

## **IACS NewsLetter # 1, 2005**

- 1) Message of the President
- 2) IACS Council Meetings
- 3) 14th ICC News
- 4) APACS (Asia-Pacific Association of Catalysis Societies) Has Launched
- 5) Introducing Catalysis Societies Members of IACS: Brazilian Catalysis Society
- 6) News from Catalysis Community
  - 6.1) New appointments to the IACS Council
  - 6.2) IACS Council Directory
  - 6.3) Awards
  - 6.4) People
- 7) Relevant Events, until December 2005

## 1) Message of the President by Prof. Alexis T. Bell

Dear Colleagues:

I would like to begin this message by expressing my thanks to Dr. Michele Breysse, Chair of the Organizing Committee, and her team for their exceptional making the 13th ICC a splendid success. More than 2000 individuals from 57 countries attended the Congress held in Paris July 11-16, 2004, making this the best attended ICC ever. Seven plenary, 168 oral, and 1349 poster presentation were made during the course of the week. Five of the plenary presentations were published in *Catalysis Reviews-Science and Engineering* (Vol. 46(3&4), 2004).

At the end of the Congress it was announced that the 14 ICC will be held in Seoul, Korea in the summer of 2008. Prof. Sang Heup Moon will serve as the Chair of the Organizing Committee for this Congress. The names of other members of the Organizing Committee are given in Item 3 of this Newsletter, and further information about the Congress will be posted on the website <http://www.icc2008korea.com>.

In Paris, 17 representatives of countries on the Pacific Rim met to formalize the organization of the Asian Pacific Association of Catalysis Societies (APACS). The objectives of this organization will be:

- To promote scientific and technical progress both in the fundamental understanding and the application of catalysis as well as in related scientific disciplines;
- To organize the Asia-Pacific Congress on Catalysis, referred to as (APCAT);
- To serve as a center for catalysis scientists in this region to exchange academic and scientific information and viewpoints in their specific fields;
- To provide liaison with foreign catalysis societies, e.g., IACS;
- To arrange meetings as the necessity should arise and to approve bylaws or activities as shall advance the above objectives.

A draft of the Constitution was discussed and is now being refined. The final version of the Constitution will be signed by all APACS representatives during the APCAT meeting in Singapore (2006). The following persons were elected as members of the Central Committee:

Chairperson	David Trimm (Australia)
Vice Chairperson	Masakazu Iwamoto (Japan)
Secretary	Fengshou Xiao (China)
Treasurer	Jae Sung Lee (Korea)
Members	Masakazu Anpo (Japan)
	Can Li (China)
	Chi-bun Ching (Singapore)

As was discussed in Paris, it is planned to hold meetings of the IACS representatives in the interval between ICC meetings. I propose to hold the first of such meetings during the North American Meeting of the North American Catalysis Society, which will be held in Philadelphia (May 22-27). An enquiry regarding your availability to participate in such a meeting will be sent to you shortly by Prof. In Sik Nam, the Secretary of IACS.

## 2) IACS Executive Committee

According to the recommendations by the former Executive Committee, the Committee may meet at least once a year during major international catalysis meeting including NACS, AIChE, ACS and Europacat. The most probable date for the first meeting may be scheduled during the NACS Meeting (Philadelphia, May 22-27, 2005).

## 3) 14th ICC News

The Korean Catalysis Society have decided as chairpersons of committees for the preparation of the 14th ICC to be held in 2008. Additional information concerning the 14th ICC will be available at the website, <http://www.icc2008korea.com>.

Chairman of the Organizing Committee

Prof. Sang Heup Moon

Department of Chemical and Biological Engineering

Seoul National University

San 56-1, Shillim-dong, Kwanak-ku, Seoul 151-744, Korea

Tel) 82-2-880-7409; Fax) 82-2-875-6697; e-mail) [shmoon@surf.snu.ac.kr](mailto:shmoon@surf.snu.ac.kr)

Chairman of the Scientific Committee

Prof. Seong Ihl Woo

Department of Chemical & Biomolecular Engineering

Korea Advanced Institute of Science and Technology

373-1, Kusong-dong, Yusong-ku, Daejeon 305-701, Korea

Tel) 82-42-869-3918; Fax) 82-42-869-3910; e-mail) [siwoo@kaist.ac.kr](mailto:siwoo@kaist.ac.kr)

Chairman of the Program Committee

Prof. Jae Sung Lee

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Tel) 82-54-279-2266; Fax) 82-54-279-5528, e-mail) [jlee@postech.ac.kr](mailto:jlee@postech.ac.kr)

Chairman of the Finance Committee

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Tel) 82-54-279-2264; Fax) 82-54-279-8299; e-mail) [isnam@postech.ac.kr](mailto:isnam@postech.ac.kr)

#### **4) APACS (Asia-Pacific Association of Catalysis Societies) Has Launched**

The Asia-Pacific Association of Catalysis Societies (APACS, pronounced as [ˈeɪpæks]) has launched on July 14, 2004 when 18 delegates from 11 Asia-Pacific countries assembled in Paris on July 14, 2005 during the 13<sup>th</sup> ICC agreed on the outline of the Constitution and selected Executive Committee members. The organization will become an official vehicle to promote scientific and technical progress in Asia-Pacific region both in the fundamental understanding and in the application of catalysis, and in those related scientific disciplines, and to organize the Asia-Pacific Congress on Catalysis (known as APCAT). It will also complete troika of regional organizations that provide liaison with the International Association of Catalysis Societies (IACS) together with incumbent NACS (North American Catalysis Societies) and EFCATS (European Federation Catalysis Societies). The affairs of APACS will be conducted by Committee (equivalent to Council of IACS) made of 1-2 delegates from member countries. The Officers of the Committee performing administrative duties for three years consist of (the selected officers ); a Chairman (D. Trimm, Australia), Vice-Chairman (M. Iwamoto, Japan), Secretary (F. Xiao, China), and Treasurer (J.S. Lee, Korea). In addition, M. Anpo (Japan), the former (C. Li, China) and the next (C.-B. Ching, Singapore) APCAT organizing chairmen will also serve as the Officers. The long-standing Secretariat office will be located in Dalian, China. The need for this kind of organization has been discussed since 1999 at the second APCAT in Sydney and agreement on principle was reached in 2003 at the third APCAT in Dalian. This meaningful event was observed by M. Che and A.T Bell as the invited representatives of IACS.

#### **5) Introducing a Catalysis Society: Catalysis activities in Brazil**



*Brazilian Catalysis Society*

##### **1. Introduction**

The activities in catalysis started in Brazil in early 1970. The first attempt to organize a Brazilian catalysis committee was during the "VI Ibero-American Symposium on Catalysis" in Rio de Janeiro in 1978. This symposium has motivated us to organize the first Catalysis Meeting in 1981 in Rio de Janeiro. Similar meetings were held uninterruptedly every two years, but in different Brazilian regions. The Catalysis Committee was created in 1981 and the goal was to organize national meetings, short courses, collection data of Brazilian industries and Universities.

Petrochemical and Petroleum industries in Brazil were built in the query sixties and seventies operating modern and large factories. The great demand in catalysis in the industry and the interest of the young established catalysis community undoubtedly induced the National Council on Research (CNPq) to allocate specific funds for a Brazilian Program on Catalysis since 1983, supporting research on catalysis in different Universities. The astonishing growth in catalysis favored naturally the formation of 4 regional groups from north to south of Brazil and consequently opened good opportunities for young researchers.

From the industrial point of view big changes occurred in the 80'ss. Besides the amplification of three existing petrochemical pools (Camaçari, S.Paulo and Copesul) an important factory for FCC catalysts production was built in Rio de Janeiro by a joint venture of Petrobrás, Akzo and Oxiteno. The first big factory for car converters exhaust catalysts was built in 1988 by Newtechnos-Degussa in S.Paulo, supplying catalysts for all Latin America market.

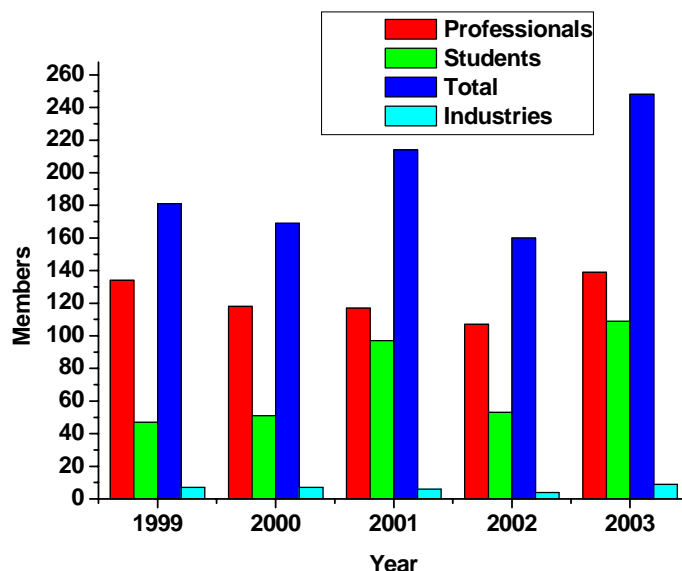
In 1997 we decided to transform the bi annual Catalysis Meeting to the “Brazilian Congress on Catalysis” and formalized an independent Catalysis Society, with the election of the first directory in 1998. In 2000 the Brazilian Catalysis Society requested officially membership and was accepted by the International Association of the Catalysis Societies (IACS). In 2001 we formalized the “1st Mercosul Congress on Catalysis”, (Brazil, Argentina, Uruguay, Chile, and Paraguay) held every two years in different countries [<http://www.sbcats.org/history.htm>].

Finally, more than 50 Brazilian researchers attended the last 13th International Congress on Catalysis in Paris, with a relevant number of poster presentations and one invited keynote lecture (Dr. Eduardo Fallabela de Souza Aguiar).

## 2. The Brazilian Catalysis Society

The Brazilian Catalysis Society (SBCat) accounts 248 members and 6 associated industries, which are detailed at the Web page <http://www.sbcats.org/socios.htm>. Noteworthy is the affiliation of six important industries dealing with catalysis, as listed below:

<a href="#">CBMM – Cia Brasileira de Metalurgia e Mineração</a>	<a href="#">Polialden Petroquímica</a>	<a href="#">Braskem Insumos Básicos</a>
<a href="#">Degussa Brasil Ltda</a>	<a href="#">Fábrica Carioca de Catalisadores</a>	<a href="#">Instituto Brasileiro de Petróleo</a>
<a href="#">Oxiteno S/A Indústria e Comércio</a>	<a href="#">Petrobras – Petróleo Brasileiro</a>	<a href="#">Politeno Indústria e Comércio</a>



Members of the Brazilian Catalysis Society

### 3. The Brazilian Congresses on Catalysis

Since 1981 the Brazilian Catalysis Society organizes a Congress on Catalysis every 2 years. The 12th Congress was held last year, with about 320 participants. The growth of participants and contributions are presented in figure 1. Noteworthy is the big growth in the last 10 years. In addition, the quality of these contributions was markedly enhanced. Selected papers are published in *Annals* and distributed during the congress. Eventually, approximately 20 contributions are selected for publications in special issues of international journals. In the last Congress two Awards were given for a young researcher and for the best doctoral thesis from the Brazilian Catalysis Society, financially supported by Petrobrás and Degussa, respectively.

During this period the Brazilian Society organized two “Ibero American Symposia” and the “V Group Elements Symposium”, beside 2 more Mercosul Congresses. The next “8th Natural Gas Conversion Symposium” will be held in Brazil in 2007.

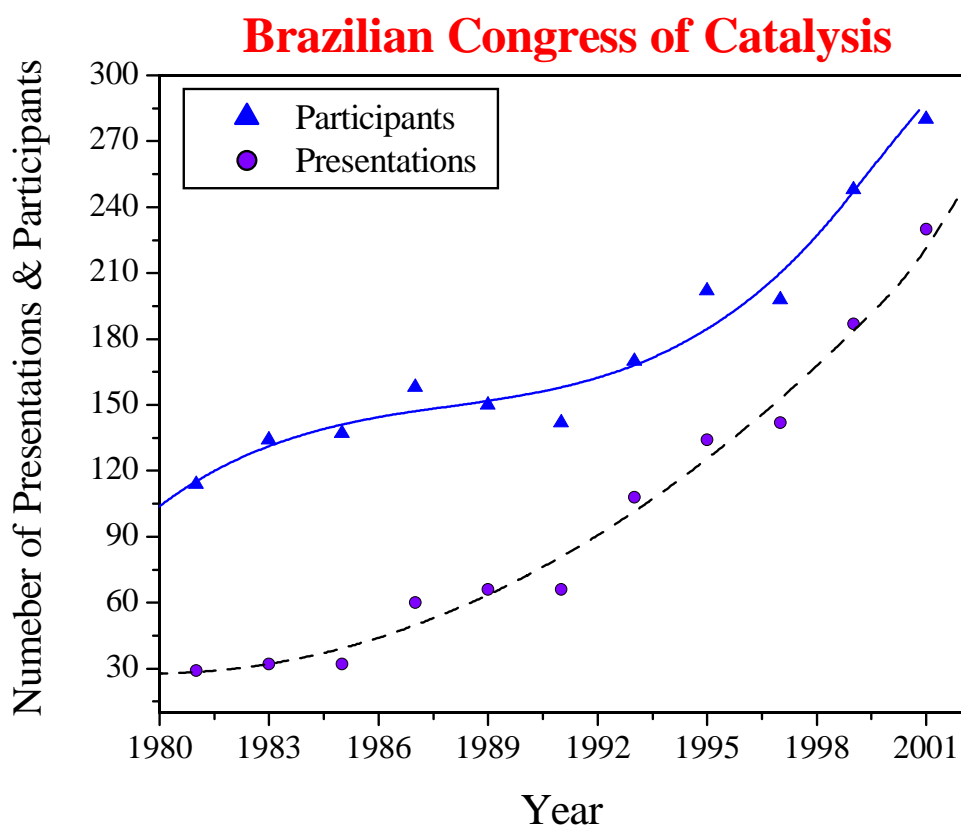


Figure 1 – Evolution of the Brazilian Congress of Catalysis

### 4. International cooperation

International cooperation's on research and doctoral sandwich programs are supported by CNPq and CAPES with France -CNRS, USA-NSF, Argentine-CONICET and Spain, DFG, DAAD -Germany, British Council-England), as well as a specific research programs with the Ibero-American program -CYTED- in different fields of catalysis.

Invited scientists and researchers attended the Brazilian Congress on Catalysis in plenary or invited lectures (Somorjai, Prins, Hölderich, Corma, Iglesia, Sauer, for example), focusing special attention in different areas.

Brazilian scientists are members of the editorial board of important international journals, in particular of *Applied Catalysis A* (M.Schmal); *Catalysis Today* (M.Schmal); Guest editors of four special issues in *Catalysis Today* (M.Schmal, F.B.Noronha, Roberto de Souza, Arnaldo Faro Jr., Victor da Silva, F.Passos, C.J.A.Mota); *Catatec* (J.L.F.Monteiro).

## **5. Markets for Catalysts in Brazil**

Brazil produces cracking catalyst in the FCC Company (Fabrica Carioca de Catalisadores), a joint company between Petrobrás, Oxiteno and Akzo (capacity of approximately 32,000 ton/Year). Brazil produces also catalytic car converters for exhaust gases in Newtechnos (Degussa) (around 1.6 million converters), besides other specific productions. Catalysts markets is shown in <http://www.sbcats.org.br/mercadoat.htm>

## **6. Students and Human Resources**

Marked improvements in research and human resources on catalysis were achieved in different Brazilian Universities in the last 10 years. They are supported by special Funds of the Federal government of the Science and Education ministries, in particular by FINEP (PADCT, PRONEX, and CTPetro), CNPq, CAPES and the State governments (Fundações de Amparo a Pesquisa). Funds from royalties of Petrobrás fomented special research programs in Natural Gas Conversion, Petroleum and Fundamental studies. These projects are 50% shared with Petrobrás when application is foreseen or totally supported by CNPq for fundamental researches.

## **7. Selected research programs**

Topics with great impact are being developed in different research groups in collaboration with industries and research centers:

1. *Environmental catalysis*
2. *Natural gas conversion*
3. *Hydrocracking and hydrotreating*
4. *Total and selective oxidation*
5. *New materials*

## **8. WEB of the Catalysis Society**

The Society supports two e-mail lists for catalysis, listing all members of the society and other affiliated societies, including Ibero-American countries. The web site (<http://www.sbcats.org.br/informacoes.htm>) contains information about our organization and other activities, including other catalysis societies.

Martin Schmal - member IACS Council  
Dilson Cardoso - President of the Brazilian Catalysis Society - SBCat

## 6) News from Catalysis Community

### 6.1) New appointment at IACS Council

Prof. Andras Erdohelyi (Institute of Solid State and Radiochemistry, Szeged, Hungary) and Prof. Zoltan Paal (Institute of Isotopes, Budapest, Hungary) have been appointed by the Hungarian Catalysis Society, in replacement of Profs. Frigyes Solymosi and Pal Tetenyi.

### 6.2) Modification of the IACS Directory

- address of Prof. Andras Erdohelyi  
Institute of Solid State and Radiochemistry  
Szeged, P.O. Box 168  
H-6701, Hungary  
[erdohely@chem.u-szeged.hu](mailto:erdohely@chem.u-szeged.hu)
- address of Prof. Zoltan Paal  
Institute of Isotope  
Hungarian Academy of Sciences  
Konkoly Th.M. u. 29/33, P.O. Box 77  
Budapest 1525, Hungary  
[paal@iki.kfki.hu](mailto:paal@iki.kfki.hu)

### 6.3) Awards

- **E. Iglesia** has received the 2005 George A. Olah Award in Hydrocarbon Chemistry from the American Chemical Society. It will be presented at the 2005 ACS Meeting in San Diego in March 2005. Enrique has been also awarded the 2005 Robert Burwell Lectureship in Catalysis. The award is sponsored by Johnson Matthey Catalysts and administered by the North American Catalysis Society.

- **M. Davis** of Caltech has received the E. V. Murphree Award in Industrial and Engineering Chemistry sponsored by ExxonMobil Research and Engineering Company and ExxonMobil Chemical Company.

- **W. Goodman**, Texas A&M University will receive the 2005 Gabor A. Somorjai Award for Creative Research in Catalysis sponsored by the Gabor A. and Judith K. Somorjai Endowment Fund.

- **I. Wachs** of Lehigh University was one of two scientists selected by the ACS Division of Colloid & Surface Chemistry as winners of its 2004 Langmuir Lecture Awards.

- **Matthew Neurock** has been selected as the 2005 Paul H. Emmett Awardee in Fundamental Catalysis. The award consists of a plaque and a prize. Matt will give a plenary lecture and be recognized at the Spring 2005 North American Catalysis Society meeting in Philadelphia.

- **Henrik Topsøe** of the Haldor Topsøe Research Laboratories, Lyngby, Denmark has been selected as The 2005 Eugene J. Houdry Awardee in Applied Catalysis. The award is sponsored by Süd-Chemie, Inc., and administered by the North American Catalysis Society. Henrik will give a plenary lecture and be recognized at the Spring 2005 North American Catalysis Society meeting in



Philadelphia. The lectureship provides an honorarium and a travel stipend that will allow him to visit many of the local clubs of the North American Catalysis Society.

## 6.4) People

- **Professor James Schwarz** of Syracuse University died earlier in the day of Sept. 26, 2004 at St. Joseph's Hospital in Syracuse following a long illness. He was 60. A native of New Jersey, Schwarz received his bachelor's and master's degrees from Stevens Institute of Technology in Hoboken, N.J. He began his college career studying mathematics, but found his niche in chemical physics and applied chemistry. As a doctoral student at Stanford University, he participated in vitamin C research with Nobel Prize winner Linus Pauling and then spent a year at Cambridge University working with renowned physicist and chemist Jack Linnett.

## 7) Relevant Events, until December 2005

May 10 – 13, Matsue (Japan)

*The 10th Japan-Korea Symposium on Catalysis*

Additional information: <http://www.ipc.shimane-u.ac.jp/catalyst/jkscat10>

May 21 – 28, 2005, Philadelphia, PA, (USA)

**19th NAM**

*19th North American Catalysis Society Meeting*

Additional information: [www.19nam.org](http://www.19nam.org)

June 01 – 05, 2005, Tallin, Estonia

*Materials and Technologies for Sustainable Chemistry*

Additional information: [www.sustainchem.ttu.ee](http://www.sustainchem.ttu.ee)

June 05 – 08, 2005, Heidelberg (Germany)

**4th ICEC**

*4th International Conference on Environmental Catalysis*

Additional information: <http://www.dechema.de/veranstaltung/icec/englisch/index.htm>

June 12 – 15, 2005, Gyeongju (Korea)

**APCRE '05**

*4th Asia-Pacific Chemical Reaction Engineering Symposium*

Additional information: <http://www.dicer.org/apcre05-1>

June 15 – 18, 2005, Portoroz-Portorose (Slovenia)

**CAMURE-5 & ISMR-4**

*5th International Symposium on Catalysis in Multiphase Reactors & 4th International Symposium on Multifunctional Reactors*

Additional information: [www.camure5-ismr4.ki.si](http://www.camure5-ismr4.ki.si)

June 19 – 22, 2005, Salzburg (Austria)

*International Ionic Liquids Conference*

Additional information: not yet available

June 20 – 23, 2005, Oslo (Norway)

**ICCDU 8**

*8th International Conference on Carbon Dioxide Utilization*

Additional information: [Richard.H.Heyn@sintef.no](mailto:Richard.H.Heyn@sintef.no)

June 20 – 24, 2005, Washington, DC (USA)

*2nd International Conference on Green and Sustainable Chemistry*

Additional information: [www.chemistry.org/greenchemistryinstitute/meetings.html](http://www.chemistry.org/greenchemistryinstitute/meetings.html)

June 27 – July 2, 2005, Puerto Vallarta (Mexico)

*5th International Symposium on Acid-Base Catalysis*

Additional information: [www.abs-v.org](http://www.abs-v.org)

July 10 – 14, 2005, Glasgow (UK)

*7th World Congress of Chemical Engineering*

Additional information: [www.chemengcongress2005.com/](http://www.chemengcongress2005.com/)

July 17 – 21, 2005, Geneva (Switzerland)

**OMCOS 13**

*13th IUPAC Symposium of Organometallic Chemistry Directed Towards Organic Synthesis*

Additional information: <http://omcos13.unige.ch>

July 18 – 22, 2005, Florence (Italy)

**ISHHC-12**

*12th International Symposium on Relations between Homogeneous and Heterogeneous Catalysis*

Additional information: <http://www.ishhc12.it/>

August 21 – 24, 2005, Strasbourg (France)

*Gas to Liquid and Gas-Liquid-Solid Reactor Engineering-7*

Additional information: [www.ensic.inpl-nancy.fr/GLS7](http://www.ensic.inpl-nancy.fr/GLS7)

August 23 – 26, 2005, Prague (Czech Republic)

**FEZA 3**

*3rd International FEZA Conference*

Additional information: [www.jh-inst.cas.cz/~feza2005](http://www.jh-inst.cas.cz/~feza2005)

August 28 – September 1, 2005, Sofia (Bulgaria)

*Europacat-VII*

Additional information: [petrov@ic.bas.bg](mailto:petrov@ic.bas.bg), [icatalys@ic.bas.bg](mailto:icatalys@ic.bas.bg)

September 11 – 14, 2005, Ischia (Italy)

**IWCC 6**

*6th International Workshop on Catalytic Combustion*

Additional information: <http://www.iwcc6.unisa.it>

September 21 – 24, 2005, Cracow (Poland)

**APAC 2005**

*International Symposium on Air Pollution Abatement Catalysis*

Additional information: <http://www.karboch.gliwice.pl/apac2005>

September 25 – 30, 2005, Sapporo (Japan)

**5th WCOC**

*5th World Congress on Oxidation catalysis*

Additional information: <http://www.e-convention.org/5wcoc/>

October 16 – 19, 2005, Delft (Netherlands)

**ICOSCAR-2**

*2nd International Conference on STRUCTURED CATALYSTS AND REACTORS*

Additional information: <http://www.icoscar2005.com>

October 19 – 21, 2005, Santa Fe (Argentina)

*14th Argentinean Congress on Catalysis*

Additional information: <http://www.fiquis.unl.edu.ar/xivcac/index.htm>

October 23 – 27, 2005, Bingen/Mainz (Germany)

*7th International Symposium on Catalysis Applied to Fine Chemicals*

Additional information: [www.dechema.de/cafc7](http://www.dechema.de/cafc7)

October 30 – November 4, 2005, Cincinnati, OH (USA)

*2005 AIChE Annual Meeting*

Additional information: <http://www.aiche.org/conferences/>

November 22 – 25, 2005, Zaragoza (Spain)

*2nd European Hydrogen Energy Conference*

Additional information: <http://www.ehec.info>

November 27 – 28, 2005, Dhahran (Saudi Arabia)

*Catalysts in Petroleum Refining and Petrochemicals*

Additional information: [maitani@kfupm.edu.sa](mailto:maitani@kfupm.edu.sa)

December 11 – 13, 2005, Cambridge (UK)

*Catalysis and Biocatalysis in Green Chemistry*

Additional information: <http://www.rsc.org/Green>

December 15 – 20, 2005, Honolulu, Hawaii

*PACIFICHEM 2005*

Additional information: <http://www.pacificchem.org>

July 13 – 18, 2008, Seoul (Korea)

**ICC 14**

*14th International Congress on Catalysis*

Additional information: <http://www.icc2008korea.com>