



International Zeolite Association

IZA Newsletter No. 8 April 2001

Message from the IZA President

It has become a tradition that at loose intervals the Executive Committee of the International Zeolite Association communicate with the members of the IZA through a Newsletter. The last issue (No. 7) appeared on the occasion of the 12th International Zeolite Conference (IZC) held in Baltimore, Maryland, USA in 1998. We are now looking forward to the 13th IZC in Montpellier, France, and it is certainly time for another issue of the IZA Newsletter. My special thanks go to Lynne McCusker for having taken over the post of IZA Secretary in early 2001, despite her numerous obligations elsewhere, and for having taken the initiative to put together the information contained in this Newsletter No. 8.

On behalf of the international zeolite community, I would also like to thank David H. Olson and Edith M. Flanigen and their team for having organized the 12th IZC in 1998 in Baltimore. All participants were impressed by the outstanding level of the scientific program and by the smooth and efficient organization. The efforts of our American colleagues made the congress a great success in every respect.

We have now returned to an interval of three years between International Zeolite Conferences, because the vast majority of the IZA members found this time span to be optimal. Hence, after the 13th IZC in Montpellier this summer, the 14th IZC will be held in 2004, and for the first time, the venue (Cape Town, South Africa) will be in the southern hemisphere. It fills us with satisfaction that the International Zeolite Conferences are now truly global events. For the 15th IZC to be held in 2007, very attractive bids have again been

submitted, and the IZA membership will have to decide between these two proposals in Montpellier.

It is natural that the IZA and its Council are primarily visible to the membership during the International Zeolite Conferences. This does not mean, however, that the IZA is passive during the time in between. In particular, the three IZA Commissions, i.e., the Structure, Synthesis and Catalysis Commissions, have been working particularly hard during the past three years. On behalf of the IZA Council, I would like to thank the respective Chairpersons, Lynne McCusker, Hans Lechert and Michael Stöcker and all of the members of their Commissions for their efforts. Highlights of their recent work are summarized in this Newsletter, and those who participate in the Montpellier IZC will find updated editions of the invaluable publications from the IZA Structure and Synthesis Commissions in their congress packages.

The science and technology of zeolites - the term being used in the broadest sense of the word - is now fairly advanced and some subfields can be said to have reached a certain degree of maturity. A whole generation of outstanding scientists, many of whom have dedicated their entire professional careers to the fascinating science and technology of zeolites, have provided us with an impressive variety of microporous and mesoporous materials and a fundamental physico-chemical understanding of their properties. Since the 12th IZC in 1998, many of these pioneers have retired, and we are sad to report that some have also passed away. Among those whose presence will be missed at future conferences are Werner O. Haag, George T. Kerr, Robert M. Milton and Robert van Nordstrand.

A younger generation of scientists is now taking on the challenges that remain in the field of zeolite

science. It continues to attract dedicated and talented researchers from virtually all of the natural sciences, and we look forward to hearing the latest advances at the 13th IZC this summer.

Jens Weitkamp

Current IZA Council

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International Zeolite Conferences

12th IZC in Baltimore

The 12th International Zeolite Conference was held in Baltimore, Maryland, USA, July 5-10, 1998 at the Hyatt Regency Hotel. The registered attendance was 774 participants and over 80 guests coming from 37 different countries. The top 10 countries in terms of the number of attendees were USA (305), Germany (66), Japan (62), France (47),

United Kingdom (42), The Netherlands (26), Belgium (24), Italy (23), Canada (21) and the Peoples Republic of China (16). Sixty three percent of the registrants were academics.

The technical program included 112 oral and 303 poster presentations. In addition, 68 Recent Progress Reports were selected for poster presentation. A dual session format was employed for regular oral presentations, and posters were presented in two two-day sessions.

The scientific program also featured a symposium dedicated to the memory of **Richard Maling Barrer**, FRS (1910-1996), who is unquestionably the "father" of zeolite chemistry, leaving a legacy of over 400 papers, 3 books and the respect and affection of those who knew him. His 60-year career covered zeolite synthesis, properties (ion exchange, sorption, diffusion, separations, catalysis, characterization), porous solid membrane research, theoretical studies on zeolite-molecule interactions, and isotherm predictions. The Barrer Symposium consisted of reflections on his legacy via lectures by four of his former students and associates.

The success of the conference was made possible by the considerable contributions of the 12th IZC committee chairs, and the members of their committees:

Program committee: Ray Gorte (chair), Günter Kühn (co-chair), John Higgins, Raul Lobo, Ahmad Moini, Alex Navratsky, Bob Thompson and Jim Vartuli;

Finance: David Vaughan; *Treasurer:* Michael Treacy; *Secretary:* Chuck Coe;

Publications committee: Bonnie Marcus (chair), Peggy Bisher, John Higgins and Michael Treacy; *Local Arrangements Committee:* Alan Peters (chair), Curt Conner, Terry Roberie and Brian Toby;

Pre-conference Zeolite School: Mike Bennett (chair), Bonnie Marcus and Wilfried Mortier.

The 12th IZC closed with a significant positive financial payment to the IZA.

Copies of the Proceedings of the 12th IZC, edited M.M.J. Treacy, B.K. Marcus, M.E. Bisher and J.B. Higgins, are available from the Materials Research Society at

www.mrs.org/publications/zeolite/info@mrs.org.

Finally, we attribute the many favorable comments to the overall high quality of the oral and poster presentations, the comfortable meeting facilities, a quality social program and the pleasant surroundings of Baltimore's Inner Harbor Area.

David Olson and Edith Flanigen
Conference Chair and Co-chair

13th IZC in Montpellier

This year's IZC will be held from July 8-13, 2001 in Montpellier, France. For further details see the website at <http://www.izc13.enscm.fr/>.

14th IZC in Cape Town

The next IZC will be held in Cape Town, South Africa from April 26-30, 2004. Contact Prof. Cyril T. O'Connor (ctoc@chemeng.uct.ac.za) for further information.

15th IZC

At the Montpellier IZC, two bids for the 15th IZC to be held in 2007 will be presented to the IZA membership. The members will then decide on the venue by ballot vote.

16th IZC

The 16th IZC will be held in 2010, and the venue will be decided at the 14th IZC in 2004. Persons interested in organizing the 16th IZC are invited to contact the IZA President. A letter of intent should be sent by October 31, 2003, and a completed questionnaire by December 31, 2003.

Breck Award 1998

The Donald W. Breck Award is presented at each IZC to an individual or group for the most significant contribution to molecular sieve science and technology achieved since the last conference. At the 12th IZC in Baltimore, it was awarded to **Pierre A. Jacobs, Dirk De Vos, Peter-Paul Knops-Gerrits, Ivo Vankelecom, Diederik Tas and Rudi Parton** of the Katholieke Universiteit Leuven, Belgium for having advanced our knowledge on ship-in-the-bottle syntheses of transition metal complexes in molecular sieves and for the use of such materials as enzyme mimicking catalysts in oxidation and enantioselective

hydrogenation reactions. Our congratulations to this highly respected research group and our best wishes for continuing successes!

IZA Award

The IZA Award is presented at each IZC to honor an individual for long-term commitment and contributions to zeolite science. The recipient serves as an IZA ambassador to the world zeolite community. At the 12th IZC in Baltimore, **Herman van Bekkum** was selected to receive the *IZA Award 1998* for his long-standing research on the application of zeolite catalysts to the selective preparation of organic intermediates and fine chemicals. We look forward to hearing about his experiences during his two-year ambassadorial term at the IZC in Montpellier.

At the 11th IZC in Seoul, the *IZA Award 1996* was presented to **Hellmut G. Karge** for his significant contributions over the years to (1) the understanding of zeolite acidity and of coke formation on zeolite catalysts, (2) the study of sorption, diffusion and counter-diffusion in zeolites by Fourier transform infrared spectroscopy, and (3) the modification of zeolites via solid-state ion exchange.

During his two year term as IZA Ambassador, Dr. Karge's travels took him to 30 places in 13 countries on four continents. He visited research groups in both Western and Eastern European countries, India, Taiwan, Hong Kong, Brazil and South Africa and presented a total of 43 lectures. He was able to take advantage of his wide experience in zeolite science to present lectures on a variety of topics selected from the following subfields: acidity, post-synthesis modification, catalysis, characterization, and diffusion and adsorption. His local hosts not only assisted with the organization and coordination of his lectures, but also made sure that ample time was reserved for discussions with undergraduate and graduate students. Thus Dr. Karge was able to fulfill the educational objective of this award most impressively. The IZA Council is indebted to the local organizers for their efforts to make Dr. Karge's visits so productive and to Dr. Karge for entering into the spirit of this award with such enthusiasm.

IZA on the Web

In September 2000, the International Zeolite Association registered its own domain name on the internet, so that in future the address should not change even though the person maintaining the site might. The address is:

<http://www.iza-online.org/>

The most up-to-date information from the IZA can be found there. A category of 'Announcements' has been added in response to requests that information be distributed to our membership, and a list of links to companies that use or produce zeolites has been started to assist members looking for this information. Additions to both of these lists are welcome. The membership address database on the web is growing and appears to enjoy frequent visits from our members. An editing mode for modifying outdated entries is planned for the near future. Any suggestions for improvements to the IZA website are welcome and can be sent by e-mail to Lynne McCusker (mccusker@kristall.erdw.ethz.ch), who is presently maintaining the site.

The Structure and the Synthesis Commissions also have permanent addresses now at

<http://www.iza-structure.org/> and
<http://www.iza-synthesis.org/>

respectively, and the information available on these sites is described in the Commission Reports below.

IZA Membership

It is easy to become a member of the IZA. Simply click on the 'Membership' link on the IZA website and follow the instructions, or write to the IZA Secretary. There are no membership fees.

News from the IZA Commissions

Structure Commission

Chairperson *Co-Chairperson*
Lynne B. McCusker John B. Higgins

Members

Duncan Akporiaye	Gilberto Artioli
Christian Baerlocher	Werner H. Baur
Ann Chippindale	Herman Gies
Ralf Grosse-Kunstleve	Richard M. Kirchner

Raul F. Lobo	Wilfried J. Mortier
Joseph V. Smith	Michael M.J. Treacy
Henk van Koningsveld	Paul A. Wright

Honorary Members

Walter M. Meier	David H. Olson
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Since the 12th IZC in Baltimore, the Structure Commission has (1) assigned fourteen 3-letter codes to new framework types (bringing the total number to 133), (2) completely reorganized and redesigned the Structure Commission's website, (3) introduced a catalog of disordered zeolite structures and model building schemes to the website, and (4) generated new hard copy editions of the *Atlas of Zeolite Framework Types* and the *Collection of Simulated XRD Powder Patterns for Zeolites*. Each of these projects is described in more detail below.

Framework Type Code Assignment

The term *zeolite structure type* has been changed to *zeolite framework type* in accordance with new IUPAC recommendations on nomenclature for ordered microporous and mesoporous materials (for more information, see the note under 'Odds and Ends' in this Newsletter). This recommendation was made after consultation with the members of the Structure Commission. It is hoped that the new term will eliminate, or at least minimize, the confusion between a *zeolite structure*, which always refers to a real material, and a *zeolite framework type*, which only describes the connectivity of the tetrahedrally coordinated atoms of a zeolite framework and does not refer to a specific material. The framework type, the type material from which it was derived, and the relevant reference(s) for each of the fourteen framework types that have been assigned new codes since July 1998 are listed below.

AEN AIPO-EN3

- [1] J.B. Parise, *Studies in Surface Science and Catalysis*, 24, 271-278 (1985)
- [2] R.M. Kirchner, R.W. Grosse-Kunstleve, J.J. Pluth, S.T. Wilson, R.W. Broach and J.V. Smith, *Microporous Mesoporous Mater.*, 39, 319-332 (2000)
- [3] K.O. Kongshaug, H. Fjellvåg, B. Klewe and K.P. Lillerud, *Microporous Mesoporous Mater.*, 39, 333-339 (2000)

- ASV** ASU-7
H. Li and O.M. Yaghi, *J. Am. Chem. Soc.*, 120, 10569-10570 (1998)
- DON** UTD-1F
T. Wessels, Ch. Baerlocher, L.B. McCusker and E.J. Croyghton, *J. Am. Chem. Soc.*, 121, 6242-6247 (1999)
- FRA** Franzinite
P. Ballirano, E. Bonaccorsi, A. Maras and S. Merlino, *Can. Mineral.*, 38, 657-668 (2000)
- GON** GUS-1
J. Plevert, Y. Kubota, T. Honda, T. Okubo and Y. Sugi, *Chem. Commun.*, 2363-2364 (2000)
- ISV** ITQ-7
L.A. Villaescusa, P.A. Barrett, M.A. Cambor, *Angew. Chem., Int. Ed.*, 38, 1997-2000 (1999)
- MSO** MCM-61
D.F. Shantz, A. Burton and R.F. Lobo, *Microporous Mesoporous Mater.*, 31, 61-73 (1999)
- MTF** MCM-35
P.A. Barrett, M.-J. Díaz-Cabañas and M.A. Cambor, *Chem. Mater.*, 11, 2919-2927 (1999)
- OSO** OSB-1
K.O. Kongshaug, H. Fjellvåg, K.P. Lillerud, T.E. Gier, G.D. Stucky and A.K. Cheetham, *private communication*
- SAS** STA-6
V. Patinec, P.A. Wright, P. Lightfoot, R.A. Aitken and P.A. Cox, *J. Chem. Soc., Dalton Trans.*, 3909-3911 (1999)
- SAV** STA-7
P.A. Wright, M.J. Maple, A.M.Z. Slawin, V. Patinec, R.A. Aitken, S. Welsh and P.A. Cox, *J. Chem. Soc., Dalton Trans.*, 1243-1248 (2000)
- SFE** SSZ-48
P. Wagner, O. Terasaki, S. Ritsch, J.G. Nery, S.I. Zones, M.E. Davis and K. Hiraga, *J. Phys. Chem. B*, 103, 8245-8250 (1999)
- SFF** SSZ-44
P. Wagner, S.I. Jones, M.E. Davis and R.C. Medrud, *Angew. Chem., Int. Ed.* 38, 1269-1272 (1999)
- STF** SSZ-35
P. Wagner, S.I. Jones, M.E. Davis and R.C. Medrud, *Angew. Chem., Int. Ed.* 38, 1269-1272 (1999)

Zeolite Structure Databases on the Web (<http://www.iza-structure.org/databases/>)

The Web versions of the *Atlas of Zeolite Framework Types* and the *Collection of Simulated XRD Powder Patterns for Zeolites* have been on the World Wide Web since the 11th IZC in Seoul (1996). Although the data has been updated periodically, the basic concept and layout has remained the same. Christian Baerlocher has now put all of the data into a common database, expanded the information and redesigned the layout. Furthermore, two new databases (disordered zeolite structures and model building schemes) have been added thanks to efforts by Hermann Gies and Henk van Koningsveld. The net result of the integration and multiple cross-linking is that the user can now switch very easily between the following entries: structural information, X-ray powder diffraction pattern calculation, references, disordered zeolite structures and model building schemes. The reorganization allows the structural information and the references to be searched in a way that was not possible before.

New Hard Copy Editions of the *Atlas* and the *Collection*

Completely updated hard copy editions of the *Atlas of Zeolite Framework Types* by Ch. Baerlocher, W.M. Meier and D.H. Olson and the *Collection of Simulated XRD Powder Patterns for Zeolites* by M.M.J. Treacy and J.B. Higgins will be distributed at 13th IZC in Montpellier. The production of these compilations required an enormous effort on the part of the authors (assisted by the members of the Structure Commission in the verification of the data), but in view of the echo we have received from the zeolite community in the past, we are confident that the time has been well invested.

Lynne B. McCusker

Synthesis Commission

<i>Chairperson</i>	<i>Co-Chairperson</i>
Hans Lechert	Brian Schoeman
<i>Members</i>	
Kenneth Balkus	Giuseppe Bellussi
Stefan Ernst	Zelimir Gabelica
Juan Garces	Koos Jansen

Henri Kessler	A.N. Kotasthane
Günter Kühn	Karl Petter Lillerud
Mario Occelli	Harry Robson
Michael Stöcker	Robert Thompson
David Vaughan	Stephen Wilson
Ruren Xu	Stacey Zones

The main activities of the Synthesis Commission in the period since the 12th International Zeolite Conference in Baltimore were devoted to the preparation of the second edition of *Verified Syntheses of Zeolitic Materials* and the development of a website. Further, a small commission has worked on the final formulation of the bylaws, which will be discussed at the conference in Montpellier.

A small group of members of the synthesis commission met with Rosemarie Szostak and Jens Weitkamp, the Treasurer and the President of the IZA, respectively, at the Chislehurst-type BZA meeting in Edinburgh in 1999 for a discussion of some principle questions regarding the second edition of *Verified Syntheses*.

Synthesis Commission Website

(<http://www.iza-synthesis.org/>)

The Synthesis Commission now has a new website at <http://www.iza-synthesis.org> maintained by Karl-Petter Lillerud, University of Oslo.

The website contains information about the Commission, introductory articles from *Verified Syntheses of Zeolitic Materials*, verified recipes for the preparation of 72 zeolites, a list of reference samples, and a link to the IZA website.

Second Edition of *Verified Syntheses of Zeolitic Materials*

A second edition of *Verified Syntheses of Zeolitic Materials* has been organized by Harry Robson with the help of Karl-Petter Lillerud, who recorded all of the X-ray powder diffraction patterns.

Because of problems with the price of extra copies of the first edition, a different approach has been adopted for the second edition. It will be distributed together with two publications from the Structure Commission to all participants at the 13th International Zeolite Conference in Montpellier.

Some problems with the first edition have also been discussed within the Commission. One was

that some of the starting materials used in the recipes are not commonly available. Another question was whether or not substances with T-atom substitution should be included. It was decided that these substances should be included, because the chemistry is generally more complex than a simple substitution of the source material.

The final manuscript contains 15 introductory articles and 72 recipes (48 old and 24 new), which are all verified twice. X-ray powder diffraction patterns have been recorded for all materials.

To date, six further recipes have been suggested for inclusion in a third edition. Four of these have only been verified once so far and the other two have problems. Four new introductory articles are also planned for the third edition.

Hans Lechert

Catalysis Commission

<i>Chairperson</i>	<i>Co-Chairperson</i>
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Michael Stöcker	Stefan Ernst
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Members

Dirk De Vos	Rajiv Kumar
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Cyril T. O'Connor	Carlo Perego
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Abdelhamid Sayari	
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The purpose of the Catalysis Commission of the International Zeolite Association is to establish procedures that will allow model reactions catalyzed by zeolites or related porous materials to be defined clearly, so that the performance and data treatment aspects of zeolite catalysis can be standardized and publication guidelines formulated.

To achieve this, the same zeolitic material (same batch) is subjected to the agreed-upon reaction under exactly the same conditions by the laboratories of all Commission members. This procedure requires that the test conditions, including the purification of the reactants and details of the equipment, be described unambiguously.

To begin with, the Commission has been concentrating on the disproportionation of ethylbenzene catalyzed by LaNa-Y with a given degree of metal exchange. This reaction is an acid-catalyzed process with a well-defined product distribution under the specified conditions. The test series performed included the disproportionation of ethylbenzene (290 mg dry catalyst blended with 3

ml quartz, nitrogen as carrier gas) at 180, 250 and 320 °C, respectively. Under these conditions the conversion of ethylbenzene, the yields of benzene and diethylbenzenes, their yield ratio and the distribution of the diethylbenzene isomers during a period of 24 hours are monitored. The results were presented and discussed during the Commission meeting in July 2000 in Granada (Spain) and looked quite promising. The Commission members agreed to finalize this test reaction by the next Commission meeting scheduled for July 2001 in Montpellier. Publication of this study is under consideration.

The results of this investigation should demonstrate that well-defined catalytic test reactions using zeolites as catalysts yield comparable results, independent of where and by whom the tests are performed, as long as the same experimental conditions are used.

Reactions that highlight the unique catalytic properties of various modified porous materials, both in the gas and the liquid phase, are under consideration for further investigation.

Michael Stöcker

Odds and Ends

Have you moved?

Like all address lists, that of the IZA needs constant updating. This Newsletter is being sent to all of the addresses we have for our members. If your Newsletter did not arrive or came via an out-of-date address, please let us know.

You can enter your updated data directly via the internet (<http://www.iza-online.org/>) or just send a note to the IZA secretary. If you do not want your data to appear on the internet, just indicate this when you are asked to confirm the data on the web or in your letter. We thank you for helping us keep our address list current.

New IUPAC Recommendations

The IUPAC has recently published some nomenclature recommendations in *Pure and Applied Chemistry* that are very relevant to zeolite science. The paper is entitled "Nomenclature of structural and compositional characteristics of ordered microporous and mesoporous materials

with inorganic hosts" and the authors are L.B. McCusker, F. Liebau and G. Engelhardt.

A system of terms applicable to ordered microporous and mesoporous materials is proposed, and rules for writing a standardized crystal chemical formula for such materials are presented. Because this nomenclature is of particular interest to the zeolite community, the article will also be reproduced in *Microporous and Mesoporous Materials* later this year.

IZA Books

Four IZA books will soon be published:

Atlas of Zeolite Framework Types, 5th ed.

by Ch. Baerlocher, W.M. Meier & D.H. Olson

Collection of Simulated XRD Powder Patterns for Zeolites, 4th ed.

by M.M.J. Treacy & J.B. Higgins

Verified Syntheses of Zeolitic Materials, 2nd ed.

H. Robson, ed. & K.P. Lillerud, XRD Patterns

Introduction to Zeolite Science and Practice, 2nd ed.

H. van Bekkum, E. Flanigen & J.C. Jansen, eds.

The first three will be distributed to participants of the 13th IZC in Montpellier as part of the registration package, and the latter should be available at the conference at a very reasonable price.

National Zeolite Associations

The number of national zeolite associations is growing and several also have their own websites. Contact person and internet addresses that we have for these associations are listed below.

British Zeolite Association

Michael Anderson m.anderson@umist.ac.uk
<http://www.bza.org/>

Bulgarian Zeolite Association

Christo Minchev

Dutch Zeolite Association

Patricia Kooyman P.J.Kooyman@tnw.tudelft.nl
<http://www.kncv.nl/secties/ka/info.html>

French Zeolite Association

Francesco Di Renzo direnzo@cit.enscm.fr
<http://www.gfz.enscm.fr/>

Georgian Zeolite Association

George Tsitsishvili

German Zeolite Association

Peter Behrens

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[http://dechema.de/deutsch/dechema/pages/](http://dechema.de/deutsch/dechema/pages/dechge4.htm)

dechge4.htm

Hungarian Zeolite Association

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Indonesian Zeolite Association

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Italian Zeolite Association

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Japanese Zeolite Association

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Polish Zeolite Association

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Romanian Zeolite Association

Radu Russu

Spanish Zeolite Association

Joaquin Perez-Pariente

Federation of European Zeolite Associations

Carmine Colella colella@unina.it

Northeast Corridor Zeolite Association, USA

The NECZA started off as an informal gathering of zeolite scientists. It provides a forum for throwing out ideas and for graduate students to meet with industrial scientists, both active and semi-retired, with whom they would otherwise not get much of a chance to interact. It has been very successful thanks to the untiring efforts of David Olson and Beatrice Gooding, who got it off the ground and did all of the local arrangements in Philadelphia. The meetings are one-day affairs and this year's will be held in Philadelphia on Friday, December 7.

John B. Parise

Czech Zeolite Group

A new zeolite association was formed in the Czech Republic in 1999. The Czech Zeolite Group consists of scientists currently active in zeolite research at both academic and industrial institutions (approximately 30 PhD/DSc scientists and 20 PhD and diploma students). Further information about the Czech Zeolite Group, including research topics and lecture activities can be found at <http://www.jh-inst.cas.cz/~catsymp/czg.htm>.

The Czech Zeolite and the Czech Catalysis Groups organize an annual Catalytic Symposium on homogeneous and heterogeneous catalysis to create an appropriate platform for PhD students and post-docs to present their research results. In addition, leading scientists from abroad are invited to deliver plenary lectures. More information on this year's symposium can be found at <http://www.jh-inst.cas.cz/~catsymp/>.

Jiri Cejka

Forthcoming Zeolite Conferences

For an extensive list of zeolite conferences, see the listing in the current issue of *Microporous and Mesoporous Materials* or on the IZA website (<http://www.iza-online.org/>). Only zeolite-specific conferences are listed below.

July 1-4, 2001 *Purmerend, The Netherlands*
International Workshop on Zeolitic and Microporous Membranes (IWMM2001)
<http://www.dct.tudelft.nl/ic/iwzmm2001.htm>
Contact: L. Gora, Applied Organic Chemistry & Catalysis, Delft University of Technology, Julianalaan 136, NL-2628 BL Delft, The Netherlands

July 8-13, 2001 *Montpellier, France*
13th International Zeolite Conference
<http://www.izc13.enscm.fr/frizc.html>
Contact: François Fajula, ENSCM, 8, rue Ecole Normale, F-34296 Montpellier Cedex 5, France

September 1-5, 2002 *Taormina, Italy*
Second FEZA Conference
Impact of zeolites and other porous materials on the new technologies at the beginning of the new millennium
<http://home.unical.it/feza2002>
Contact: Flaviano Testa, Dipartimento di Ingegneria Chimica e dei Materiali, Università degli Studi della Calabria, Via Pietro Bucci, I-87030 Rende (CS), Italy

April 25-30, 2004 *Cape Town, South Africa*
14th International Zeolite Conference
Contact: Cyril T. O'Connor, Faculty of Engineering, University of Cape Town, Rondebosch 7701, South Africa