

INVITATION / COMMITTEES

INVITATION TO THE 2ND INDO-GERMAN CONFERENCE

Catalysis is the key-interdisciplinary technology in the chemical industry, particularly for the development of energy supply and for the application of new renewable raw materials and for more environmental benign chemical processes. Facing the importance of catalysis for renewable energy and raw material supply the conference is focussed to this topic.

Experts from India and Germany will present papers about photocatalysts and its application, fuel cells and hydrogen processing. Reports about renewable raw materials (including different kinds of bio mass like cellulose, lignin, fatty oils and others) are an essential part of the conference. Further papers are directed on the enhancement of efficiency and selectivity in chemical processes (e.g. production of polymers and petrochemicals) to save energy and raw material. In this connection also the development of new effective catalysts will be demonstrated.

Papers will be presented by both scientists from industry and from academia. Thus, the conference will open the way for fruitful discussions between experts working in different fields, held together by catalysis research.

The first Indo-German conference has started the mutual discussion between scientists of both countries; the target of the second conference is to strengthen this discussion to derive new concepts for joint co-operations for a better future.

ORGANIZING COMMITTEE

F. Ausfelder, DECHEMA e.V., Frankfurt am Main/D
B. Heller, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
N. Kalevaru, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
B. Lücke, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D

ADVISORY BOARD

M. Beller, Leibniz Institute for Catalysis (LIKAT), Rostock/D
A. Datta, Indian Institute of Petroleum (IIP), Dehradun/IND
M.K. Dongare, National Chemical Laboratory (NCL), Pune/IND
R.V. Jasra, Reliance Technology Group, Varodara/IND
E. Kemnitz, Humboldt Universität zu Berlin/D
B. Lücke, Leibniz Institute for Catalysis (LIKAT), Rostock/D
P.S. Prasad, Indian Institute of Chemical Technology, Hyderabad/IND
J. Weitkamp, University of Stuttgart/D
D. Wolf, Evonik Degussa GmbH, Hanau/D
G.D. Yadav, Institute of Chemical Technology, Mumbai/IND

PROGRAMME

SUNDAY, JUNE 19

17:00 Registration
 18:00 Get-together

MONDAY, JUNE 20

09:30 Opening remarks
 10:00 **PLENARY LECTURE**
Catalysts and materials for production and storage of hydrogen as a sustainable energy carrier
 R.V. Jasra, Reliance Industries Limited, Vadodara/IND
 11:00 Coffee break
 11:30 **KEYNOTE LECTURE**
Visible light driven photocatalytic decomposition of water for hydrogen production over mixed metal oxide/composite material
 K. Parida, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar/IND
 12:00 **Light driven water splitting: catalysts for photochemical hydrogen generation and chemical oxygen evolution**
 S. Losse, F. Gärtner, N. Marquet, H. Junge, M. Beller, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
 12:20 **2-(3-Pyrazolyl)pyridines as ligands in the ruthenium catalysed hydrogenation of carbon dioxide**
 K. Muller, Y. Sun, W.R. Thiel, TU Kaiserslautern/D
 12:40 Lunch
 13:40 **PLENARY LECTURE**
Catalytic depolymerization and hydrodeoxygenation of lignin
 C. Zhao, V.M. Roberts, B. Peng, J. He, J.A. Lercher, TU München, Garching/D
 14:40 **KEYNOTE LECTURE**
Dehydration of glycerol over mesoporous silica supported heteropoly acid catalysts: effect of catalyst loading
 S. Mahendran, B. Viswanathan, P. Selvam, Indian Institute of Technology-Madras, Chennai/IND
 15:10 **Synthetic glycolysis**
E. Taarning, M. Holm, Haldor Topsoe A/S, Kgs. Lyngby/DK
 15:30 **Efficient transformation of biomass-derived sugar into platform chemicals using homo- and bimetallic catalysts**
K. Yan, F. Qin, L. Orzechowski, N. Theyssen, Max-Planck-Institut für Kohlenforschung, Mülheim/D; W. Leitner, RWTH Aachen/D
 15:50 Coffee break

PROGRAMME

16:20 **KEYNOTE LECTURE**
Exfoliated Vanadium Phosphorus Oxide(VPO) phases dispersed on different supports as novel catalysts for the liquid phase selective oxidation of hydrocarbons
A. Datta, P. Borah, C. Pendem, Indian Institute of Petroleum, Dehradun/IND
 16:50 **Expedient catalyst supports for sophisticated catalyst design**
 F. Alber, P. Bussian, Sasol Germany GmbH, Hamburg/D;
S. Fibikar, Sasol Germany GmbH, Brunsbüttel/D; A. Malyschew, O. Torno, Sasol Germany GmbH, Hamburg/D
 17:10 **KEYNOTE LECTURE**
Catalytic CH bond activation at nanoscale lewis acidic aluminium fluorides: H/D exchange reactions at aromatic and aliphatic hydrocarbons
E. Kemnitz, T. Braun, M.H.G. Prechtel, M. Teltewskoi, Humboldt-Universität zu Berlin/D
 17:40 **KEYNOTE LECTURE**
Glycerol valorization for sustainable chemical production
A. Martin, H. Atia, M. Richter, U. Armbruster, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
 18:10 Poster session

TUESDAY, JUNE 21

08:30 **PLENARY LECTURE**
Lignucellulose – feedstock for the production of chemicals and fuels
 F. Schüth, Max-Planck-Institut für Kohlenforschung, Mülheim/D
 09:30 **KEYNOTE LECTURE**
Next generation (bio)fuels and central role of catalysis: opportunities and issues
 R. Kumar, Tata Chemicals Ltd., Pune/IND
 10:00 **KEYNOTE LECTURE**
Glycerol valorization using in situ generated silicomolybdic acid on mesoporous silica support
 S.B. Umbarkar, T.V. Kotbagi, M.K. Dongare, National Chemical Laboratory, Pune/IND
 10:30 Coffee break
 11:00 **KEYNOTE LECTURE**
Catalytic hydrogenolysis of glycerol into propylene glycol
 M. Balaraju, N. Lingaiah, P.S. Sai Prasad, Indian Institute of Chemical Technology, Hyderabad/IND

PROGRAMME

- 11:30 **PLENARY LECTURE**
Value creation from renewable feedstock – challenges for catalysis
 D. Wolf, Evonik Degussa GmbH, Hanau/D
- 12:30 **KEYNOTE LECTURE**
Feed stock and energy savings through high productivity catalyst design and development – a prospective
 D. Rajeshwer, Reliance Industries Ltd, Jamnagar/IND
- 13:00 Lunch
- 14:00 **KEYNOTE LECTURE**
Catalytic conversion of levulinic acid into γ -valerolactone
 M. Lakshmi Kantam, Indian Institute of Chemical Technology, Hyderabad/IND
- 14:30 **Design of novel nanosized ceria-based solid solutions for CO oxidation and other applications**
P. Sudarsanam, K. Lakshmi, G. Thrimurthulu, B.M. Reddy, Indian Institute of Chemical Technology, Hyderabad/IND; S. Heikens, W. Grünert, University of Bochum/D
- 14:50 **New developments in visible light photoredox catalysis**
R.M. Koenigs, M. Rueping, RWTH Aachen/D
- 15:10 **Valorisation of lactic acid**
S.B. Umbarkar, S.T. Lomate, M.K. Dongare, National Chemical Laboratory, Pune/IND
- 15:30 Coffee break
- 16:00 **Application and efficiency of nanostructures titania based catalysts for abatement of hazardous compound in low contaminated drinking water**
I. Choina, G.-U. Flechsig, J. Harloff, H. Kosslick, A. Schulz, University of Rostock/D
- 16:20 **Ammoxidation of 2-methylpyrazine to 2-cyanopyrazine on nanogold promoted vanadia catalysts**
A. Alshammari, King Abdulaziz City for Science and Technology, Riyadh/SAR; A. Köckritz, V.N. Kalevaru, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D; A. Bagabas, King Abdulaziz City for Science and Technology, Riyadh/SAR; N. Dhachapally, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- 16:40 **Propanediol synthesis via aqueous phase reforming of glycerol**
U. Armbruster, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D; S.B. Umbarkar, A.V. Biradar, M.K. Dongare, National Chemical Laboratory, Pune/IND; A. Datta, S. Darmora, Indian Institute of Petroleum, Dehradun/IND; H. Junge, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D

PROGRAMME

- 17:00 **CO₂ utilization in the direct synthesis of dimethyl carbonate from CO₂ and methanol**
H.J. Hofmann, A. Brandner, P. Claus, TU Darmstadt/D
- 17:20 **Alkali salts of heteropoly tungstates as green catalysts for the synthesis of biodiesel by transesterification of edible and non-edible oils**
 S. Rekha, M. Balaraju, P.S. Sai Prasad, N. Lingaiah, Indian Institute of Chemical Technology, Hyderabad/IND
- 19:00 Boat trip and conference dinner

WEDNESDAY, JUNE 22

- 08:30 **PLENARY LECTURE**
Selectivity engineering in development of green and benign catalytic processes
 G.D. Yadav, Institute of Chemical Technology, Mumbai/IND
- 09:30 **KEYNOTE LECTURE**
Upgrading of polynuclear aromatics by selective catalytic ring opening
 J. Weitkamp, University of Stuttgart/D
- 10:00 **The potential of medium-pore zeolites for improved propene yields from catalytic cracking**
S. Ernst, F. Bager, University of Kaiserslautern (TU)/D
- 10:20 Coffee break
- 10:50 **Temporal resolution of selectivity in Fischer-Tropsch synthesis indicating self-organization and spatial constraints**
 H. Schulz, Karlsruhe Institute of Technology - KIT, Karlsruhe/D
- 11:10 **KEYNOTE LECTURE**
Advances in polyolefin catalysts and processes: addressing the energy issues
 Shashikant, Indian Oil Corporation Limited (IOCL), Faridabad/IND
- 11:40 **KEYNOTE LECTURE**
Green processes for the synthesis of valuable chemicals based on carbon dioxide and carbon monoxide
 B.M. Bhanage, Institute of Chemical Technology, Mumbai/IND
- 12:10 **KEYNOTE LECTURE**
Development of bio-jet fuels as drop-in alternative aviation fuel
 M. Garg, Indian Institute of Petroleum (CSIR), Dehradun/IND
- 12:40 Lunch

Please turn over to page 2.

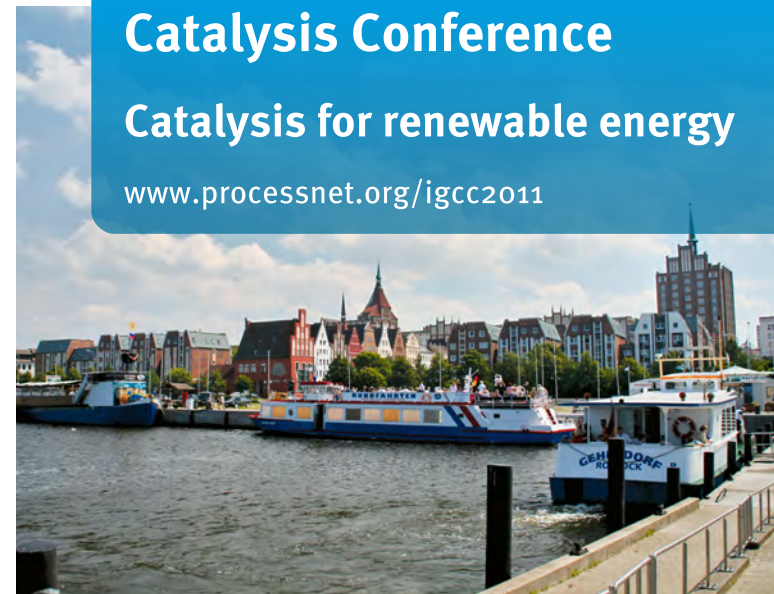
PROGRAMME

June 19-22, 2011
 Rostock / Germany

2nd Indo-German Catalysis Conference

Catalysis for renewable energy

www.processnet.org/igcc2011



PROGRAMME

WEDNESDAY, JUNE 22 (CONTINUED)

- 13:40 **Application of industrial waste based catalysts for total oxidation of propane**
S. Sushil, TERI University, New Delhi/IND; P. Scholz, University of Jena/D; K. Pollok, University of Bayreuth/D; B. Ondruschka, University of Jena/D; V.S. Batra, TERI University, New Delhi/IND
- 14:00 **Effect of Pt bimetallic catalysts and hollow sphere carbon support on oxygen reduction reaction**
M. Sakthivel, DECHEMA e.V., Frankfurt am Main/D; C. Galeano, Max-Planck-Institut für Kohlenforschung, Mülheim/D; J.-F. Drillet, DECHEMA e.V., Frankfurt am Main/D; F. Schüth, Max-Planck-Institut für Kohlenforschung, Mülheim/D
- 14:20 **One-step gas-phase acetone condensation over nano-ruthenium/activated charcoal/nano-zinc oxide: part II-effect of hydrogen flow rate on catalytic properties**
A. Bagabas, King Abdulaziz City for Science and Technology, Riyadh/SAR; V. Akhmedov, Baku State University, Baku/AZ; M. Mostafa, King Abdulaziz University, Jeddah/SAR; A. Alshammari, M. Ashanqiti, F. AL-Otaibi, King Abdulaziz City for Science and Technology, Riyadh/SAR
- 14:40 **Mesoporous nitrogen rich carbon material as catalyst for the oxygen reduction reaction**
A. Bordoloi, T.C Nagaiah, M.D Sánchez, M. Muhler, W. Schuhmann, University of Bochum/D
- 15:00 Coffee break
- 15:30 **Plasma-assisted synthesis of cobalt-polypyrrole-based electrocatalysts for oxygen reduction reaction**
C. Walter, V. Brüser, A. Quade, K.-D. Weltmann, Leibniz-Institut für Plasmaforschung und Technologie e.V. (INP), Greifswald/D
- 15:50 **Ceria based mesoporous mixed oxide supported gold nanoparticle for alcohol oxidation reaction using molecular O₂**
B. Chowdhury, S. Mandal, Indian School of Mines, Dhanbad/IND; K. Bando, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba/J
- 16:10 **In situ FTIR spectroscopic study on the carboxylation of propylene with CO₂ over POM catalysts**
M. Kühnle, Leibniz Institute for Catalysis e.V. (LIKAT), Rostock/D; K. Müller, L. Mokrushina, University of Erlangen-Nürnberg, Erlangen/D; J. Strautmann, D. Kruse, Evonik Degussa GmbH, Marl/D; W. Arlt, University of Erlangen-Nürnberg, Erlangen/D; A. Brückner, U. Bentrup, Leibniz Institute for Catalysis (LIKAT), Rostock/D
- 16:30 Closing remarks

POSTER-PROGRAMME

- P 01 Synthesis and characterization of Ni/mesostructured catalysts and their application on the direct conversion of ethene to propene**
L. Alvarado Perea, T. Wolf, Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg/D; T. Lehmann, C. Hamel, University of Magdeburg/D; A. Seidel-Morgenstern, Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg/D
- P 02 Hydrogen generation by ethanol reforming on coated microstructures**
H. Ehrlich, K. Jaehnisch, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 03 Chemical Fluid Deposition (CFD) for syntheses of supported catalysts based on Ni and Cu and their application in transformation of sugar-derived biomass into platform chemicals**
L. Orzechowski, K. Yan, N. Theysen, Max-Planck-Institut für Kohlenforschung, Mülheim/D; W. Leitner, RWTH Aachen/D
- P 04 Oxydative dehydrogenation of ethane to ethylene using decomposed molybdophosphoric acid supported on zirconia**
A. Sri Hari Kumar, G. Raveendra, Indian Institute of Chemical Technology, Hyderabad/IND; C. Sailu, Osmania University, Hyderabad/IND; A. Qiao, V.N. Kalevaru, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D; N. Lingaiah, P.S. Sai Prasad, Indian Institute of Chemical Technology, Hyderabad/IND
- P 05 Versatility of aminated silica nanoparticles: from biocompatible nanohybrids to heterogeneous catalysts for Heck-type reactions**
K. Natte, G. Orts-Gil, W. Österle, J. Friedrich, BAM-Federal Institute for Materials Research and Testing, Berlin/D
- P 06 Liquefaction of lignocellulosic biomass in subcritical and supercritical conditions**
P.T. Patil, U. Armbruster, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 07 Application of supported colloidal gold nanoparticles for the oxidation of benzyl alcohol to benzaldehyde**
A. Alshammari, King Abdulaziz City for Science and Technology, Riyadh/SAR; A. Köckritz, V.N. Kalevaru, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 08 Effect of Co on Cu-MgO catalysts for simultaneous synthesis of γ -butyrolactone and aniline through the coupling process**
K.H. Prasad Reddy, N.Anand, P.S. Sai Prasad, B.D. Raju, K.S. Rama Rao, Indian Institute of Chemical Technology, Hyderabad/IND

POSTER-PROGRAMME

- P 09 Porous glass supported VO_x catalysts - influence of pore sizes on the oxidation of methane**
E. Schönborn, S. Wohlrab, N. Kalevaru, A. Martin, B. Lücke, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 10 Computational chemistry for optimizing catalysts and materials**
A. Kulesza, M. Checinski, CreativeQuantum UG, Berlin/D
- P 11 Non-platinum catalysts for the ORR in PEM fuel cells**
A.-E. Surkus, J. Rajenahally, H. Junge, M. Beller, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 12 Effect of total pressure on the catalytic performance of a 10Pd16Sb/TiO₂ catalyst in the gas phase acetoxylation of toluene**
N. Madaan, S. Gatla, V.N. Kalevaru, J. Radnik, B. Lücke, A. Brückner, A. Martin, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 13 Iron-catalyzed hydrogen evolution from formic acid**
D. Mellmann, A. Boddien, F. Gärtner, A. Kammer, H. Junge, M. Beller, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 14 Smart nanomaterials for fuel cell reactions**
L.S. Sarma, K. Ulrich, T. Thomas, TU Clausthal/D
- P 15 Band gap engineering of tantalate photocatalysts**
T. Meyer, S. Wohlrab, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 16 Nanoporous glasses for the preparation of nanoscale catalyst materials**
M. Hoffmann, S. Kreft, S. Wohlrab, B. Lücke, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D
- P 17 Pd(o) nanoparticles catalyzed one-pot synthesis of N, O, S-heterocycles via tandem coupling-cyclization**
R. Vadde, S. Kankala, R. Edulla, Kakatiya University, Warangal/IND; C.S. Vasam, Satavahana University, Karimnagar/IND
- P 18 Influence of metals M on the performance of Pd,M/TiO₂ catalysts in the gas phase acetoxylation of toluene to benzyl acetate**
S. Gatla, N. Madaan, J. Radnik, V.N. Kalevaru, B. Lücke, A. Martin, U. Bentrup, A. Brückner, Leibniz Institute for Catalysis (LIKAT) e.V., Rostock/D

TO REGISTER PLEASE CHECK
WWW.PROCESSNET.ORG/IGCC2011

VENUE / ACCOMMODATION

THE CONFERENCE WILL TAKE PLACE AT

pentahotel Rostock
Schwaansche Str. 6
18055 Rostock
phone: +49-(0)381-49700
fax: +49-(0)381-4970700
email: info.rostock@pentahotels.com
www.pentahotels.com/de/rostock/

Accommodation has been reserved at a special rate:

84 Euro per single room, 99 Euro per double room incl. breakfast

To make your reservation please contact the hotel directly using the keyword "DECHEMA". Reservations should be made **by June 5, 2011** at the latest.



HOW TO GET THERE

By plane:

Rostock Laage Airport (35 km away) or
Hamburg International Airport (200 km away) or
Berlin Tegel Airport (220 km away)

By train:

Rostock main station (around 2 km), Taxi shuttle around 5 minutes,
approx. 6 €

By public transport in Rostock:

Tram stop "Lange Straße" near the hotel (200 m away)

GENERAL INFORMATION

CONGRESS OFFICE

Mr. Matthias Neumann
DECHEMA e.V.
Theodor-Heuss-Allee 25
60486 Frankfurt am Main/Germany
phone: +49-(0)69-7564-254
fax: +49-(0)69-7564-176
email: neumann@dechema.de

ROSTOCK

A town hall with seven towers, a famous astronomical clock or a museum on an offshore freighter: All this is part of Rostock, as is the seaside resort Warnemünde on the Baltic Sea. Today the significant Hanseatic town of the Middle Ages is Mecklenburg-Vorpommern's biggest city and economic centre, with ferry connections to Scandinavia and the Baltic states.

North German Brick Gothic decorates its historical centre in harmony with modern elements. Alongside attractions like Neuer Markt with the town hall and St. Marien Church are Kröpeliner Street with its gabled houses of all ages and the city harbour on the banks of the Warnow with old and modern sailing boats.



In addition to its beautiful architecture, Rostock also offers plays and grand cultural events, a summer theatre inside a traditional shipyard and unique museums.

Pure nature on the Baltic Sea and ship-watching? These are the advantages of the seaside resort Warnemünde. Wide sandy beaches and rugged cliffs, moles, a lighthouse and neat fishermen's houses, a promenade with lavish villas in the typical Baltic seaside resort architecture and cosy bars. Big ferries, fish cutters and small sailing boats are not just there to look at, but you can also go for sea trips on them.

REGISTRATION

REGISTRATION

Online registration is possible via the conference website www.processnet.org/igcc2011. Confirmation of registration and the invoice will be sent on receipt of the registration. In general there is no registration deadline as long as free capacity is available. Publication deadline for appearance in the list of participants is May 27, 2011.

REGISTRATION FEE¹⁾

	Member ²⁾	Non-Member
Participant from Academia	325 €	340 €
Participant from Industry	520 €	535 €

1) No VAT requested acc. to § 4.22 UStG

2) Personal members of DECHEMA, GeCatS or VDI-GVC, EFC/EFCE passport holders

The conference ticket includes the book of abstracts, the list of participants, meals and beverages during the breaks.

PAYMENT

Payment should be made on receipt of the invoice stating the invoice number to one of the DECHEMA accounts given on the invoice. Payment by credit card is also possible.

CANCELLATION AND REFUNDS

EUR 30 administrative costs will be charged for cancellations made before May 27, 2011. Thereafter 80% of the registration fee will be invoiced, however, the book of abstracts will be sent. Cancellations must be made in writing (letter, fax or email).

If the event is cancelled by DECHEMA, the whole fees will be refunded. Further claims for compensation are excluded.

SOCIAL PROGRAMME

Boat trip and conference dinner, June 21, 19:00 55 € plus VAT

Enjoy the conference dinner during a cruise through Rostock's historic harbours: "Rostocker Stadthafen", once the most important arrival point for ships from all over the world and the center of Rostock, the seaport "Rostock Port", one of the most important seaports of the Baltic Sea, the fishing harbour, the modern marina in Warnemünde and the "Alten Strom" with its almost legendary fishing boats.