

15th International Congress on Catalysis

Munich

July 1 - July 6, 2012



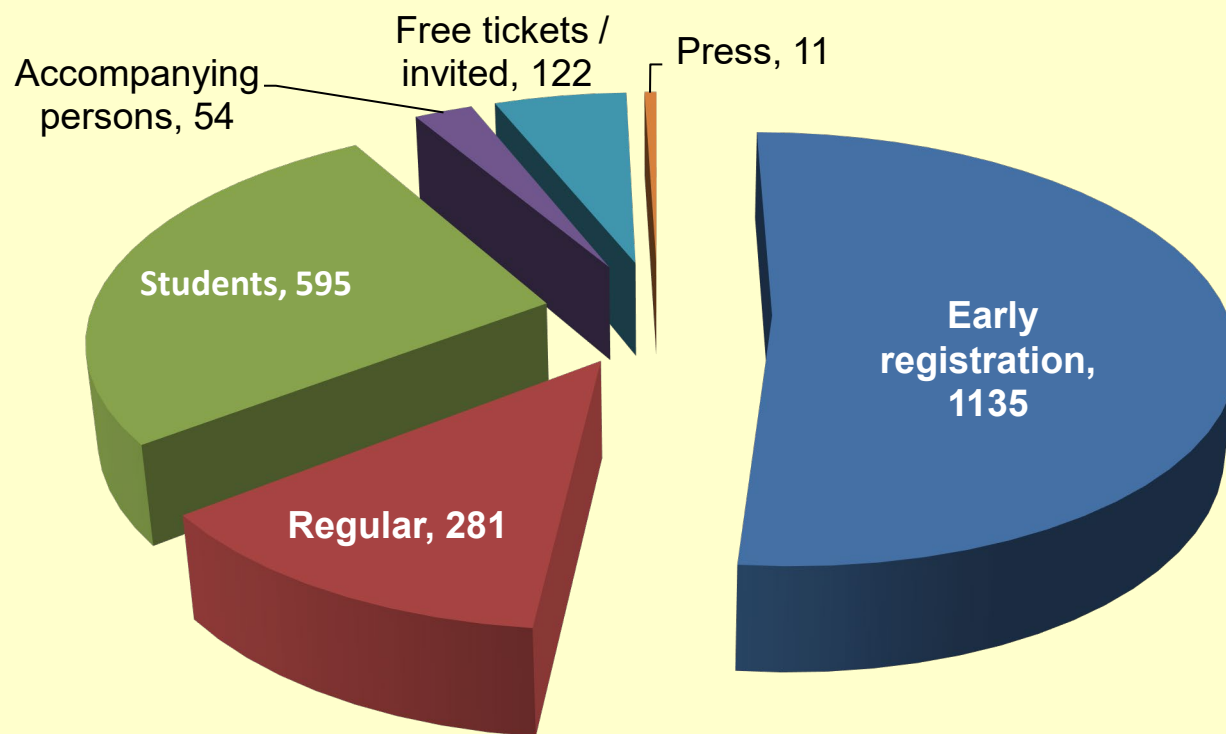


Outline

- Pre-conference communication
- Participation
- Thematic structure
 - Overview
 - Submission – acceptance
 - Oral presentations – structure
 - Poster – workshops
- Meeting venue
- Sponsors

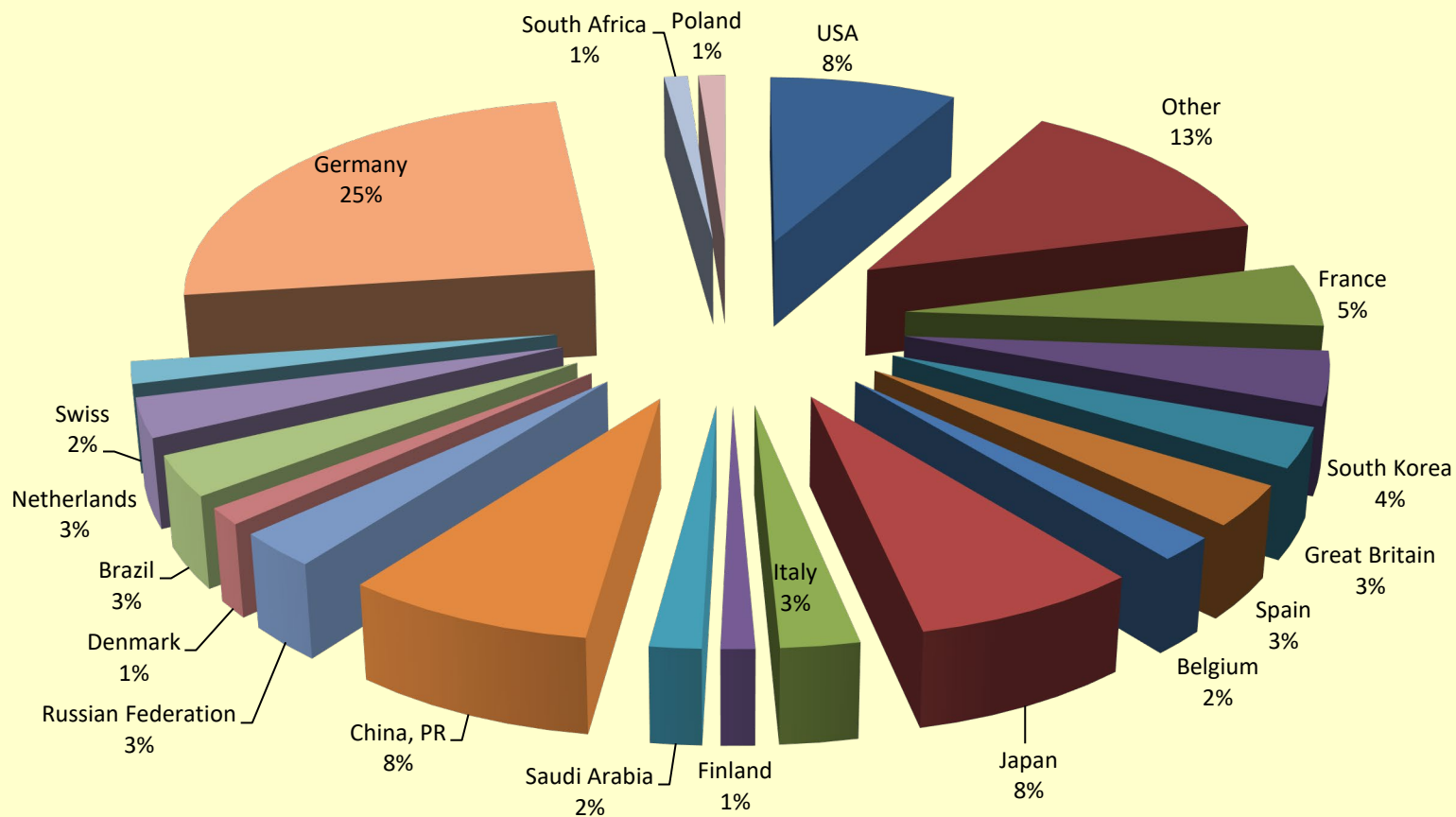
Participant statistics

2198 Registered participants
42 Exhibitors



Participant statistics

Participants from 58 countries



From fundamental understanding to catalyst design and novel processes

Mechanisms	Materials	Processes	Cross disciplinary thrust
Understanding catalysts and catalytic reactions	Design, synthesis, characterization of catalysts	Novel approaches to catalytic transformations	New ideas at boundaries
Catalysis for energy applications (alkane activation, petroleum chemistry, hydrogen production/storage, conversion of heavy feeds, biofuels, energy storage and conversion,...)			Photocatalysis Organocatalysis/ Biocatalysis Organometallic catalysis Industrial implementation ...
Catalysis for chemical synthesis (green synthesis, petrochemistry, use of renewables, fine chemicals and pharmaceuticals, enantioselective catalysis...)			
Catalysis for environmental applications (cleaning exhaust streams, catalytic upgrading of waste materials, catalysis for fuel cells...)			



Submission statistics

Submitted contributions: 2565

- Oral presentation: 1665
- Poster presentation: 900

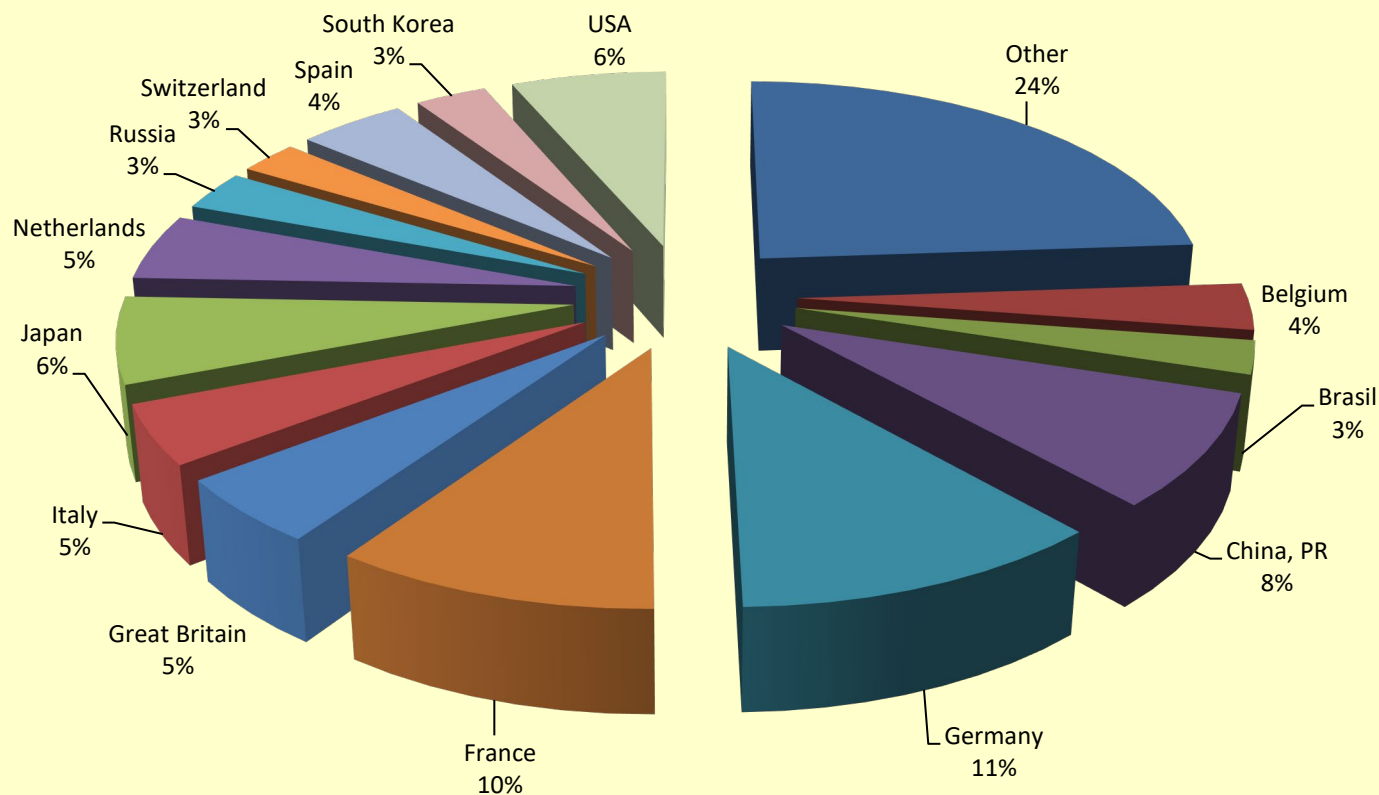
Accepted contributions: 2118

- Oral presentation: 242 (205 in three threads)
- Poster presentation: 1876 (1480 submitted electronically)

- Plenary lectures: 6
- Keynote lectures: 15
- Keynote lectures in 4 cross-disciplinary workshops : 9



Oral presentations/country



Thematic structure

- 1.01. Catalytic processes in petroleum refining – general
- 1.02. Catalytic cracking, hydrocracking and isomerization
- 1.03. Clean fuels, hydrotreating, hydrodesulfurization, hydrodenitrogenation
- 1.04. Carbon-Carbon coupling reactions, alkylation, oligomerization
- 1.05. Hydrogen production/storage
- 1.06. Conversion of carbon rich unconventional fossil resources
- 1.07. Biomass conversion to fuels
- 1.08. Catalysis in energy storage and conversion (batteries, chemical storage)
- 1.09. Photo/electro catalysis
- 1.10. Fuel cell catalysis
- 1.11. Synthesis gas generation and catalytic conversion

- 2.01. Green synthesis
- 2.02. Advanced routes in petrochemistry for light olefin production, transformation of aromatics
- 2.03. Catalytic transformation of aromatic molecules, heteroatom functionalization, alkylation, disproportionation, isomerization
- 2.04. Platform and specialty chemicals from renewables
- 2.05. Fine chemicals and pharmaceuticals
- 2.06. Enantioselective catalysis
- 2.07. Biochemical routes to intermediates and fine chemicals
- 2.08. Polymerization

- 3.01. Cleaning exhaust streams,
- 3.02. Mobile source emission
- 3.03. Catalytic upgrading of waste materials
- 3.04. Catalysis in CO₂ capture, sequestration or utilization

- 4.01. Advances in computational catalysis
- 4.02. Novel routes to catalysis via nanotechnology
- 4.03. Novel concepts in acid-base catalysis
- 4.04. Advances in reactor technology (multifunctionality, structuring, size)
- 4.05. Catalyst immobilization and flow-systems

- 5.01 Physico-chemical characterization
- 5.02 Selective oxidation

New communication in more specialized areas - poster session

2 weeks before ICC
Poster uploaded



Reg. participants
access poster



ICC 2012

- Conventional display
- 10 monitors to access posters electronically
- 44 groups of posters (370 participants) were selected because of coherent interest for parallel symposia.
 - 2 chairpersons
 - 90 minutes time for presentations and discussions



Post - ICC 2012

- Poster archive at IACS website

Poster program organization

PS.01 Structure activity relations in FT processes,
PS.02 Oxidative de-hydrogenation
PS.03 Friedel crafts and alkane alkylation
PS.04 Epoxidation with Ti silicates
PS.05 Hydrotreating catalysts: new solutions to old challenges
PS.06 Methanol and direct DME synthesis
PS.07 Selective alcohol oxidation
PS.08 Novel aspects of NO_x reduction (with NH₃)
PS.09 Refoming of hydrocarbons to syngas
PS.10 BTX selective oxidation
PS.11 Versatil TiO₂-based photocatalysts
PS.12 Towards understanding sulfide catalysts
PS.13 Manipulating product distribution in FT processes
PS.14 Methanol to olefins
PS.15 Imaging/local probes for catalyst characterization
PS.16 Heteropolyacids
PS.17 Catalyst immobilization and flow systems
PS.18 Mechanistic aspects of the water-gas shift reaction
PS.19 CC-coupling/cleavage
PS.20 Catalysis in fuel cells
PS.21 Physicochemical effects influencing cracking
PS.22 Metathesis reactions

The four rooms (60 people capacity) are adjacent to each other and have all facilities required.

PS.23 Chemoselective hydrogenation
PS.24 Degradation of pollutants through photocatalysis
PS.25 Hydrocracking and hydroisomerization
PS.26 Hydroformylation and other reactions involving CO addition
PS.27 Enantioselective catalysis
PS.28 Novel photocatalysts for hydrogen generation
PS.29 Ruthenium dioxide, a versatile oxidation catalyst in heterogeneous and electro-catalysis
PS.30 Chemistry of alcohols
PS.31 Synchrotron methods for catalyst characterization
PS.32 Tailored Au and Au alloy particles
PS.33 Metal organic frameworks
PS.34 Conversion of triglyceride and fatty acids to fuels
PS.35 First principles based modeling
PS.36 Advanced characterization using NMR
PS.37 Conversion of lignocellulosic biomass to fuels and chemicals
PS.38 Lignin depolymerization and conversion of lignin model compounds
PS.39 Selective hydrogenation of CO₂
PS.40 In situ methods for characterizing catalyst and reactions
PS.41 Steam reforming of alcohols
PS.42 Synthesis of organic carbonates
PS.43 Advances in electron-microscopy
PS.44 Selective methane oxidation

Social events

Welcome party

Evening Poster Event

Bavarian evening at the Paulaner am Nockherberg Enjoy an typical Bavarian evening with your colleagues in a traditional Bavarian brewery (1100 registered participants)



Congress Dinner at the “Residenz” Munich

The Munich “Residenz” served as the seat of government and residence of the Bavarian dukes, electors and kings from 1508 to 1918. The architecture, interior decoration and works of art collected in the “Residenz” span the time of its use.



Students Party at the Club P1 (Thursday)

Munich’s most legendary and most traditional night club welcomes you. „P-one“ - as an abbreviation for „Prinzregentenstraße 1“, nearby U-station Odeonsplatz



Conference venue

15th INTERNATIONAL CONGRESS ON CATALYSIS

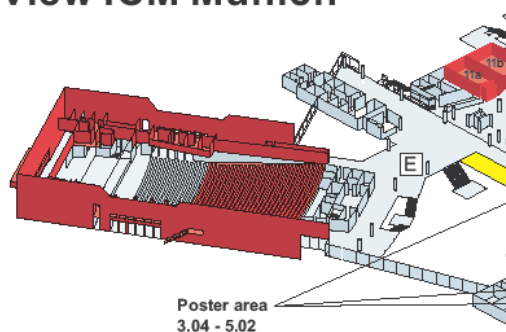
JULY 1-6, 2012 · MUNICH · GERMANY

FLOOR PLAN

FLOOR PLAN

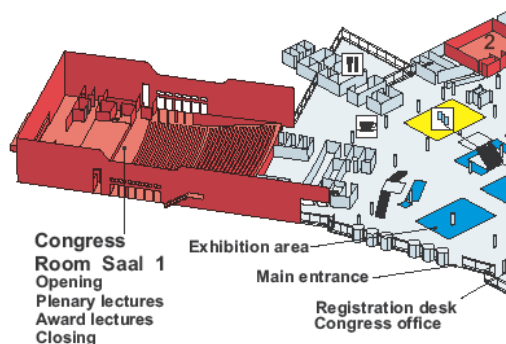
Overview ICM Munich

Level 1



Poster area
3.04 - 5.02

Level 0

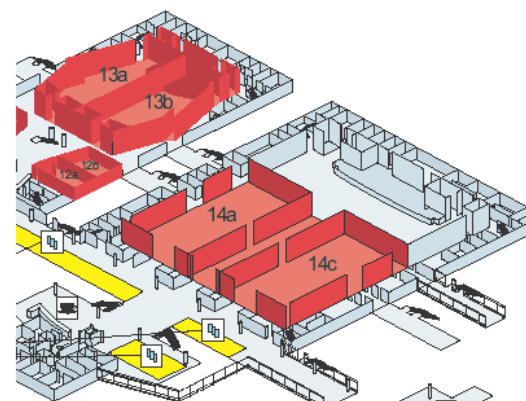


Congress
Room Saal 1
Opening
Plenary lectures
Award lectures
Closing

Exhibition area

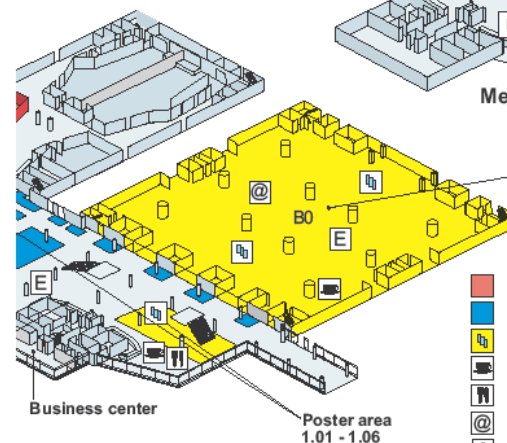
Main entrance

Registration desk
Congress office



Mezzanine Floor

Poster area
1.07 - 3.03



Business center

Poster area
1.01 - 1.06

- Congress area
- Exhibition area
- Poster area
- Coffee station
- Restaurant
- Internet station
- Wardrobe
- E-Poster

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<http://events.dechema.de/events/en/CongressPlaner.html>

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- for authors
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- abstract contents and more...

You can also search for sessions or a particular day.

Congress Planer



The screenshot shows a web browser window with two tabs, both labeled 'Dechema e.V. | Tagungen'. The address bar displays 'events.dechema.de/events/en/CongressPlaner.html'. The website header features the DECHEMA logo and the text 'Veranstaltungen'. A search bar with the placeholder 'Suche' is present. Navigation links include 'Home', 'Imprint', 'Privacy policy', 'Contact', 'Print', and 'Deutsch'. A breadcrumb trail reads 'Events > Events > 15th ICC 2012 > Congress Planer'. The main content area is titled 'DECHEMA'S CONGRESSENGINE: 15TH INTERNATIONAL CONGRESS ON CATALYSIS 2012 Congress Planer'. It includes three buttons: 'Your personal Planner', 'Druckansicht', and 'Download as ZIP'. There are two search sections. The first has a 'Search for' input with 'bio', a 'Category:' dropdown with 'title', and a 'Search' button. The second has a 'Search for' dropdown with 'all sessions', a 'on' label, a date range dropdown with 'all days', and a 'Search' button. A left sidebar contains a menu with 'Events', 'Information', 'Events Archive', 'Tagungen befreundeter Organisationen', 'EuroPACT 2014', '15th ICC 2012', 'Committees', 'Final Program', and 'Authors Information'.

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Advances in computational catalysis
Biomass conversion to fuels

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05.07.2012
06.07.2012

Search all days or a
specific day

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- Kolloquien 2012/2013

ENGINE: 15TH INTERNATIONAL CONGRESS ON

Search for **Category:**

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Day, time	Session	Lecture
<input type="checkbox"/> select all		
<input type="checkbox"/> 04.07.2012 10:20	Green synthesis	Phosphines become green: Pd-catalysed P-C coupling of molecules with carboxylic acids in water <u>M. Ranocchiari</u> , S. Rummelt, J.A. van Bokhoven, Paul Scherrer Institut, Villigen PSI/CH
<input type="checkbox"/> 04.07.2012 10:40	Green synthesis	Performance of W-Nb-O/ZrO₂ for the gas phase dehydration of glycerol to acrolein <u>M. Massa</u> , A. Andersson, Lund University/S
<input type="checkbox"/> 04.07.2012 11:00	Green synthesis	Heterogeneous catalysts for intermolecular amination reactions

Search for session „Green synthesis“ all days

Make your selection

Congress Planer - Example

14:20	synthesis	comparison of the catalytic action of carbon supported gold and silver <u>F. Cárdenas-Lizana</u> , L. Kiwi-Minsker, École Polytechnique Fédérale de Lausanne/CH; S. Gómez-Quero, University of Amsterdam/NL; Z. M. De Pedro, Autonomous University of Madrid/E; M.A. Keane, Heriot-Watt University, Edinburgh/UK
<input type="checkbox"/> 06.07.2012 14:40	Green synthesis	Methylated cyclodextrin-stabilised Ruthenium(0) nanoparticles as active scaffolds for catalytic hydrogenation B. Léger, R. Herbois, S. Noel, University of Artois, Lens/F; A. Roucoux, ENSC Rennes/F; E. Monflier, <u>A. Ponchel</u> , University of Artois, Lens/F
<input type="checkbox"/> 06.07.2012 15:20	Green synthesis	Synthesis of sulfonated diphosphines-stabilized ruthenium nanoparticles: efficient nanocatalysts in hydrogenation reactions in biphasic media <u>M. Guerrero Hernandez</u> , K. Philippot, K. Fajerwerg, Centre National de la Recherche Scientifique, Toulouse/F; E. Monflier, H. Bricout, Université d'Artois, Lens/F; A. Roucoux, A. Nowicki, ENS Chimie de Rennes/F
<input type="checkbox"/> 06.07.2012 15:40	Green synthesis	Hydroxyapatite hosting niobium: a new class of amphoteric catalysts for carbohydrate transformation reactions P. Carniti, <u>A. Gervasini</u> , M. Marzo, University of Milan/I

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<input type="checkbox"/> 04.07.2012 11:00	Green synthesis	Heterogeneous catalysts for intermolecular amination reactions

Congress Planer - Example

 <p>Gesellschaft für Chemische Technik und Biotechnologie e.V.</p>		
Day, time	Session	Lecture
04.07.2012 10:20	Green synthesis	Phosphines become green: Pd-catalysed P-C coupling of molecules with carboxylic acids in water <u>M. Ranocchiari</u> , S. Rummelt, J.A. van Bokhoven, Paul Scherrer Institut, Villigen PSI/CH
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04.07.2012 11:00	Green synthesis	Heterogeneous catalysts for intermolecular amination reactions <u>A. Peeters</u> , P. Valvickens, D. De Vos, K.U. Leuven, Heverlee/B
04.07.2012 11:20	Green synthesis	Nanostructured Ni-based catalysts for hydrogenolysis of polyalcohols <u>T. Sotak</u> , T. Schmidt, M. Hronec, Slovak University of Technology, Bratislava/SK
04.07.2012 11:40	Green synthesis	Making the best of the unique properties of water - a special solvent for cross-coupling reactions <u>J. Eppinger</u> , D. Jantke, P. Walter, S. Lauw, A. Zernickel, J. Ramasamy, King Abdullah University of Science and Technology, KAUST, Thuwal/SA
04.07.2012 13:20	Green synthesis	Catalytic chemicals production using supported metal catalysts with water and carbon dioxide <u>M. Shirai</u> , A. Yamaguchi, O. Sato, N. Hiyoshi, National Institute of Advanced Industrial Science and Technology (AIST), Sendai/J
04.07.2012 13:40	Green synthesis	Ru-catalyzed hydroamidation of terminal alkynes - reaction development, mechanism and applications <u>L. Gooßen</u> , M. Arndt, A. Fromm, K.S.M. Salih, A. Buba, F. Menges, G. Niedner-Schatteburg, TU Kaiserslautern/D
04.07.2012 14:00	Green synthesis	Sulfonated hybrid solid material as catalyst for multi-component reactions (MCR) S. Santiago, <u>T. Viveros</u> , Autonomous Metropolitan University Iztapalapa, México, D.F./MEX
04.07.2012	Green	Mononuclear magnesium fluorides - tunable catalysts for fine chemical synthesis and biomass conversion



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www.icc2012.org