-layer CVD graphene as stretchable transparent electrodes**	Kyung-Shik, Kim	South Korea
65	**Structure and properties of mesophase pitch-derived carbon foams reinforced by mesocarbon microbeads**	Tzeng, Shinn-Shyong	Taiwan

NANOFORMS

Wall №	Title	Name	Country
66	**Advanced Template Removal Approach Towards Ordered Mesoporous Carbons**	Nickel, Winfried	GERMANY
67	**Two different and efficient approaches to brominate Multi-Wall Carbon Nanotubes: microwave cold plasma and interhalogen compounds treatments**	Abdelkader-Fernandez, Victor Karim	SPAIN
68	**Preparation of Graphene Nanoplatelets from Polyimide-derived Graphite Film by GIC (Graphite Intercalation Compound) via Process**	Park, Sei-Min	SOUTH KOREA
69	**Activation Energy Variation in the Chemical Vapor Deposition of Carbon Nanotubes under Temperature Gradient**	Yang, Ning	SWITZERLAND
70	**Janus graphene nanosheets from water-oil interface**	Song, Huaihe	CHINA
71	**Preparation and application of a collimated high-brightness electron beam using a miniature carbon nanotube paste emitter**	Choi, Young Chul	SOUTH KOREA
72	**Floating Transfer of Residual-Free Graphene using Water Surface**	Seo, Jeongmin	SOUTH KOREA
73	**Non-doped conducting porous nanodiamond film applied for the electrochemical detection of dopamine in the presence of uric acid and ascorbic acid**	Cho, Jung-Min	SOUTH KOREA
74	**Mesophase Pitch-Assisted Dispersion of Single-Walled Carbon Nanotubes**	Shin, Eun Ae	SOUTH KOREA
75	**High flexibility, orientation and thermal conductivity of free-standing graphene films reduced via hot-pressing assisted thermal annealing**	Jin, Minling	CHINA
76	**Kinetic Trapping of Unstable Emulsions using Self-Assembled Graphene Molecular Barriers**	Creighton, Megan	UNITED STATES
77	**Towards mass production of high quality multi-walled carbon nanotubes: An industrial safe-by-design and sustainable approach**	Koumoulos, Elias	GREECE
78	**Synthesis of CNT supported metal nanoparticles and covered with a few graphene layers as M@CNT hybrid materials**	Gallego, Jaime	COLOMBIA
79	**Stable Aqueous Dispersions of Functionalized Graphene by Pulsed Underwater Plasma Exfoliation of Graphite**	Meyer-Plath, Asmus	GERMANY
80	**Assessment of Workplace Exposure to Carbon Nanotubes with Personal and Stationary Instruments**	Meyer-Plath, Asmus	GERMANY
81	**A strategic approach to REACH-related testing and information requirements for nanomaterials and other particulate matter**	Meyer-Plath, Asmus	GERMANY
82	**Preparation and photoluminescence properties of heteroatom doped carbon dots**	Yang, Yongzhen	CHINA
83	**Facile hydrothermal synthesis of spherical $CdLa_2S_4$ nanoparticles modified graphene composite and detection of oxygen species in decolorization of Texbrite dyes**	Oh, Won-Chun	SOUTH KOREA

Wall №	Title	Name	Country
84	**Production of large area graphene/CNTs on Cu foil using low temperature CVD techniques: A novel approach towards future graphene/CNTs based technologies**	Oh, Won-Chun	SOUTH KOREA
85	**Synthesis of large-scale graphene in the flame with an electric field at low pressure**	Prikhodko, Nikolay	KAZAKHSTAN
86	**Nanophase transformations of carbon particles**	Glagolev, Vladimir	KAZAKHSTAN
87	**Oxygen diffusion and aromatization-structure formation in electrospun PAN copolymer nanofibers during oxidative stabilization process**	Liu, Jie	CHINA
88	**Unstacking double-layer templated graphene**	Zhang, Qiang	CHINA

CONVERSION PROCESSES

Wall №	Title	Name	Country
89	**Co-pyrolysis of oil shale-PET mixtures using TGA/FT-IR: kinetics and evolved gas analysis**	Kilic, Murat	TURKEY
90	**Catalytic pyrolysis of oil sludge over ZSM-5 catalyst for hydrocarbon production**	Kilic, Murat	TURKEY
91	**Production of Bio-char from stone coal and its properties**	Yargic, Adife Seyda	TURKEY

Thursday, 16th July 2015

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(max. 90 posters)

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