President’s Report

Dear fellow clay scientists,

It is a great pleasure to address you once more, in my capacity of President of AIPEA. The year 2016 promises to be much busy with so many activities in the Clay World, such as 8th Mid-European Clay Conference (Košice, Slovakia), 5th Mediterranean Clay Meeting (Izmir, Turkey), 3rd Asian Clay Conference (Guangzhou, China) among many other technical events listed in this newsletter. It will also be important for the preparation of 16ICC which will be held in Granada (Spain) 2017 (see some information inside this newsletter). Prepare yourselves to participate in all the proposed activities and be alert about the several awards that AIPEA traditionally delivers in these conferences: AIPEA medals, Bradley Award, AIPEA Fellows, Student travel funds and Student best speaker & poster awards (see www.aipea.org).

The presence at EUROCLAY 2015 (Edinburgh, UK, 5-10 July) was very effective and awards for best oral and poster student presentations were delivered jointly with ECGA and CMS.

AIPEA has now 21 Affiliated Societies or groups from worldwide but AIPEA would like to expand its activities to countries without formal clay societies/groups. Unfortunately, we have received no news from some of them in the last years. We would like yet to learn if these societies / groups are still in activity and willing to cooperate with AIPEA in the promotion of Clay Science. Recently, AIPEA has received news that Romanian Group for the Study of Clays and Clay Minerals is no more in activity.

The affiliation of Clay Minerals Society of India (CMSI) to AIPEA is on the way. Our plan for the 2015 was to encourage the formation of new national and regional clay groups and the affiliation of existing active clay groups.

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I also hope that a greater percentage of our affiliated societies can contribute to our next Newsletter. It is important to share with clay scientists around the world information on past and future activities, projects, and I encourage all national society representatives to respond promptly to our Secretary-General’s requests for information. Please take some time to check if your society / group has effectively sent report to AIPEA. If not, I would like to encourage you to contact your representative and reinforce the importance of doing this small gesture of international cooperation.

AIPEA is continuing to publish reports on the Society’s life on Elements. Our affiliation to this very important magazine is a powerful means to communicate with the mineralogical and geochemical community. Please let Dr. Barbosa Alves, our Secretary-General, or me know if you have information that deserves the attention of the scientific societies. We can include it on our six-month report on this Journal.

AIPEA also continues to be an affiliated society to the International Union of Geological Sciences (IUGS) and provides information for the IUSG bulletin, another excellent way to communicate with the scientific societies all around the world and to integrate AIPEA into international geological activities.

With best wishes

Saverio Fiore
The AIPEA Council has been elected during the 15th International Clay Conference at Rio de Janeiro (Brazil), in July 2013. The Officers and Councillors who will work for AIPEA during 2013-2017 are as follows:

**AIPEA Executive Officers for 2013-2017**

Dr. Saverio FIORE, President
Head of the Microminerals, Health & Environment Research Group
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**AIPEA Council Members for 2013-2017**

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Nomenclature Committee, Chair
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University of Illinois at Chicago
Department of Geological Sciences
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Department of Earth and Environmental Sciences, Chicago Illinois 60607-7059 - U.S.A.

Hazardous Minerals Committee, Chair
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Head of the Microminerals, Health & Environment Research Group
Institute of Methodologies for Environmental Analysis
National Research Council of Italy
c/o Department of Earth & Geoenvironmental Sciences
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E-mail: saverio.fiore@cnr.it
The AIPEA Website at www.aipea.org continues to be the most important means of communication for the international community dedicated to clays and clay minerals since its creation in 2007, because it provides extensive information about many aspects of AIPEA and the clay sciences. Therefore it is an important tool to help AIPEA fulfills its main purposes.

AIPEA website was created to provide dynamic and continuous announcement of activities directly related to clay sciences. General information about the organization of AIPEA can also be easily found, such as: mission, purposes, organization, statutes and by-laws, membership, council, publications, newsletters, committees, affiliated societies (name of the person who is responsible for contact with AIPEA), awards and medals (list of winners), historical overview; and links to several National Clay Societies (NCG) websites as well as to that one from the International Union of Geological Sciences (IUGS), which AIPEA is affiliated to. It also discloses permanently all volumes of the AIPEA Newsletter in a searchable way (a few specimens are missing or incomplete and we expect to have contribution to fill in these gaps).

Many relevant technical activities around the world are continuously being announced. It offers a long list of events (conferences, courses, projects, etc.) for 2016 and following years in a complementary page (www.aipea.org/conferences.html). This list can also be found in the traditional way, at the end of this newsletter.

During 2015, a new application has been added to the AIPEA website: payment of the AIPEA annual fee by credit card or PayPal. Members are encouraged to pay quadrennial fees in order to benefit of reducing fees in the participation of events organized by AIPEA, such as International Clay Conferences, or those endorsed by AIPEA, and to be included in the AIPEA member-list, receiving continuously news from the international clay community. This facility can be found at www.aipea.org/membership.html

AIPEA fees for individual members who do not belong to any AIPEA Affiliated Society are:
- Full professional: $30.00 USD (per 4-year).
- Student or retiree: $15.00 USD (per 4-year)

AIPEA fees for corporate sponsors are: 100.00 USD (per 4-year)

Members of AIPEA affiliated societies are also AIPEA members, since their dues are paid by their national or regional clay groups / societies. However to benefit from the same advantages as those of AIPEA individual members, these groups must provide yearly the corresponding payment. Please check with your society/group if the annual payment to AIPEA has been made.

Enrolment of a new member can also be made through the AIPEA website. The candidates should download the membership application form for individuals at www.aipea.org/membership.html. After filling it in, please send it to the AIPEA Treasurer (jperciva@canada.ca) and President (president@aipea.org).
Applications from National or Regional Clay Societies / Groups wishing to become affiliated to AIPEA shall be made to the secretary-general by addressing the e-mail secretary@aipea.org. The candidates must download the “Affiliation Form for National Clay Groups” at www.aipea.org/membership.html and furnish the requested relevant information. The proposal will be submitted to the AIPEA Council and, if approved, the Society shall become affiliated on payment of the appropriate membership fee. The fees are $3.75 USD/year per full member and $2.50 USD/year for each student.

We recommend everybody to peruse the available information at the AIPEA website and become aware of the several events dealing with clays and clay materials and their applications that will take place all around the world.

Finally, we encourage all AIPEA members and sympathizers to undertake a systematic perusal of the contents of the AIPEA website in order to become updated with the many opportunities that are available around the world. If errors are noticed, please inform us immediately so that we can make the proper corrections. Please remain in contact with us by sending news of relevant activities and events to the AIPEA webmaster (webmaster@aipea.org) and to the AIPEA Secretary-General Dr. Daisy Barbosa Alves (secretary@aipea.org).

Daisy Barbosa Alves
January / 2016
One of the principal aims of AIPEA is to stimulate and excite excellent young clay scientists. Under ideal circumstances, this would be achieved by face to face interaction between these young scientists and more established clay scientists during the International Clay Conferences (ICC), which take place every four years.

The two last ICCs included the AIPEA School for Young Scientists (ASYS) in their program. These short courses were dedicated to topics of clay sciences which are of worldwide interest. Unfortunately, it is not always possible for every young clay scientist to attend this conference and/or to the ASYS shortcourse. Consequently, in 2013 AIPEA started its Educational Series (AES) by publishing the material presented during ASYS 2009. By now, this Series has already two volumes linked to the ASYS shortcourses.

The first edition of AES Volume 1 has already been sold out and an electronic copy of it is now available for free download. Just send a request to info@aipea.org and we will provide a link for downloading the file.

In 2015, the AES Volume 2 has bee delivered to the public and is now available for purchase. More information follows.

Magnesian Clays
Characterization, Origin & Applications
AIPEA Educational Series - Publication No.2
Editors: Manuel Pozo & Emilio Galán

Lectures held at the:
2nd AIPEA School for Young Scientists
Rio de Janeiro, Brazil, July 6-7th, 2013
Digilabs Pub., Bari, Italy - pp. 380 + XII
ISSN: 2283-687X

The book is an overview and update on the main issues related to magnesian clays. It is accessible to students, providing the basics and the latest information on the several topics and including key literature references.

Contents
1. Introduction to Mg-rich clay minerals: Structure and composition (Stephen Guggenheim)
2. Methodology for the identification and characterization of magnesian clays (Emilio Galán and Patricia Aparicio)
3. Geology of magnesian clays in sedimentary and non-sedimentary environments (José Pedro Calvo and Manuel Pozo)
4. Magnesian clay deposits: Mineralogy and origin (Manuel Pozo and Emilio Galán)
5. Madrid Basin (Spain): a natural lab for the formation and evolution of magnesian clay minerals (Manuel Pozo and José Pedro Calvo)
6. Geochemical pathways to Mg-silicate formation (Nicholas Tosca)
7. Properties and applications of magnesian clays (Julio Santarén)

This book, not in the sale, was financed by Associazione Italiana per lo Studio delle Argille (AISA). AISA distributes personal e-copies and hard copies in return to an economic support to the Association:
e-copy: €5.00
Print copy: €20.00
Shipping costs: Italy: €12.00 (tracking). Other Countries: €15.00 (no tracking) or €25.00 (tracking). The package may contain up to 10 copies.

You can donate by credit card (use the form at www.aipea.org/publications.html) or wire transfer:
Bank name: Fineco Bank
Account name: Associazione Italiana per lo Studio delle Argille - onlus
IBAN: IT81M0301503200000003445310
Swift: UNCRITMM
Details of payment: Donation for AES2
Note: Payment must include all the applicable bank wire fees.

Interstratified Clay Minerals
Origin, Characterization & Geochemical Significance
AIPEA Educational Series - Publication No.1
Editors:
Saverio Fiore, Javier Cuadros & F. Javier Huertas

Lectures held at the:
1st AIPEA School for Young Scientists
University of Bari, Italy, June 12-13, 2009
Digilabs Pub., Bari, Italy - pp. 175
ISSN: 2283-687X

Hard copy sold out (copies printed on demand: € 40.00, international shipping included)

E-copy free of charge - mail info@aipea.org

The book is an overview and update on the main issues related to interstratified (or mixed-layer) clay minerals, with a clear educational scope. It is accessible to students, providing the basics and the latest information on the several topics and including key literature references.

Contents
1. Introduction to Mixed-Layer Clay Minerals (J. Cuadros, S. Fiore and E.J. Huertas)
2. Crystal-Chemistry of Mixed-Layer Clays (J. Cuadros)
5. Identification and Characterization with Microscopic Methods (F. Nieto and X. Arroyo)

Saverio Fiore
January / 2016
16th International Clay Conference
July 16 - 21, 2017 / Granada / Spain

CONFERENCE TOPICS

- MINERALOGY
- GEOLOGY AND GEOCHEMISTRY
- ENVIRONMENT AND SOILS
- CLAYS, ORGANIC MOLECULES AND ORGANISMS
- CERAMICS, ZEOLITES
- NANOMATERIALS AND CLAY TECHNOLOGY
- MISCELLANEOUS

www.16icc.org
info@16icc.org
AIPEA Listserves

Since 2014, the Clay and Clay Minerals International Community has been benefited by dynamic announcements and warnings through the two AIPEA listserves. They are intended to make available quickly information on all areas of clay sciences.

The first AIPEA listserv (members@aipea.org) contains the e-mail address of all AIPEA members and from those of its Affiliated Societies. These addresses are yearly updated. All members are automatically included in the AIPEA members’ listserv.

If you are a member of any AIPEA affiliated society and are not receiving messages, please check whether your NGC has sent an updated list of e-mails to the AIPEA webmaster. If your National Group is not yet associated to AIPEA encourage those in charge to make contact with the AIPEA President (president@aipea.org) or Secretary (secretary@aipea.org) for information. Alternatively, please also check the SPAM box of the browser you usually use to check e-mails and see if AIPEA messages have been redirected to it.

Besides, AIPEA organized as well a “talk list” (talk@aipea.org) for people interested in Clay Science ‘latu sensu’, but who are not yet engaged in NCGs or AIPEA. Those interested in participating in the AIPEA talk should send a message to talk.subscribe@aipea.org. Subscription to the list is completely free and you may remove your name from the list at any time just by sending a message to talk.unsubscribe@aipea.org.

We take this opportunity to remind all AIPEA members about the importance of paying their membership fee on time. If it is one year’s dues, the member will be in good standing for one year. However we encourage everybody to pay for the period of 4-years, which will make easier participation in all AIPEA activities longer. According to the AIPEA statute and by-laws, if the membership fee is not paid, the membership may be cancelled and excluded from the AIPEA listserv.

Besides, if you want to share with AIPEA members information about any topic related to clay and clay minerals please send a synthetic message to the AIPEA webmaster (webmaster@aipea.org) and/or to the AIPEA Secretary-General Dr. Daisy Barbosa Alves (secretary@aipea.org).

Daisy Barbosa Alves
January / 2016
The latest AIPEA Ordinary Council Meeting took place on July 5th, just before the EUROCLAY 2015 meeting, at Edinburgh (UK). It was guided by Saverio Fiore, AIPEA president, with the participation of Christopher Breen (past president), F. Javier Huertas (councillor), Alberto Lopez Galindo (representative of the 16th ICC), Stephen Guggenheim (nomenclature committee), and Daisy Barbosa Alves (secretary).

The following topics were discussed:

• Approval of the minutes of the AIPEA Council Meeting held in Rio de Janeiro on July 7th, 2013; and of the Agenda proposed for this meeting.

• The President’s report included the announcement of the availability of AES volume II, which can be bought through AIPEA site. The AES volume I (e-copy) has now free distribution by asking permission for downloading the file via the AIPEA website. The three AIPEA list servers (‘member’, ‘talk’ and ‘council’) are working normally after a period of probation. SF mentioned his intention of including some improvements in the AIPEA website, making it more interactive with the public. As usual, the reports about the activities of AIPEA during 2015 were sent to Elements and to IUGS. ECGA subpage at the AIPEA website has not yet been implemented but it is expected to be soon.

• Expected main activities of AIPEA members during EUROCLAY 2015 were: alternation in attending the AIPEA desk, located in the exhibition area; and participation in the process of students’ evaluation. It included a discussion on the best strategy for evaluation of the student best oral and poster presentations (81 candidates). It has been proposed that this task should be shared with both CMS participants and the organizer of EUROCLAY. All AIPEA councillors have been invited to contribute in the process.

• Partial financial budget of AIPEA for 2015 was sent by treasurer who could not be present. A few strategies for improvement of the interaction between AIPEA treasure and AIPEA affiliated societies have been discussed. The expectations are that all affiliated societies pay their fees to AIPEA. SF announced that by now, individual members can pay their fees through PayPal system via AIPEA site.

• Secretary’s report included remarks on the good acceptance of the new layout of AIPEA Newsletter. The difficulties to gather material from Affiliated Societies have also been mentioned. Few administrative problems have been discussed too.

• Evaluation of application of candidates to become AIPEA affiliated society (Haiti and India). The discussion was not conclusive and complementary material has been asked to the candidates.

• News from the 16ICC was brought by the chair of this promising event. Information is available at www.16icc.org (see also inside this newsletter).

• Proposed activities of AIPEA during 35IGC at Cape Town (South Africa) have been approved, with emphasis on the participation of the Thematic Session entitled “Clays and Clay Minerals” to be guided by Dr. Frank Wagner.

• Currently, AIPEA Council uses e-mails to discuss matters of interest. SF proposed periodical Council Meetings provided via teleconference and/or via Skype connections and this has been approved. A test will be done as soon as possible.

• End of the AIPEA Ordinary Council Meeting.

The next AIPEA Council Meeting and the AIPEA General Assembly will take place in Granada (Spain), during the 16th International Clay Conference (July 16-21, 2017).

Daisy Barbosa Alves
July / 2015
AIPEA gratefully received a financial contribution from the 15th ICC and these funds will help support our efforts for student travel grants and awards for the upcoming 16th ICC in Spain (July 2017). Thus, we continue to be in a positive financial situation due to the support of several National Clay Groups. We contributed to Elements Magazine which ensures that we have access to promoting AIPEA to the larger mineralogical community.

National Clay Groups
AIPEA executives wish to acknowledge the continuing financial support from clay societies of Croatia, Germany, France, Slovakia, Spain and USA/Canada. The funds provided by these societies enabled reduced registration fees for their members at upcoming ICC meetings and support for student oral and poster awards at both Euroclay and ICC meetings, travel grants for awardees and students (as noted above).

Website Support
The website is supported by AIPEA. We continue to acknowledge the enormous contributions of Dr. Saverio Fiore and the Italian Clay Group for keeping it up to date.

Financial Statement
The Balance Sheet and Profits & Loss statements are provided for 2015. Elements Magazine support is under “Books etc.”.

By Jeanne Percival
February / 2016
REPORTING FORM FOR IUGS AFFILIATED ORGANIZATIONS 2015

Name of Affiliated Organization:
Association Internationale pour l’Etude des Argiles – AIPEA

Overall objectives:
AIPEA is an umbrella organisation for the world’s national clay societies. The aim of AIPEA is to promote international co-operation in clay research and technology. To fulfill this purpose its activities shall include the organization of:
• Meetings - such as International Clay Conferences;
• Field excursions;
• Visits to centers of clay research and technology;
• Publication of issues on clay research and technology;
• Publication of a periodical Newsletter to inform members of activities concerning clay researches.

Relate goals to overall IUGS scientific objectives:
• Organize and/or collaborate in the organization of conferences of clay worldwide interest;
• Stimulation of excellency in young clay scientists;
• Rewarding active clay scientists with a brilliant career in clay research;
• Stimulation of communication along clay researchers and technologists.

Structure and organization:
AIPEA is administered by a council formed by: the President, the Vice-President, the Secretary General, the Treasurer (Officers), the immediate Past-President, six Ordinary Councillors, representatives of the Organizing Committee of next International Clay Conference, and the Chairs of the Nomenclature Committee, Teaching Committee and Hazardous Minerals Committee.

Updated list with the names of members of AIPEA Council for 2013-2017 includes:
Dr. Saverio FIORE, President - president@aipea.org (or saverio.fiore@cnr.it)
Prof. Joseph W. STUCKI, Vice-President - jstucki@illinois.edu
Dr. Daisy Barbosa ALVES, Secretary-General - secretary@aipea.org (or daisy@petrobras.com.br)
Dr. Jeanne B. PERCIVAL, Treasurer - treasurer@aipea.org (or jeanne.percival@canada.ca)
Prof. Christopher BREEN, Past President - c.breen@shu.ac.uk
Dr. F. Javier HUERTAS (Councillor, 2nd term)
Dr. Balwant SINGH (Councillor, 2nd term)
Prof. Helge STANJEK (Councillor, 2nd term)
Dr. Georgios CHRISTIDIS (Councillor, 1st term)
Dr. Victoria KRUPSKAYA (Councillor, 1st term)
Dr. Makoto OGAWA (Councillor, 1st term)
Dr. Alberto LOPEZ GALINDO (Representative of the 16th ICC)
Dr. Sabine PETIT, Chair Teaching committee
Prof. Stephen GUGGENHEIM, Chair Nomenclature committee
Dr. Saverio FIORE, Chair Hazardous Minerals committee

Interaction with other International organizations and projects:
AIPEA has 23 affiliated societies / groups from around the world: Algerian Clay Group, Australian Clay Minerals Group, (British & Irish) Clay Minerals Group of The

AIPEA has three committees working on key themes of international interest: Nomenclature, Teaching, and Hazardous Minerals.

AIPEA co-operates in international programs for excellence in Clay Science, such as the International Master in Advanced Clay Science – IMACS, jointly delivered by: the University of Poitiers (France); the Technical University of Crete (Chania - Greece); the University of Aveiro (Portugal); the University of Ottawa (Canada), and the Federal University of Rio Grande do Sul (Porto Alegre – Brazil).

Chief products:
The International Clay Conference (ICC), which takes place every four years, is the AIPEA main activity. The 16th edition of this event will take place in Granada (Spain), from July 16-21st, 2017.

Besides, AIPEA continues to further improve its website as a source of information and support for the worldwide clay community (www.aipea.org).

AIPEA also produces an annual Newsletter which circulates among its members via e-mail and is also made accessible via the AIPEA Website.

AIPEA has published two monographs of the book series AIPEA Educational Series (AES; ISSN: 2283-687):

- Interstratified clay minerals. Origin, characterization & geochemical significance;
- Magnesian clays: Characterization, origin and applications.

Electronic copy of the 1st AES volume, 2nd edition, is available for free download. Information can be found at www.aipea.org

Chief accomplishments 2015 and plans for 2016:
AIPEA is being organized to adapt itself for the use of new media with the purpose of keeping better communication with clay scientists all over the world. Last year two AIPEA list serves have been set up. AIPEA will continue to produce its Annual Newsletter in digital format (e-ISSN: 2421-0757), available at the Association website.

Specify how any IUGS Allocation for 2015 was used:
AIPEA is financially independent and receives income from individual members and affiliated societies and from registrations to the International Clay Conferences.

Budget request with justification for 2016 (only applicable to low income groups):
None.

Does your website have a link to IUGS?
Yes.

Name, address and e-mail of person preparing this report:
Dr. Daisy BARBOSA ALVES, Secretary General
Petroleo Brasileiro S.A. - Research Center (CENPES)
Rua Horacio Macedo 950, Cidade Universitaria Ilha do Fundao - Rio de Janeiro - RJ - CEP: 21941-915 Brazil

By Daisy Barbosa Alves
November/2015
In July 2015, the EUROCLAY 2015 meeting was held in Edinburgh, Scotland. This event ran over seven days in early July and included five field trips, a workshop, a short-course, numerous social events, including a superb banquet, five parallel sessions and two poster sessions. More than 500 delegates, including ~130 students, attended.

The programme consisted of the following 16 sessions:

• Bentonites: linking clay science with technology
• Industry perspectives in clay and fine-particle science
• Developments and applications of quantitative analysis to clay-bearing materials, incorporating ‘The Reynolds Cup School’
• Asian Clay Minerals Group Research in Progress (II) (part of Euroclay2015)
• Clay and fine particle-based materials for environmental technologies and clean up
• Beyond smectite-based nanocomposites
• Bioreactive clay minerals: impacts on environmental and human health
• Structural characterization of lamellar compounds
• The many faces of chlorite
• From microscopic pore structures to transport properties in shales (workshop follow-on session)
• Clay minerals in the oil and gas industry
• Computational chemistry studies of clay minerals - bridging length and time-scales
• Natural zeolites – environmental, biomedical and industrial applications
• Clays in the Critical Zone: soils, weathering and elemental cycling
• Clay mineral indices in palaeo-geothermal studies, hydrocarbon and geothermal prospection - third Frey-Kübler symposium
• Halloysite: a unique, diverse and widely useful natural nanomaterial.

The pre-conference workshop was:

• **Filling the gaps – from microscopic pore structures to transport properties in shales** and was organised by Reiner Dohrmann, Chris Greenwell and Thorsten Schaefer under the auspices of the OECD Nuclear Energy Agency (NEA) “Clay Club” in association with EUROCLAY2015, The Clay Minerals Society and The Geological Society.

The mid-conference short-course was:

• **The Chemistry of Clay-Polymer Reactions** and was delivered by Benny K.G. Theng, Landcare Research, Palmerston North, New Zealand

The field trips were:

• The pre-conference **Strontian and Isle of Mull zeolite** excursion ran from Monday 29th June to Saturday the 4th of July and was led by Linda Campbell, Alan Dyer, and Craig Williams (with co-leader One-ta Wilson).

• **Dob’s Linn and Grey Mare’s Tail** – Southern Uplands, led by Simon Kemp (with co-leaders Hugh Barron and Maxine Akhurst).

• The **Devonian-Carboniferous** upland-acid coal swamp transition 325–350 million years ago exposed in the sea cliffs of S.E. Scotland, led by Christopher Jeans, Jennifer Huggett, Elena Kuznetsova, and David Wray (with co-leader Euan Clarkson).
• Soils and geological time along **The James Hutton trail**, led by Jeff Wilson (with co-leaders Allan Lilly and Helen Pendlowski).

• Additionally, a 2–3 hour walking trip around the spectacular city centre Volcano Geology of Edinburgh was an option taken up by >150 delegates on the Wednesday (Arthur’s Seat), led by Derek Bain (with co-leader Stuart Munro and numerous other volunteers).

For a social side to the conference, delegates were offered the option of tasting some Scottish Whisky. All delegates also enjoyed the Conference Dinner and Céilidh which took place at ‘Our Dynamic Earth’.

Accompanying persons

• Delegates’ families and partners were also catered for with a number of social events:

• Trip to Stirling Castle. Situated prominently above Stirling on a Carboniferous sill crag 45 miles from Edinburgh, Stirling Castle is one of the largest and most important castles, both historically and architecturally in Scotland. A place of power, beauty and history, it was one of the favoured residences of Scottish Kings and Queens.

• Visit to Rosslyn Chapel at Roslin, Midlothian. Dating back to the mid-15th century, this fascinating chapel with its many intricate stone carvings has, since the late 1980s, featured in speculative theories concerning its supposed connection with the Knights Templar, Freemasonry and the Holy Grail as featured in the book The Da Vinci Code and film of the same name.

• Visit to the Royal Yacht Britannia now berthed at Ocean Terminal, Edinburgh. This large oceanic liner was used by Britain’s Royal Family for state visits around the world from 1954 to 1997.

Back to the science…

A novel part of the event was that the editorial boards for Clays and Clay Minerals met (over dinner) to discuss matters of mutual interest. We also took the opportunity to discuss future marketing strategies for our journals.

The Awards Ceremony saw us celebrate the contribution to the conference made by the many guest speakers. Awards were made on behalf of the Clay Minerals Society and the Mineralogical Society.
Awards for the best student poster and best student oral presentation were made jointly with the European Clay Groups Association (ECGA) and Association Internationale pour l’Etude des Argiles (AIPEA). The winners were as follows:

• The best student oral presentations were by Bhabananda Biswas, Mathias H. Köster and Sayako Inoue.

• The best student poster presentations were by Cristina Fernández-Barranco, Katherine Rothwell and Darja Komar.

By Kevin Murphy and Steve Hillier
December / 2015

AIPEA (and other) student award winners during the EUROCLAY 2015 conference (photo courtesy by Kevin Murph and Steve Hillier).

Steve Hillier (left) meeting organizer, with W. Crawford Elliott, President, Clay Minerals Society (photo courtesy by Kevin Murph and Steve Hillier).
The XVI International Clay Conference (16 ICC), which takes place every four years, will be held in Granada, Spain, from 16 to 21 of July 2017. Information is available at www.16icc.org. The logotype for the Conference brings together the environments in which clay minerals are found: “Clays, from the oceans to space”.

Conference venue
The conference venue is the Science Park (Parque de las Ciencias), an interactive museum over 70,000 m² in size. Located a few minutes on foot from the historic city centre of Granada, it has one of the most varied offers for cultural and scientific leisure in Europe, and includes an Auditorium, 5 modern and well equipped halls, extensive space for installation of posters, meeting rooms, and broad areas for meetings and exchanges among participants. Besides the restaurant inside the Conference Venue, there are many other restaurants and bars in the surrounding area.

The Conference is planned to cover five days (four sessions per day and a selection of one-day excursion). Emphasis will be on a maximum of parallel sessions to cover the received proposals (until now around 50) into the following thematic areas:
• Mineralogy,
• Geology and Geochemistry,
• Environment and Soils,
• Interaction between clays and organic molecules and organisms,
• Ceramics,
• Zeolites,
• Nanomaterials and Clay technology, and
• Miscellaneous.

Three one-day excursions are being arranged:
• Bentonite deposits of the Cabo de Gata (Almeria). Dr. F. Javier Huertas (Andalusian Institute of Earth Sciences, CSIC-UGR).
• Guadix-Baza Basin. Dr. César Viseras Alarcón (Stratigraphy and Paleontology Dept, University of Granada).
• Alpujarra. Dr. Juan Ignacio Soto Hermoso (Andalusian Institute of Earth Sciences, CSIC-UGR).

The AIPEA School for Young Scientist (ASYS) will be held on 15-16th July 2017 under the supervision of Dr. Claro Ignacio Sainz Díaz (Andalusian Institute of Earth Sciences, CSIC-UGR), with the subject: “Computational modelling in clay mineralogy”.

About the city of Granada
There are few cities in the world with a history as far-reaching, as diverse, and so well reflected in its streets and monuments. As capital of the last Muslim kingdom of the Iberian Peninsula, the city chosen by the Catholic Monarchs to be their final resting place and the temporary residence of the Emperor Carlos V, Granada has enriched its cultural heritage throughout the years, and has become one of the most attractive and magnificent cities in Spain. Its community of museums, imposing monuments, and districts full of local color means that it is impossible to take in everything that Granada has to offer in just one day.

How to reach Granada
Granada is located in the heart of Andalusia (Spain), at the foot of the Sierra Nevada and quite close to the Mediterranean Sea. It is easily accessible by plane, bus, train or road (see web page for details).
**Hotel accommodation**
From hotels with more services to simple and comfortable rooms, Granada has numerous and varied accommodation adapted to all needs (more than 200 hotels and hostals, more than 13,000 hotel rooms). Many hotels are located within easy walking distance to the venue location.

**Dates to remember**
- 15 October 2015 Call for Session opens
- 31 December 2015 Call for Sessions closes
- 1 November 2016 Abstracts submission opens
- 31 March 2016 List of sessions
- 15 February 2017 Abstracts submission closes
- 15 March 2017 Abstract acceptance notification
- 15 March 2017 Definite list of sessions
- 1 April 2017 End of Early registration
- 15 July 2017 ASYS starts
- 17 July 2017 16 ICC opening ceremony

**Organizers**
Spanish Clay Society (SEA)
Contact: chair@16icc.org and/or secretariat@16icc.org

Alberto López Galindo
January / 2016
This session of the AIPEA Newsletter brings together the reports about the many activities developed by its Affiliated Societies/Groups up to December 2015. It represents an effort to coordinate communication among all National (Regional) Clay Group members and the individual members of AIPEA. It aims to become a key vehicle for communication of all clay scientists.

Unfortunately, AIPEA has received information that the Romanian Group for the Study of Clays and Clay Minerals is no longer in activity. Therefore, AIPEA gathers by now twenty-one affiliated societies in activity around the world.

This issue of AIPEA Newsletter has received reports from many affiliated societies / groups. Some countries do not yet have formal clay societies and, in these cases, AIPEA relies on the collaboration of liaison-officers, who gracefully accepted this invitation. We are very grateful to the twenty-one (21) collaborators who answered our call for cooperation.

Still we would like to remind that reports from some traditional affiliated societies are still missing and to encourage their representatives to publish their reports next year.

The readers will notice that the content of each report are particular of each society, bringing together their national flavor. Some reports included a few photos and we had to make a selection of them in order to keep the size of this edition easy to be accessed by digital means. All has been done with much care and interest. So we wish you a pleasant reading.

Daisy Barbosa Alves
AIPEA Secretary-General

ALGERIA
ALGERIAN CLAY GROUP

The main activities of Algerian Clay Group for 2015 were diversified.

National and International Activity and Cooperation
Actually, the Group, in association with several industries and university, has identified targets and work:

• With bentonite industry, the issue is rising the drilling bentonite production to 12000 t/y and the bleaching earth to 20000 t/y.
• With USTHB University, initiate in some master classes, clays sciences teaching.
• Preparing a national workshop on clays application in oil and gas activities.
• Studying bleaching earth and bentonite use in depollution water within ERANETMED project involving many countries.
• Working on the role of clays in shales gas because of the importance of this domain now days in Algeria.

Algerian Clay Group Members
Honorary Member
Mrs Faiza Bergaya, CRMD Orleans France
Mrs Kheira Boumendjel, Sonatrach/Division Laboratoires Boumerdes-Algeria
Mr Mohameds Djoua, Sonatrach/Drilling Division, Hydra Algeria

Council Members
President: Prof. A. Bengueddache (Oran, University)
General Secretary: Dr. M. Khodja (Sonatrach/Upstream Activity-Technology and Development Division, Boumerdès)
Vice President: Dr. H. Chemani (Boumerdès University)
Vice President: Dr. B. Touahri (Bental/ENOF Algiers)
Vice President: Mr. M. Belkadi (Sonatrach/ Sonatrach/ Upstream Activity-Technology and Development Division, Boumerdès)
General secretary assistant: Prof. A. Bakhti (Mostaganem
Looking forward to your collaboration,

Mohamed Khodja
January / 2015

AUSTRALIA
AUSTRALIAN CLAY MINERALS SOCIETY
Report not available.

BRAZIL
BRAZILIAN CLAY GROUP
The Brazilian Clay Group (GBA), a branch of the Brazilian Geochemical Society (SBGq), began its activities around 2008, gathering clay scientists interested in clays and clay minerals.

Technical Meetings
Brazilian clay scientists presented the results of their researches in three main national events: 1st Workshop on Applied Clays, 59th Brazilian Congress on Ceramics and 13th Brazilian Congress on Polymers.

a. The 1st Workshop on Applied Clays (1RAA) took place at Natal (RN) on April 15-17th, 2015. The chairs were S.B.C. Pergher and A.P.M. Alves from the Federal University of Rio Grande do Norte. The program included 12 invited lectures, 4 technical sessions (oral or poster presentations) and 1 round-table. The invited-lectures follow:

- Toward advanced applications using clay-based nanomaterials – Dr. E. Ruiz-Hitzky.
- Clay minerals and drug delivery - Dr. C.V. Iborra.
- Inorganic-organic hybrid materials derived from clay minerals applied as adsorbents and catalyster - Dr. M.G. Fonseca (in Portuguese).
- The use of organic-inorganic interfaces in the preparation of clay based nanoarchitectures - Dr. P. Aranda.
- Bioactive intercalated species in laminated double-layer hydroxides: preparation, characterization and some results of biological essays - Dr. V.L. Constantino (in Portuguese).
- Clays and clay minerals from the Pará and the Maranhão States: new occurrences and application studies - Dr. R.S. Angélica (in Portuguese).
- Textural characterization of nanoporous clays by vapour adsorption - Dr. K. Sapag (in Spanish).

The papers from this event will be printed in a special number of Materials Technology: Advanced Biomaterial.

b. The 59th Brazilian Congress on Ceramics, organized by the Brazilian Society of Ceramics (ABCeram), took place at Prodigy Beach Resort & Conventions Aracaju, Barra dos Coqueiros (SE) from May 17 to 20th, 2015 (www.abceram.org.br). There were a total of 365 participants from 21 Brazilian states, besides participants from other countries (Argentina, Spain, France, Uruguay and USA). A fair was organized with 7 companies which sponsored the event.

There were a total of 475 technical papers (43 orals and 432 posters), 14 conferences, 2 plenary lectures and 2 round tables. Three shortcourses, one workshop and a technical visit also took place.

The following papers based on clay topics have been presented:

- Almeida, E.P. et al. - Studies of new clay deposits in the Cubati County (PB), for use as ceramic raw material (in Portuguese).
- Andrade, C.G.B. et al. - Modified Brazilian bentonite in the manufacture of products of high aggregated values (in Portuguese).
- Barbosa, A.S. et al. - Red clay used as adsorbent for the removal of dye reagents (in Portuguese).
- Brito, B.M.A. et al. - Rheological study of polycationic clays from the Paraíba State after addition of sodium carbonate and magnesium oxide (in Portuguese).
- Brito, E.M. et al. - Chemical and microstructural characterization of clays used in the red ceramic industry of the Piauí State (in Portuguese).
• Busch, P.F. et al. - Evaluation of the incorporation of glass residues into white kaolinitic clay for red ceramic (in Portuguese).
• Carvalho, C.M. et al. - Characterization of clay from a pottery at Santa Rita (PB) to be used in barrier blocks (in Portuguese).
• Cavalcanti, R.C. et al. - Properties and characteristics of bentonites for medical and cosmetic applications: a review (in Portuguese).
• Costa, D.S. et al. - Kaolin and jute fibers laminated composites: mechanical, thermal and morphological characteristics (in Portuguese).
• Cunha, R.A. et al. - Chemical-mineralogical characterization of clays from the Cedro do Abaeté (MG) seeking application in the production of ceramic coverings (in Portuguese).
• Falcão, G.A. et al. - Study of the techniques used for particle size analysis of clays for red ceramic (in Portuguese).
• Falcão, G.A. et al. - Evaluation of the results of the characterization of clays from PB and RN States (in Portuguese).
• Feitosa, A.O. et al. - Analysis of colour and technological properties of structural ceramics developed with kaolinitic and smectitic clays submitted to different burn rates (in Portuguese).
• Fermino, D.M. et al. - Mechanical behavior of the hybrid polypropylene nanocomposite formed by the addiction of smectite clay and cellulose as reinforcing agents (in Portuguese).
• Morais, M.R.C. et al. - Study of the influence of the Si/Al molar ratio on the process of hydrothermal synthesis of NAP zeolite, from processed kaolin (in Portuguese).
• Mota, J.D. et al. - Study of cadmium ions adsorption by using Brasgel and Chocolate B natural clays (in Portuguese).
• Nascimento, R.C.A.M. et al. - Evaluation of the filtration properties of clayey suspensions under different thermal conditions (in Portuguese).
• Nunes, F.M. et al. - Descriptive diagnosis of the particle size distribution for a clay incorporated with industrial residues (in Portuguese).
• Nunes, F.M. et al. - Evaluation of the physical parameters of a clay incorporated with ashes of industrial residues by variance analysis (in Portuguese).
• Oliveira, H.A. et al. - Study of the uses of expanded clay as alternative for substitution of coarse aggregates in the production of precast pieces of non-structural concretes in the Sergipe state (in Portuguese).
• Oliveira, V.M.S. et al. - A study of the technological and rheological properties of clays of different geological origins from Rio Grande do Sul (in Portuguese).
• Reis, E.P. & Gomes, U.U. - Study of the technological properties of red clays from Southern Bahia (in Portuguese).
• Rodrigues, E.C. et al. - Production of NAA zeolite from kaolin in a stirred system at semi-pilot scale (in Portuguese).
• Santos, E.A. & Ferreira, A.M. - Functionalisation and characterization of halloysite clay mineral for environmental applications (in Portuguese).
• Santos, T.A. et al. - Viability of type A and faujasite zeolites syntheses from Pará kaolinitic clays seeking adsorptive applications (in Portuguese).
• Silva, A.L. et al. - Characterization of clays from Pedra Lavrada (PB) for application as raw material in ceramics (in Portuguese).
• Silva, D.L. & Ferreira, H.S. - Dispersion and organo-
philization of bentonitic clays: a revision on the influence of process variables (in Portuguese).

- Silva, I.A. et al. - Comparative rheological study of smectitic clays to be used in water-based drilling fluids (in Portuguese).
- Silva, P.F. et al. - Mineralogical phases quantification of ceramic raw materials by the UFSC method (in Portuguese).
- Silva, V.C. et al. - Organophilization process and characterization of palygorskite (atapulgite) clay (in Portuguese).

The following papers based on clay topics have been presented (extended abstract at www.cbpol.com.br/programa/):

- Belo, J.C.F. et al. - Effect of internal coating with LDPE/organoclay film on the permeability of sintered tubular UHMWPE/HDPE membranes (in Portuguese).
- Carastan, D.J. et al. - Mechanical properties of poly-styrene -SEBS blends with the addition of nanoclay (in Portuguese).
- Cavalcante, M. S. et al. - Utilization of a Mg-montmorillonite as dispersed phase in poly (methyl methacrylate) (in Portuguese).
- Cavalcanti, S.N. et al. - Effect of the organoclay content in modification the impact on mechanical properties of bionanocomposites poly(lactic acid)-PLA (in Portuguese).
- Contri, G. et al. - Preparation of Epoxy resin/Montmorillonite-Polypyrrole nanocomposites: evaluation of physical - chemical properties (in Portuguese).
- Dalmolin, C.D. et al. - Electrical properties of conductor charges produced from polyaniline deposited over natural fibers and nanoclays (in Portuguese).
- Gomes, M. et al. - Processing and characterization of polyethylene reinforced with vegetal fiber residues and Brazilian bentonite (in Portuguese).
- Grande, R. & Pessan, L.A. - Preferential location and compatibilization effect of organoclay in PC/SAN
blends (in Portuguese).

- Komatsu, L.G.H. et al. - Polypropylene/montmorillonite clay nanocomposites: investigation of environmental effects on photo-oxidation (in Portuguese).
- Menezes, L.R. & Silva, E.O. - Effect of montmorillonite clays on the mechanical and optical properties of dental adhesives (in Portuguese).
- Morita, R.Y. et al. - Poly(ethylene-co-vinyl acetate)/organoclay films according to application at multilayer packing (in Portuguese).
- Ramoa, S.D.A.S. et al. - Preparation of nanostructured conductive additives based on montmorillonite and polypyrrole: Effect of surfactant on structure and electrical properties (in Portuguese).
- Rosas, A.L.T. et al. - Thermal properties and proton conductivity of membranes based on sulphonated poly(ether ketone)/acid montmorillonite clay (in Portuguese).
- Silva, A.L.S. & Jacobi, M.M. - Vulcanized thermoplastics based on polyamide and nitrile rubber with clays as filler (in Portuguese).
- Silva Neto, J.E. et al. - Assessment on use of erucamide in thermal properties and melt flow index of PP/organophilic clay systems (in Portuguese).
- Soares, J.A. et al. - Incorporation of magnetic particles into nanoclay and their influence on the properties of biodegradable PHB polymer nanocomposites (in Portuguese).
- Viana, J.D. et al. - Influence of the mixing sequence on mechanical properties of PLA/PBAT/organophilic clay bionanocomposites (in Portuguese).

**Publication**

Some Brazilian journals/reviews have published papers on researches with clay and clay minerals which can be retrieved for free at www.scielo.br.

**Cerâmica** (on-line version ISSN 1678-4553 - www.scielo.br/ce)


**Materials Research** (on-line version ISSN 1980-5373 - www.scielo.br)

- Nascimento, A.R. et al. - Effect of the acid treatment of montmorillonite clay in the oleic acid esterification reaction. Materials Research, São Carlos, 18(2):283-
287, 2015 (in English).


- Reis, A.S. et al. - Analysis of dimension stone waste addition to the clayey mass used in roof tile production. Materials Research, São Carlos, 18 (suppl. 2): 63-60, 2015 (in English).

Brazilian Journal of Chemical Engineering (on-line version ISSN 0104-6632 - www.scielo.br)


Brazilian Journal of Geology (un-line version ISSN 2317-4692 - www.scielo.br)


Latin American Journal of Solids and Structures (on-line version ISSN 1679-7825- www.scielo.br)


Polímeros (on-line version ISSN 1678-5169- www.scielo.br)


Invitation

We would like to invite all clay scientists to participate both in the 60th Brazilian Congress on Ceramics that will take place at Águas de Lindóia (SP) on May 15-18th, 2016; and in the 2nd Workshop on applied Clays to be held in Rio de Janeiro from March 31st to April 1st, 2016.

By Daisy Barbosa Alves
January / 2016

CHINA

CHINESE CLAY MINERALS GROUP

Prof Chun Hui ZHOU has sent a report about the activities developed during the visit of Dr. Saverio Fiore, president of AIPEA, to the Chinese Clay Group (AMSC) in Hangzhou, China.

From Monday, 23rd to Friday 27th November 2015, Prof. Saverio FIORE paid a visit to one of the leading clay mineral research groups in China: the Research Group for Advanced (Clay) Materials & Sustainable Catalysis (AMSC) at Zhejiang University of Technology (ZJUT), Hangzhou, China. During this visit, Prof. Fiore gave a lecture on ‘Synthesis of zeolites from fly ash’ at a Seminar at ZJUT, which was attended by more than 100 persons from the staff and postgraduated students. He and AMSC Director, Prof Chun Hui ZHOU, held several scientific activities on clay minerals, including a field trip to the Hong Miao Shan Bentonite Deposit in An Ji County, well-known for its production of bentonite-based commodity products such as: organoclay, inorganic gel and activated bleaching clay. In addition, Prof. Fiore gave a special lecture to AMSC group on ‘Trace elements in clays: a medical geology perspective’. Besides that, Prof. Fiore and Prof. Chun Hui Zhou exchanged new findings and ideas on the R&D on clay minerals. They also visited
China National Bamboo Institute, at Hangzhou, discussing with scientists there about the significance of clay minerals in soil and ecology and plant growth.

AMSC group is a clay research group with good reputation in academia and industry domestic and internationally. The Director, Professor Chun Hui Zhou, has been acting as an active and dedicated editorial member of Applied Clay Science. As guest Editor, he has edited several special issues on synthetic clay minerals and layered double hydroxides [2010, 48(1-2), pp. 1-290], on clay-based catalysts [2011, 53(2), pp. 85-358], on geology, properties and uses [2012, 2, pp.1-77]. More recently Chun Hui Zhou edited a special issue on Chinese Applied Clay Research [Applied Clay Science, 119, Part 1, Pages 1-184] that will be published on January 2016. [www.sciencedirect.com/science/journal/01691317/119/part/P1].

President of AIPEA’s visit to such a Chinese clay research group is very fruitful, helping strengthen connections between AIPEA and Chinese clay community as well as establishing future collaboration.

By Chun Hui Zhou
December / 2015
**CROATIAN CLAY GROUP**

The Croatian Clay Group (CCG) had three meetings with lectures during 2015:

- 05. 02. 2015 - Assoc. Prof. Sabina Strmić Palinkaš: *Primjena kratkova{ž}ne infracrvene spektroskopije (SWIR) u istraživanjima epitermalnih i geotermalnih okoliša: Primjeri s Novog Zelanda*;
- 26. 03. 2015 - Assoc. Prof. Marta Mileusnić: *Arheometrija keramike*;
- 03.06. 2015 – Dr. Nikolina Ilijanić: *Minerali glina u jezerskim i morskim sedimentima tijekom holocena duž istočno jadranske obale*.

Last year we concluded that our clay group had a large number of members, while only few were active. Hence, all members were notified in December 2014 by email that this year would be revision of membership. After revision in December 2015, number of members decreased from 37 to 15. In order not to omit anybody interested in work of our clay group we will send calls for our meetings and lectures to all members of the Croatian Geological Society which is our national umbrella organization.

**Plans for 2016**

Planned lectures:

- Goran Durn: Pseudogley developed on loess
- Mihovil Brlek: Clay minerals associated with unconformities in carbonates
- Biljana Kovačević Zelić and Želimir Veinović: Application of clay in geotechnics and environmental engineering.

The Croatian clay group website update and improvement.

Participation in conferences related to clays. Especially at 8th Mid European Clay Conference – MECC’16 in Košice (one our members is in International scientific board, while two members are convenors of sessions).

As we accepted to organize the 9th Mid European Clay Conference – MECC’18 in Croatia, the Croatian Clay group will announce the venue at MECC’16.

**CZECH REPUBLIC**

**CZECH NATIONAL CLAY GROUP**

The Czech National Clay Group published two numbers (55–56) of the “Informátor” bulletin in Czech language with information about clay science in the Czech Republic. ISSN of printed version is 1802-2480; ISSN of internet pdf version is 1802-2499.

Informátor published information about clay science, seminars with theses of lectures and upcoming conferences in the next year and overview about clay conferences and workshops in the year 2015.

We organized two seminars:

The Spring Meeting was organized in Prague on May 28th. Program of the seminar:

- Remembering to honorary member of CNCG - RNDr. Karel Melka, Ph.D.
- Zdeněk Klika “Quantitative mineral analysis of rocks – critical evaluation”.
- Jonáš Tokarský “Ghassoul – characterization and use of Morocco clay”.

The Autumn Meeting was organized in Ostrava on November 26th. 11 lectures and 6 posters were presented, see program of the seminar at www.czechclaygroup.cz.

In the year 2016, CNCG supports and helps organizers of the Mid European Clay Conference in Košice with propagation and preparation of the meeting (https://mecc2016.sav.sk/).

**Contemporary board of CNCG**

Chairman: Miroslav Pospíšil
Vice-chairman: Martin Šťastný
Treasurer: Petr Kovář
Members: Soňa Jarková, Pavel Hájek, Martin Holý, Petr Praus and David Koloušek (a representative of zeolite subgroup).

Correspondence address:
RNDr. Miroslav Pospíšil, Ph.D.
Charles University in Prague, Faculty of Mathematics and Physics, Department of Chemical Physics and Optics
Ke Karlovu 3, 12116 Prague 2
Czech Republic
E-mail: pospisil@karlov.mff.cuni.cz

By Marta Mileusnić and Anita Grizelj
December / 2015
15 was an active and successful year for the French Clay group (GFA) whose members have been involved in the organization of a variety of events and meetings, a new board has been elected, Jean-Louis Robert has been elected as chair of the European Clay Group Association (ECGA) in replacement of Peter Komadel (thank you Peter for the service). More importantly for the GFA and the clay community at large, Paris was chosen to host the next EUROCLAY meeting. It is a great honor for our group to organize this meeting and a fantastic challenge for us, and for the clay community, to make the EUROCLAY 2019 in Paris as exciting and as successful as this year’s edition in Edindurgh (Thank you Steve and organizers for the great time).

The French Clay Group supported the 3rd international seminar organized by the Scientific Interest Group on Geopolymers, Geocomposites, and Geomaterials (G3). ~80 persons attended the seminar, half of which from the industry. Members of the GFA were actively involved in the organization of the event with various sessions dedicated to clays and clay minerals: kaolinite and metakaolinite crystal chemistry and reactivity, properties of kaolinite and clay raw materials, or clay-induced properties in materials and polymer binders. Ph. Vieillard (IC2MP, Poitiers) gave also an invited conference on the applicability of predicted thermodynamic parameters to geopolymers. The next edition of this successful event will be held in Limoges in June 2016.

GFA 13th Annual Meeting – Clermond Ferrand, May 19-21, 2015
The annual meeting of the French clay group was organized in Clermont Ferrand by Vanessa Prevot and the Layered Double Hydroxides group headed by Christine Mousty. As usual this meeting gathered more than 50 persons, with 36 contributions (both oral and poster) leaving ample access to student presentations. Three of these student presentations were singled out for their quality (Hella Boumaiza on Birnessite synthesis, Marthe Tatiana Diatta on the preparation of ceramics from Senegalese clays, and Rima Mahdi on artificial metabolism in LDH). See photo. Renewal of GFA board was announced also at this meeting with Bruno Lanson as the new chair for the French Clay Group, Vanessa Prévot (vice-chair), Alain Jacquet (secretary), and Emmanuel Tertre (treasurer). This new board will serve until 2019.

EUROCLAY 2015 – Edinburgh (Scotland), July 5-10th, 2015
A large (~40) group of French participants attended this year EUROCLAY meeting, making GFA one of the best represented national groups at this high-quality and highly praised meeting. In addition to their implication as session conveners (see below) and as presenters, this large attendance also brought a strong support to the French candidacy for the organization of the next EUROCLAY meeting. The European Clay Group Association accepted this candidacy at its summer meeting held during the EUROCLAY meeting and the next EUROCLAY meeting will thus be held in Paris in early July 2019. Jean-Louis Robert will act as chair for this meeting and also as the new president of the ECGA. Congratulations Jean-Louis for both commitments, both strongly supported by the French Clay Group.

Several French members of the GFA acted also as conveners for the EUROCLAY 2015 meeting held in Edinburgh (5-10th July): Vanessa Prévot and Eric Ferrage (together with Vincente Rives and Doug McCarty) for the “Structural characterization of lamellar compounds” session, Daniel Beaufort (together with Jeff Walker and
Atsuyuki Inoue) for “The many faces of chlorites”, and Bruno Lanson (together with Paul Schroeder, Jay Austin, and Steve Banwart) for the “Clays in the Critical Zone: soils, weathering and elemental cycling”.

**International Master in Advanced Clay Science (IMACS)**

Graduation ceremony – Poitiers, September 10th, 2015

The fourth graduation ceremony of the IMACS took place in Poitiers (France), on September 10th. Congratulations to the 2015 IMACS graduate students: Ahmed Zohair Khalifa (EGY), Arif Hussain (PK), Carlos Aldana (VEN), Daniela Paraschiva Baitan (ROM), Joanna Dziadkowiec (POL), Marijke Struijik (NED), Md Imran Uddin (BD), Meron Teshome Ambelu (ETH), Mikita Shumskykh (UKR), Mohammed Abdel Sattar (EGY), and Paul George Ochiana (ROM).

Info and photos of the graduation ceremony are available from www.master-imacs.org/2015-ressources/farewell-congress-2015.php, information on the new IMACS Master (with a strong implication from international teachers) is available from www.master-imacs.org together with additional resources (including presentations of the internship research works).

**GFA BOARD (2015-2019)**

Chairman: Bruno Lanson (bruno.lanson@ujf-grenoble.fr, http://isterre.fr/bruno-lanson)


Secretary: Alain Jacquet (alain.jacquet@ Lafargeholcim.com)


By Bruno Lanson
December / 2015

**GERMANY-AUSTRIA-SWITZERLAND**

**GERMAN-AUSTRIAN-SWISS CLAY GROUP - DTTG**

The German-Austrian-Swiss Clay Group (DTTG) started her 2015 activities with the 6th international workshop on Qualitative and Quantitative Analysis of Clays and Clay Minerals, held at Karlsruhe Institute of Technology (KIT) Campus North, March 9-13th, 2015. Katja Emmerich, Annett Steudel and the KIT team organized a great meeting based on the contributions of an experienced team of lecturers. Topics of the workshop were: different aspects of XRD of clay minerals including QPA with the Rietveld method, physicochemical properties of clay minerals and their quantification (CEC, charge, surface), simultaneous thermal analysis and aspects of sorption and surface chemistry. Laboratory and computer exercises conveyed practical skills and stimulated a real exchange of experiences. The participants from Belgium, Germany, Italy, Switzerland and USA assessed the workshop to be excellent, very instructive and inspiring. The next DTTG workshop is scheduled for spring 2017 and will be organized by Georg Grathoff and Laurence Warr at Greifswald University.

Scientifically the DTTG was focused on the joint EU-ROCLAY and 52nd Annual CMS Meeting, held July 5-10th in Edinburgh (UK). A detailed conference report can be found in this newsletter. DTTG members were involved in the organization of the scientific program. Reiner Dohrmann and Thorsten Schäfer organized a one-day workshop Filling the Gaps From Microscopic Pore Structures to Transport Properties in Shales and a big technical session dedicated to the same subject. The Frey-Kübler-symposium in the session Clay Mineral Indices in Palaeo-Geothermal Studies, Hydrocarbon and Geothermal Prospection was chaired by Albert Gilg and Rafael Ferreiro Mählmann. Georg Grathoff and Stephan Kaufhold were organizing chairs in the General Session and the session Bentonites, respectively. Michael Plötze was one of the organizers and chairs of the session Quantitative Analysis. Reinhard Kleeberg presented the Pioneer of Clay Science Lecture of the CMS, titled The application of the Rietveld method in X-ray diffraction analysis of clays. Matthias Köster received the award for the best student oral presentation. Altogether the DTTG members performed actively and successfully at the Edinburgh meeting.

As an outcome of the 2014 MECC at Dresden, the DTTG supported an open access issue of Clay Minerals containing contributions selected from this conference. The preprints can be downloaded at www.ingentaconnect.com/content/minsoc/cm/pre-prints. Thanks to the editors and reviewers who did this great job.

In 2015, the DTTG joint the workgroup of GMIT, a joint newsletter journal of the German scientific and professional societies involved in geosciences. By this tool we also hope to make the clay science more visible to the other scientific disciplines like geology, mineralogy and geophysics.

The 2016, DTTG business meeting will be held at the MECC in Košice, July 4-8, 2016.

By Reinhard Kleeberg
January / 2016
**HUNGARY**

**HUNGARY CLAY GROUP**

**Election of the board**

On the 1st of June, 2015, the board of the Clay Mineralogy Section affiliated to the Hungarian Geological Society (HGS) (in the following, for simplicity, the Hungarian Clay Group) has been re-elected in May. With the new committee, the coverage on clay-topics related universities, research institutions and also industry, seems to be balanced.

The new board consists of the following:

- **President:** Erzsébet Tóth (Tata Geological Garden, Eötvös Loránd University, Budapest)
- **Secretary:** Ferenc Kristály (Department of Mineralogy and Petrography, Faculty of Earth Science and Engineering, Institute of Mineralogy and Geology, University of Miskolc)
- **Members:**
  - Izabella M. Farkas (MOL, Budapest)
  - Viktória Kovács-Kis (Thin Film Physics Group, Research Institute for Technical Physics and Materials Science, Hungarian Academy of Sciences - HAS, Budapest)
  - János Kristóf (Department of Analytical Chemistry, University of Pannonia, Veszprém, Hungary)
  - Tibor Németh (Department of Mineralogy, Eötvös Loránd University, Budapest; Institute for Geological and Geochemical Research, Research Centre for Astronomy and Earth Sciences, HAS, Budapest)
  - Béla Raucsik (Department of Mineralogy, Geochemistry and Petrology, Faculty of Science and Informatics, University of Szeged, Szeged)
  - Péter Sipos (Institute for Geological and Geochemical Research, Research Centre for Astronomy and Earth Sciences, HAS, Budapest)
- **Honorary Members:**
  - István Dódony (Department of Mineralogy, Eötvös Loránd University, Budapest)
  - Mária Földvári (retired, Budapest)
  - Géza Szendrei (retired, passed away in the summer of 2015)
  - István Viczián (Department of Mineralogy and Geology, Debrecen University, Debrecen)
- **Honorary President:** Ernő Nemecz (retired, Budapest)

**Meetings of the Hungarian Clay Group in 2015**

In 2015, the Hungarian Clay Group had 4 meetings.

- **1st June (Budapest)**

- **2nd September (Budapest)**
  - Celebration of the 95th birthday of Professor Ernő Nemecz (jointly organised with the Mineralogy and Geochemistry Section of the HGS, the Soil Mineralogy Section of the Hungarian Soil Science Society, the Veszprém Regional Committee of the Hungarian Academy of Sciences (HAS) and the University of Pannonia). The talk delivered by E. Nemecz was followed by a celebration. Nemecz, E. - Weathering indices and their significance in sedimentary petrology

- **5th October (Budapest)**
  - The archeometry-related talk was followed by a visit to the newly acquired drill-core collection of the Eötvös Loránd University.

  Solt, P. & Vágner, Zs. - Kaolin, pigment and refractory clay outcrops of the - Sárisáp region as revealed by archeological data.

- **13th November (Debrecen)**
  - Gyula Szőőr Memorial Session
  - A jointly organised one-day meeting, dedicated to the 75th birthday of the late Professor Gyula Szőőr. Organisers: Clay Mineralogy Section, Mineralogy and Geochemistry Section and Hungarian Plain Regional Section of HGS, Thermoanalytics Commission and Debrecen Regional Commission of HAS.
    - Bohátka, S. - The introduction of combined Derivatograph–QMS analysis at the Mineralogy and Geology Department of the University of Debrecen
    - Kristóf, J. & Horváth, E.: - The application of thermoanalytical methods in the structural study of clay mineral nanocomplexes
    - Posta, J. et al. - Thermospectrometry, a new thermoanalytical method: materials science and geochemistry applications
    - Udvardi, B. et al. - Analytical and evaluation experiences on a new TG-DSC device from the viewpoint of geological applications.
    - Hoffmann, E. & Bidló, A. - A soil clay mineralogical study on the Bükk Highlands
    - Kopecskó, K. - Reconstructing the process of cement hydration with the help of synthetic clinker phases
    - Kristály, F.; Szakáll, S. & Papp, I. - XPD and thermospectrometry study of the sulphate minerals of the Pécs-Vasas coal mine waste dump
    - Papp, I. et al. - Thermogravimetric study of silicic volcanic rocks: volcanological implications

**Clay-related presentations at other meetings in Hungary, in 2015**

Papers dealing with clay minerals, were presented also in several other organisations, in other sections of Hungarian Geological Society (HGS) and in various branches of the HAS. The meetings were held not only in Budapest...
but in other places too (in the following report these locations and organisations are specially indicated). The following meetings and presentations related to clay problems were held:

- Viczián, I. - Potential chemical effect of karst waters on clay alterations in the Villány Mountains.

March 9th. **Mineralogy and Geochemistry Section and Science History Section of HGS**
- Molnár, Zs. - Ethnic geology of the salt-affected marshes and soils of the Hortobágy region

May 16-19th. **Sixth Mineral Sciences in the Carpathians Conference**, Veszprém
The regional (Mid-European sensu lato) conference on Mineral Sciences had two clay-related sections: archaeometry and clay mineralogy, and had some relevant contributions at other sections, too. The abstract volume of the meeting is published at *Acta Mineralogica-Petrographica* Abstract Series, vol. 9 (2015). The presented clay-related Hungarian and international papers were:

**Archaeometry** (papers relevant to clay mineralogy only)
- Ionescu, C. & Hoeck, V. (plenary talk) - Archaeological ceramics: A geoscientific perspective
- Bajnóczi, B. et al. (oral) - Handheld XRF and EPMA-EDS analyses of blue-glazed Anabaptist-Hutterite and Haban ceramics – implications for the production technology and provenance of the pigment
- Baricz, A. et al. (oral) - Modelling the effects of acid solutions on the glaze of Zsolnay architectural ceramics (Budapest, Hungary)
- Ionescu, C. et al. (oral) - Integrated study on compositional and technological characteristics of Celtic pottery from Transylvania (Romania)
- Kristály, F. (oral) - Evolution of amorphous components, non-silicates and clay minerals during clay firing: Experiments and possible applications in archaeometry
- Crandell, O. et al. (oral) - Pottery firing technology in Late Bronze Age and Early Iron Age in NW Romania
- Ionescu, C. et al. (oral) - Effect of temperature on the composition and microstructure of carbonate-rich illitic clay investigated by FTIR
- Crandell, O. et al. (poster) - Tools used in ceramics production during the Neolithic and Chalcolithic: Examples from Teleorman county, Romania
- Giurgiu et al. (poster) - Mineralogical study of tegulae from Roman Porolissum (NW Romania)

**Clay mineralogy**
- Zviagina, B. & Drits, V. (oral) - The illite-aluminoceladonite series: distinguishing features and identification criteria
- Németh, T. et al. (oral) - Transformation of clay minerals in soils and its effect on metal adsorption
- Viczián, I. (oral) - Diasporic bauxite in the Villány-Bihar structural unit, in deeply subsided basement position
- Ivanovskaya, T. & Zaitseva, T. (poster) - Dioctahedral 2:1 phyllosilicates of the illite-glaucnite series of the Precambrian and Lower Cambrian deposits
- Kovács et al. (poster) - Argillic alteration of igneous rocks in hydrothermal environments (Vérence mts., Western Hungary)

**Other sections**
- Farkas, I. (poster) - Anomalous behavior of some minerals during heating procedure – the third step applied in clay mineral diagnostics
- Leskó, M. et al. (poster) - Correlation between Toarcian (Early Jurassic) manganiferous sediments from the Tölgyhát Quarry (Gerecse Mts., Hungary) and Úrkút manganese ore deposit (Bákony Mts., Hungary): a mineralogical study
- Ringer, M. et al. (poster) - Environmental mineralogical study of a fluorine absorber of a brick works in North Hungary

**Relevant Hungarian PhD defences in 2015**
- 17th November: Beatrix Udvardi (Eötvös Loránd University, Budapest): Complex environmental scientific study of clay-rich sediments in the vicinity of Kulcs.
- 27th November: Dávid Molnár (University of Szeged): Palaeoecological reconstructions of S-Transdanubian and E-Croatian loess-paleosol sequences using palaeocological and sedimentological investigations.

**International activity**
**EUROCLAY, 5-10 July, Edinburgh**
Unfortunately, Hungary delegated only two researchers to this meeting. All interaction between AIPEA and the Hungarian Clay Group was managed via e-mail. The Hungary-related contributions:
- Szabó, T. et al. - Immobilization of proteins in ultrathin clay films via layer-by-layer self-assembly
- Gergely, F. et al. - Microscale X-ray analysis of metal uptake by argillaceous rocks

Erzsébet Tóth
December / 2015
ISRAEL
ISRAEL SOCIETY FOR CLAY RESEARCH
The annual meeting of The Israel Society for Clay Research took place on March 22<sup>nd</sup> 2015 at the Open University of Israel in Raanana. Approximately 20 members attended 11 talks that were presented in three sessions. The main presentations were about adsorption of and purification by clays, fired-clay ceramic pottery, bentonite in Israel, and iron oxides from the Dead Sea area.

We all honor Prof. Heller-Kallai Lisa that will receive the Bairly award.

The next annual meeting will be held on April 12<sup>th</sup> 2016 at the Open University of Israel.

For more information contact:
Dr. Nurit Taitel-Goldman
The Open University of Israel
Raanana, Israel.
Tel: 972-9-7781779
Email: nuritg@openu.ac.il

We wish you all a happy and fruitful year.

By Nurit Taitel-Goldman
December / 2015

ITALY
ITALIAN ASSOCIATION FOR THE STUDY OF CLAYS - AISA onlus
2015 Activities
The activities of AISA members concerned the presentation of research results at international and national conferences and the participation in national and international research programs.

During the Annual General Assembly and the Clay Day 2015, the AISA members exchanged their scientific experiences. This year the two events were held at Castellaneta Marina (Taranto), at the Calanè Conference Center of the Nova Yardinia Resort, during the International Conference on Applied Mineralogy & Advanced Materials (AMAM2015). The Clay Day 2015 took place during the “Clay Minerals for Health, Earth and Environment Session” where the following presentations were given:

- ZNO/MCM-41 Composite from hydrothermally treated montmorillonite for energy and environmental applications;
- Inducing the precipitation of LDH to remove metals from mine-waste drainages;
- Pt dispersed on sulphated-zirconium pillared saponite as catalysts in citronellal conversion;
- Water vapour adsorption on porous materials for solar cooling applications;
- TRPM8 channel-functionalized halloysite nanotubes to target tumor vascularisation;
- The anti-inflammatory activity of natural allophane;
- Assessment of crystallinity and chemical formula of pristine smectites for medical applications;
- Preparation of modified clay for drug release system.

The subjects of the presentations were very interesting and environmental clay scientists had the opportunity to interact with researchers applying clays in the medical field.

The previously mentioned International Conference on Applied Mineralogy & Advanced Materials (AMAM2015) was organized by our Association on June 7-12<sup>th</sup>, 2015 at Castellaneta Marina and the organizing committee was composed by Dr. Saverio Fiore (President), Dr. Claudia Belviso, Mr. Pietro Pasquale Ragone and Dr. Antonio Lettino (Institute of Methodologies for Environmental Analysis of National Research Council of Italy, IMAA-CNR), and by Prof. Rocco Laviano from the University of Bari, Italy. The aim of the Conference was to gather scientists in mineralogy, materials science, physics, biology, chemistry and cultural heritage in order to share ideas and knowledge on the boundless world of the crystalline and non-crystalline solid state. Several delegates from all over the world contributed to the following topics: biomaterials; materials and minerals; processing and engineering; environment and technology; microporous and mesoporous materials; nanomaterials.

The conference centre ensured that lectures rooms were all within a few meters from each other, making it easy to move among the rooms hosting the sessions. Accommodation, restaurants and leisure areas were all nearby. Although the location was an hour by car away from the town of Brindisi, delegates appreciated the opportunity to stay in touch with one another in addition to the time they spent together attending sessions.

Abstracts presented at AMAM2015 were collected in the 4<sup>th</sup> volume of Scientific Research Abstracts (online ISSN: 2464-9147). Conference proceedings were published in the 2<sup>nd</sup> volume of ProScience (ISSN-online: 2283-5954) and are available on open access platform at www.sciентеvents.com/proscience/

Next edition of AMAM will be held on June 2017 in conjunction with the 13<sup>th</sup> International Congress of Applied Mineralogy. Information can be found at www.amam2017.org website.
Dr. Laura Scrano, member of the Directive Board of AISA, tried to organize a school on the study of clays to be held late in the summer in Tunisia, in collaboration with the Tunisian Association of clays. The program of the lessons had been agreed, when a terrorists attack on the beach of Sousse took place. Following this serious event, the organization of the school was suspended.

At the end of the year, the AISA members were 59, 48 ordinary, 9 juniors and 2 Societies. In addition to this, there were also 5 life members and 2 honorary foreign members.

**Work Plan For 2016**
Some members of the AISA are organizing the 2nd International Conference on Atmospheric DUST that will be held on June 2016. Information can be found at www.dust2016.org website.

**List of executive members of AISA onlus**
President: Aldo MIRABELLA (Previously, Ist. Sper. le Studio e Difesa del Suolo, Firenze)
Vice President and Secretary: Vito SUMMA (Istituto di Metodologie per l’Analisi Ambientale, CNR, Tito Scalo, Potenza)
Treasurer: Rocco LAVIANO (Dipartimento di Scienze della Terra e Geoambientali, Univ. Bari)
Counsellors: Luca ALDEGA (Dip. Scienze della Terra, Univ. Roma Sapienza)
Piergiulio CAPPELLETTI (Dip. Scienze della Terra, Univ. Napoli - FEDERICO II)
Mauro PALLARA (Dipartimento di Scienze della Terra e Geoambientali, Univ. Bari)
Laura SCRANO (Dip. Sistemi Culturali, Univ. Basilicata, Potenza)
Massimo SETTI (Dip. Scienze della Terra, Univ. Pavia)
Cristina SILIGARDI (Dip. Ingegneria “Enzo Ferrari”, Univ. Modena e Reggio Emilia)
Chiara ZANELLI (Ist. Scienza Tecnologia dei Materiali Ceramici – ISTEC-CNR, Faenza)

**Administrative address**
AISA – onlus
c/o Dipartimento di Scienze della Terra e Geoambientali
Via Orabona, 4, 70125 Bari – Italia

By Aldo Mirabella
January / 2016

**JAPAN**

**CLAY SCIENCE SOCIETY OF JAPAN**

**Committee**
The following officers were elected for the fiscal year 2014 and 2015:
President: Prof. K. Kuroda, Waseda University
Vice presidents: Prof. A. Yamazaki, Waseda University
Dr. T. Hatta, Japan International Research Center for Agricultural science
Secretary: Dr. M. Kawano, Kagoshima University
Principal Editors: Dr. M. Suzuki, National Institute of Advanced Industrial Science and Technology (Nendo Kagaku)
Prof S. Takagi, Tokyo Metropolitan Univ. (Clay Science)

**The 59th annual meeting**
The 59th annual meeting of the Clay Science Society of Japan was held at Yamaguchi University from 2 to 5th, September 2015. It was principally organized by Profs. J. Kawamata, Sawai, Tani, Suzuki and Mr. Tominaga of Yamaguchi University. A total of 99 papers including 40 posters were presented. The program also included plenary lecture entitled Active faults and seismic belts learnt from outcrop and history by Prof. Yuji Kanaori of Yamaguchi University, a symposium entitled Friction properties of clay minerals and their relation with natural hazards such as land slide and fault slip and a course of lectures, for beginners, on the following topics:
- Method of methylene blue adsorption for bentonite (by Dr. Y. Miyoshi)
- Modeling of ion adsorption (by Prof. K. Fukushi)
- Viscosity of montmorillonite/water suspension (by Dr. K. Suzuki)
- Separation of clay fraction and identification of clay minerals (by Dr. Hatta)
- CEC and soil pH measurement in soil sciences (Prof. S. Wada)

**Awards**
The society presented awards to the following members at the occasion of the annual meeting.
- Clay Science Society of Japan Award was given to T. Sato, Hokkaido University.
- Distinguished Achievement Awards were given to Showa KDE KK, Kunimine Industry KK, Kanto Bentonite Mine KK, Shokozan Mine KK, and Hikawa Mine, KK.
- Young Scientist Awards were given to Y. Ide, and H. Sakuma, National Institute for Materials Science
- Best Technological Awards were given to A. Owada, T. Sato and E. Hirabayashi, National Institute of Advanced Industrial Science and Technology
- Best Paper Awards were given to R. Tominaga et al.
Invited speakers at the symposium. From the left, Prof. Kameda, Prof. Katayama, Dr. Sakuma, Prof. Jige and Prof. Okawara (photo courtesy of Tsutomu Sato).

CSSJ Awardees 2015. From left, Prof. Sato, Dr. Ide and Dr. Sakuma (photo courtesy of Tsutomu Sato).

CSSJ Best Technological Awards 2015. From left, Mr. Owada, Mr. Sato and Mrs. Hirabayashi (photo courtesy of Tsutomu Sato)

CSSJ Best papers awardees for 2015. From left, Mr. Tominaga and Dr. Matsumura (photo courtesy of Tsutomu Sato).
Clay Science Society of Japan publishes three issues of Nendo Kagaku (Journal of the Clay Science Society of Japan in Japanese), and four issues of Clay Science every year. In the fiscal year 2015, Vol. 54, No. 1, 2 and 3 for Nendo Kagaku, and Vol.19, No.1, 2, 3 and 4 for Clay Science were published.

For further updated information: www.cssj2.org/index_e.html or contact Tsutomu Sato, Hokkaido University, e-mail: tomsato@eng.hokudai.ac.jp

By Tsutomu Sato
January / 2016

KOREA
KOREAN CLAY SCIENCE SOCIETY
Committee

Korean Clay Science Society (KSSC) was launched Sep. 2012, when the 2nd Asian Clay Society meeting was held at Ewha Womans University, Seoul, Korea.

The following officers were elected for the fiscal year 2012 and 2013:

President: Prof. J. H. Choy, Ewha Womans University
Vice presidents: Prof. Byungsei. Jun, Kyungnam University
Prof. Hyen Goo Cho, Gyengsang National University
Secretary: Prof. J. Kim, Yonsei University
Board members: Prof. E. S. Kim, Kyonggi University
Prof. Hyoung-Jin Choi, Inha University
Dr. In Park, Korea Institute of Industrial Technology (KITECH)
Prof. Hyun Jung, Dongguk University
Dr. J. Yoon Choi, Korea Conformity Laboratories (KCL)
Prof. Soon-Ho Kim, Kyungnam University
Prof. Jae-Min Oh, Yonsei University

Annual Meetings
6th Annual meeting

The 6th annual meeting of the Korean Clay Science Society (KSSC) was held at Ewha Womans University, Seoul in May 29-30th, 2015. It was organized by KSSC committee and sponsored by Ewha Womans University, Kaolin Regional Innovation System Agency, CINBM, KICET, Solvay Korea and Global B&M. Total 41 papers including 11 oral presentations and 30 posters were presented. The program included plenary lectures by Prof. Ajayan Vinu (Australia) and Prof. Seong-Ju Hwang (Korea), and 9 invited lectures.

7th Annual meeting

The 7th annual meeting of the Korean Clay Science Society (KSSC) was held at Yonsei University, Wonju in Oct. 16th, 2015. It was organized by KSSC committee and sponsored by CINBM and National Research Foundation Korea (STAR program). Total 30 papers including 8 oral presentations and 22 posters were presented. The program included keynote lectures by Prof. Mihail Barboiu (France), and 7 invited lectures by Prof. Fabrice Leroux (France), Prof. Tomohiko Okada (Japan) and Prof.
Yusuke Ide (Japan). The symposium was entitled **New Frontiers in Clay, Supramolecules & Material Science**.

**Academic activities**

Prof. J. H. Choy, president of Korean Clay Science Society, works currently as an associate editor of “Journal of Nanoscience and Nanotechnology” and “Journal of Biomedical Nanotechnology”, an editorial board member of “Scientific Reports (Nature Publishing Group) and as an international advisory board member of “Chemistry-An Asian Journal”. Prof. Jinwook Kim, Prof. Hyen Goo Cho and Prof. Jae-Min Oh organized a symposium at EUROCLAY Edinburgh 2015 (July 5-10th, 2015, Edinburgh, UK) under the title of **Asian Clay Minerals Group Research in Progress (II)**. Total 28 papers (1 keynote, 14 oral presentation and 13 posters) were presented at the symposium.

International Advisory Board Committee on Asian Clay Society in which Korean Clay Science Society is involved is organizing **The 3rd Asian Clay Conference** (Nov. 18-20th, 2016, Guanzhou, China). In this conference, clay science societies from Korea, China and Japan as well as other Asian countries will be gathered to present papers and discuss various topics in clay-related sciences and technologies.

For further updated information: www.korclay.org or contact Prof. Jinwook Kim, Yonsei University, e-mail: jinwook@yonsei.ac.kr

By Jin-Ho Choy
January / 2016

**POLAND**

**POLISH CLAY GROUP**

Report not available.

**PORTUGAL**

**PORTUGUESE CLAY GROUP**

Activities of the Portuguese Clay Group (APA) during 2015

APA members were mainly involved during 2015 in the:
• presentation of research results at international and national conferences
• participation in the organization of some Conferences and Meetings
• participation in IMACS
• participation in short courses
• participation in research programs.

Several members presented a total of 34 oral and poster presentations on several international Conferences, such as EUROCLAY 2015 (Edinburgh, UK), AMAM 2015
(Castellaneta Marina, IT), Goldschmidt 2015 (Prague, CZ), IV CIBAP (Boi, SP), X Cong. IberoGeoquímica CIG (Lisboa, PT), X Cong. Ibero Arqueologia CIA (Evora, PT) and MEDGEO (Aveiro, PT).

Some members participated in the organization of international conferences, such as MEDGEO, IV CIBAP and X CIG; others were conveners of Special Sessions (EUROCLAY and X CIA).

APA (or APA members) cooperated on the organization of Short Courses on XRD/XRF and on SEM as well as on the Aveiro University, participation on the Erasmus-Mundus IMACS master.

Among the several research programs in which APA members participate, the following are of paramount importance: MINATURA (H2020), GEOSULF (ERA-MIN), and EIP on Raw Materials

Work Plan For 2016

Some members of the APA are involved in the organization of international conferences such as the 3º Co-GePLiP (Cape Verde), the 35th International Geological Congress (Cape Town, SA), the 15th Water-Rock Interaction International Symposium WRI-15 (Evora, PT); others will be conveners of Special Sessions (Goldschmidt 2016 and MECC 2016).

New Short Courses on Analytical Methods for Clay Science will be carried on as well as an International Symposium on Raw Materials on Nampula, Mozambique.

By Fernando Rocha
January / 2016

ROMANIA
ROMANIAN GROUP FOR THE STUDY OF CLAYS AND CLAY MINERALS

AIPEA has received information that Romanian Group for the Study of Clays and Clay Minerals is no longer in activity.

RUSSIA
RUSSIAN CLAY GROUP

The Russian Clay Group (RCG) is affiliated to European Clay Group Association ECGA. RCG was created at 1994 and includes 43 members who confirmed their membership in 2015.

Honorary President: Prof. Victor Drits, Geological Institute RAS.
President (2014-2018): Dr. Victoria Krupskaya, Institute of Ore Geology, Petrography, Mineralogy and Geochemistry RAS.
Secretary: Dr. Tatiana Alekseeva, Institute of Physical-Chemical and Biological Problems in Soil Science.

At the 2015 the Group organized two scientific events: 4th Russian workshop by clay minerals (Russian Clay School) – “Argilla Studium-2015” (30th November – 2nd December) and “3rd Russian Conference by clays and clay minerals – CLAYS-2015” (2 – 4th December). Both events took place in Moscow at the Institute of Ore Geology, Petrography, Mineralogy and Geochemistry RAS (IGEM RAS) in Russian and English language by financial support of Russian Foundation of Basic Research, Federal Agency of Scientific Organizations (FASO) of Russian Federation, E-Globaledge Corporation, Techninfo Ltd and the company “Nienschanz-ScienTific”.

4th Russian workshop by clay minerals (Russian Clay School) – “Argilla Studium-2015”

The main purpose of the regular workshops by clay minerals is the improvement of both methodological and scientific basis of specialists, young researchers and students who are working within the field of clay science, including geology, chemistry, ecology, nano-technology etc.

The program of the 4th Russian Clay Workshop by Clay Minerals “Argilla Studium-2015” consisted of three parts:
• 8 lectures of the leading Russian and foreign scientists in the clay science;
• Round-table discussion of the problems of mixed layer minerals identification and quantification including 7 lectures;
• Workshop on quantitative analysis.

Invited lectures have been done by Dr. Bella Zviagina, Dr. Boris Sokharov, Dr. Tatiana Ivanovskaya (Geological Institute, Russian Academy of Science, Russia), Dr. Eric Ferrage and Dr. Fabian Hubert (University of Poitiers, France), Dr. Andrey Kalinichev (Laboratoire Subatech, Ecole des Mines de Nantes, France), Dr. Maria Timofeeva (Institute of Catalysis, Siberian Branch of Russian Academy of Science, Russia), Dr. Boris Pokid’ko (Moscow Technological Institute, Russia). Lectures during round-table discussion and workshop were held by Dr. Ilza Vircava (Tartu University, Estonia), Dr. Dmitrij Ksenofontov (Geological Faculty of Lomonosov Moscow State University), Dr. Inna Tolpeshta (Faculty of Soils Science, Lomonosov Moscow State University), Dr. Victoria Krupskaya and Sergey Zakusin (Institute of Ore Geology, Petrography, Mineralogy and Geochemistry Russian Academy of Science). The number of participants was 95 persons from Russia, France, Latvia, Estonia and Germany.
The next 5th Russian workshop by clay minerals (Russian Clay School) – “Argilla Studium-2016” is planned to be held in Russia in the autumn of 2016.

3rd Russian Conference by clays and clay minerals – CLAYS-2015
Program included 5 plenary lectures (Dr. Victor Drits, Geological Institute, Russia; Dr. Arkadiy Savko, Voronezh University, Russia; Dr. Nikita Mergelov, Geographic Institute, Russia; Dr. Eric Ferrage, University of Poitiers, France; Dr. Andrey Kalinichev, Laboratoire Subatech, Ecole des Mines de Nantes, France), 2 keynote lectures (Dr. Boris Sakharov, Geological Institute, Russia; Dr. Maria Timofeeva; Institute of Catalysis, Russia) as well as 23 oral and 22 poster presentations in frame of five scientific sessions. The following topics was discussed: crystal chemistry of clay minerals, modern diagnostic and research methods, clay minerals for oil and gas industry; mineralogy and geochemistry, geology of clays, genesis and synthesis, clay minerals in weathering crusts, soils and paleosols, organo-mineral interactions; properties of clays; application in industry, agriculture, archeology, arts, wastes management etc. The number of participants was 105 persons from Russia, Uzbekistan, France, Latvia, Estonia and Germany.

By Victoria Krupskaya
January / 2016

SLOVAKIA
SLOVAK CLAY GROUP
The activities of the Slovak Clay Group (SCG) in 2015
On June 14-15th, 2015 the SCG organized the workshop Clay minerals and selected industrial minerals in material research, industrial applications and environment. The workshop was held in the well-known Smolenice Castle, situated at the foot of Male Karpaty mountains, 60 km northwest from Bratislava, the capital of the Slovakia. The castle shelters the Congress Centre of the Slovak Academy of Sciences in which numerous international congresses and symposiums take place each year. The main goal of the workshop was to provide the PhD students and young scientists the possibility to deliver lectures and to discuss their results with senior scientists. Nineteen lectures and seven posters covering wide range of clay research were presented. The project activities of the SCG members were debated as well. The representatives of the Czech Clay Group took part at the meeting as well. The workshop was partly financially supported by the “Council of the Scientific Societies at the Slovak Academy of Sciences”.

The SCG members presented thirteen contributions on the EUROCLAY 2015 conference held in Edinburgh, July 5-10th, 2015.
In September 2015, the SCG council settled the Organizing committee for the 8th Mid-European Clay Conference, MECC 2016, to be held on July 4-8th, 2016 in Košice, Slovakia. The MECCs are held regularly since 2001 in different countries of Central Europe. The first and very successful one was organized in September 2001 in Stará Lesná, Slovakia, by the Slovak Clay Group, followed by the conferences in Miskolc (Hungary, 2004), Opatija (Croatia, 2006), Zakopane (Poland, 2008), Budapest (Hungary, 2010), Průhonice (Czech Republic, 2012) and Dresden (Germany, 2014). The main objective of this internationally recognized conference is to bring together researchers, students and industrial partners and to discuss various fields related to clays, zeolites and other layered and silicate raw materials.

Information: mecc2016@savba.sk and/or www.mecc2016.sav.sk

**SCG Council**
President: Jana Madejová
Vice-president: Peter Komadel
Members: Ivan Janotka, Iveta Štyriaková, Peter Uhlík

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By Jana Madejová
January / 2016
**SPAIN**

**SPANISH CLAY SOCIETY**

During the EUROCLAY 2015 was given the Martin Vivaldi Award to Bernd Wicklein, by his paper “Clay-lipid nanohybrids: Toward influenza vaccines and beyond”. The Martín Vivaldi Award is an European award, sponsored by the European Clay Groups Association (ECGA) and financially supported by Sociedad Española de Arcillas (Spanish Clay Society, SEA). The Selection Committee of the 2015 Martin Vivaldi Award was formed by Prof. Peter Komadel (ECGA President), Prof. Derek Bain (UK), Prof. Jean-Louis Robert (France), Prof. Jaime Cuevas (Spain) and Prof. Mercedes Suarez (Spanish Clay Society representative).

During the EUROCLAY 2015 the results of an interlaboratory test organised by SEA with participation of SEA members was presented at the session “Developments and applications of quantitative analysis to clay bearing materials incorporating The Reynolds Cup School”.

The Sociedad Española de Arcillas organized the XXIV Scientific Meeting in Seville (Spain) in Universidad de Sevilla on November 13th, 2015, with contributions of fifty participants. The Organising Committee was formed by SEA members from the Universidad de Sevilla and Consejo Superior de Investigaciones Científicas (IRNASE), coordinated by Dr. Tomas Undabeytia (IRNASE).

The Conference program included:

- Plenary lectures:
  - “El papel de la arcilla en la captura y almacenamiento de CO₂” (Role of clay minerals in CO₂ capture and storage), Prof. Emilio Galán (Universidad de Sevilla).
  - “Aplicaciones de la química computacional al mundo de las arcillas” (Applications of computational chemistry in the field of clays) Dr. Ignacio Sainz (Instituto Andaluz de Ciencias de la Tierra, Granada).

- Scientific session of poster presentations,
  - The announcement of the winners of the young researches’ awards offered by the SEA to Eulalia Gómez-Pantoja (IRNASE-CSIC) and to Javier García Rivas (Universidad de Salamanca).

The International Clay Conference 2017 “Clays from the ocean to the space” will be held in Granada (16-21 July, 2017) organized by the Spanish Clay Society. The website of the meeting is www.16icc.org

By Patricia Aparicio
January / 2016
TUNISIA
TUNISIAN CLAY GROUP
Committee
The members of the Tunisian Clay Group (TCG) Executive Committee are:

President: Fakher Jamoussi
Vice-President: Nouri Hatira
Secretary General: Mondher Hachani
Treasurer: Kamel Jeridi
Members: Samir Bakkouti
Mounir Medhioub
Hédi Ridha Chaftar
Emna Fakhfakh
Randa Ben Abdallah
Béchir Moussi

Activity of the Tunisian Clay Group during 2015
Participation to congress and symposium
Some members of the Tunisian Clay Group (TCG) participated during 2015 to the following congress and symposium with presentation of several communications.

• Symposium on “Green Business et Développement Durable”, 14-16 May 2015, Hammamet, Tunisia.
• 3rd International Symposium on Innovation and Technology in the Phosphate Industry [SYMPHOS 2015], 18-20 May 2015, Marrakech, Morocco.

Organization of scientific excursion
The Tunisian Clay Group (TCG) has also organized scientific excursion for the students of the University of Sfax (Tunisia) in the context of the valorization of clays, quartz sand and carbonates. It took place in 28-29 October, 2015. Visit of Enfidha Cement Plant, carry of Clay and Quartz Sand.

For further information, please contact:
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By Fakher Jamoussi
December / 2015
TURKEY
CLAY SCIENCE SOCIETY-TURKEY
In 2015, Clay Science Society-Turkey has organized the 16th Turkish National Clay Symposium during September 2-5th, 2015 at Çanakkale, Turkey. The 18 Mart University hosted the symposium, with the leadership of the colleagues from the Department of Geological Engineering. Prof. Dr. Süha Özden and Assist. Prof. Dr. Ayten Çalık acted as the Chair and the General Secretary of the Symposium, respectively, and did a great job in bringing together the participants from many disciplines. The symposium agenda consisted of a total of 51 presentations and 4 invited lectures on a wide number of topics; a discussion panel on the subject: The Istanbul-Şile region clays and their importance in ceramic industry; and in the arrangement of a technical trip to the Çan kaolin deposit and Research and Development Center of Kalebodur Ceramic Company that is located at Çan-Çanakkale. There has been an amazing social/field trip to the battlefields of Gallipoli (Çanakkale), of which the year 2015 was celebrated as the 100th Anniversary of the Çanakkale land battles. This fact made this trip even more unforgettable for those who attended this trip. The full papers and extended abstracts of the scientific presentations were published in the Proceedings of the 16th Turkish National Clay Symposium, which were published in Turkish.

The scientific program was organized with the following topics:
• Geology of Clays
• Mineralogy and Geochemistry of Clays and Clay Minerals
• Clays and Archaeology
• Clays in Ceramic and Cement Industries
• Clays in Cosmetic Industry
• Geotechnical Properties of Clays
• Mining Law and Clays
• Soil Clays and Agriculture
• Physico-Chemical Properties of Clays and Clay Minerals
• Clays and Health
• Zeolites

During the Symposium a good interaction between the university-industry was established through scientific and applied contributions by the participants from both sides. Besides the hospitality of the Çanakkale 18 Mart University, the invaluable sponsorship of the Çanakkale Kalebodur and Kale Maden Companies; Akçansa Cement Co., Matel Raw Materials Co., Esmagas Itaca Glass and Ceramic Co., Lamberti Chemicals Co., Er Mining Co., and Lirkim Chemical Co., were highly appreciated.

The upcoming organizational events by the Clay Science Society of Turkey will be the organization of the:
• The 5th Mediterranean Clay Meeting (MCM2016) which will take place in İzmir-Çeşme during September 25-29, 2016, and
• The 17th Turkish National Clay Symposium in September, 2017 which will be hosted by the Muğla Sıtkı Koçman University in the City of Muğla.

On behalf of the Clay Science Society of Turkey I would like to invite all of the clay scientists to participate in the MCM2016.

By Asuman G. Türkmenoğlu
January / 2016

UKRAINE
UKRAINIAN CLAY GROUP
During the year 2015, the activity of the members of different groups of Ukraine included studies of the:
• Effects of laponite additives as stabilizer of carbon nanotubes in different liquid crystalline systems (Li-setski, L.; Soskin, M.) and polymeric (Lysenkov, E.; Melnyk, I.; Bulavin, L.; Klepko, V.).
• Dyes adsorption on hybrid adsorbent particles; electrokinetic properties of carbon nanotubes + laponite hybrid particles (Manilo, M.).
• Desorption of cesium from the surface of montmorillonite-humic acids and montmorillonite-iron hydroxide systems (Fedorova, V.M.).
• Electrokinetic potential and flocculation of bentonite suspensions in solutions of surfactants, polyelectrolytes and their mixtures (Barany, S.).
The mineral composition, thermal properties and drying of clay minerals from different Ukrainian deposits (Mykhaylyk, V. O.).

Impact of ultra-low amounts of amino-modified montmorillonite on dynamics and properties of densely cross-linked cyanate ester resins (Fainleib, A.).

Effects of strengthening of soft marine clay using bioencapsulation (Stabnikov, V.).


Different geological properties (rockmagnetic, palaeomagnetic, and paleontological) of Ukrainian sediments (Bondar, K.; Ridush, B.; Sytnyk, O.).

The following institutes and universities were involved into the studies: Taras Shevchenko National University of Kyiv, Institute of BioColloid Chemistry, Institute of Physics, Institute of Macromolecular Chemistry, Technical Thermal Physics Institute, Kiev National University of Technology & Design, Institute for Scintillation Materials of STC “Institute for Single Crystals”, Ukrainian Research Institute of Medical Rehabilitation and Balneology of the Ministry of Health of Ukraine, Chernivtsi ‘Yuriy Fedkovych’ National University, Ivan Krypiakevich Institute of Ukrainian Studies, Ferenc Rákóczi Transcarpathian Hungarian Institute (Ukraine), Dumanskii Institute of Colloid Chemistry and the Chemistry of Water, Department of Microbiology and Biotechnology, National University of Food Technologies, Kiev, Ukraine.

The educational courses on clay sciences were presented in many Ukrainian universities, e.g. Surface phenomena and disperse systems, Solid state chemistry, and (Khmelnytsky National University), Physical and colloidal chemistry (Lviv National Medical University named Daniel Galician), Surface phenomena (Kherson State Technical University), Physical and Colloid Chemistry Lviv Polytechnica.

Neither clay meetings nor workshops were organized during 2015.

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By Nikolai Lebovka
January / 2016

UNITED STATES OF AMERICA
THE CLAY MINERALS SOCIETY (NORTH AMERICA) - CMS
EUROCLAY 2015, the quadrennial meeting of the European Clay Groups Association (ECGA), was a joint meeting with the Clay Minerals Society, the International Natural Zeolite Association and The Clay Minerals Group of the Mineralogical Society of Great Britain & Ireland. It was held at Edinburgh University, Appleton Tower, on the 5-10th July and was a fusion of EUROCLAY and The Clay Minerals Society 52nd annual meeting with The Year of Mud from The Geological Society mixed in along with support from the International Union of Soil Science in the International Year of Soils. The conference was organized by CMS member Prof. Steve Hillier of the Hutton Institute in Aberdeen, Scotland and was supported by a large team that included the program and finance committees, session chairs, the staff of the Mineralogical Society of Great Britain and Ireland, and the managing editor of Clays and Clay Minerals, Kevin Murphy. The delegates who assembled together in Edinburgh represented some 48 different countries, with 511 oral and poster presentations. More than 100 of the participants were students. The convened sessions were aligned with the themes of Energy, Materials, and Environment and Health, and brought together an exciting, leading-edge program with specialists from different disciplines related to clays and clay minerals. A pre-meeting workshop and mid-meeting field excursions and short course were integral parts of the scientific program.

The meeting also provided the opportunity to thank Reed Glasmann for his huge contribution to the society in terms of managing the finances over the last several years. Awards for the best student poster and best student oral presentation were made jointly with the European Clay Groups Association and Association Internationale pour l’Étude des Argiles. Award winners for the best student oral presentations were Bhabananda Biswas, Mathias H. Köster, and Sayako Inoue. Award winners for the best student poster presentations were Cristina Fernández-Barrauco, Katherine Rothwell, and Darja Komar. At the beginning of the Society’s business meeting, CMS President W. Crawford Elliott offered a thoughtful summary of the current state of health of the society. In a time of significant change in the publishing world, small societies like the CMS need to work hard to survive. A refreshed executive committee (new treasurer is Paul Schroeder; new
president is Prakash Malla) now takes over the mantle of responsibility to carry the society forward.

A one-day short course on the Chemistry of Clay Polymer Reactions was delivered by Benny K.G. Theng from Landcare Research in New Zealand. And a workshop entitled *Filling the gaps – from microscopic pore structures to transport properties in shales* was organized by Reiner Dohrmann, Chris Greenwell and Thorsten Schaefer under the auspices of the OECD Nuclear Energy Agency (NEA) “Clay Club” in association with Euroclay2015, The Clay Minerals Society and The Geological Society. The workshop focused on:

- The current state-of-the-art of different spectro-microscopic methods
- New developments addressing the above mentioned knowledge gaps in clays.
- The perception of the interplay between geometry and electrostatics of experimentalists and molecular/ Monte Carlo modeling groups providing valuable information on a lattice (1 clay surface; Å) scale.

Field trips included excursions to Dob’s Linn and Grey Mare’s Tail in the Southern Uplands led by Simon Kemp, Hugh Barron and Maxine Akhurst, to the Devonian – Carboniferous upland to consider the acid coal swamp transition 325 – 350 million years ago as exposed in the sea cliffs of S.E. Scotland, led by Christopher Jeans, Jennifer Huggett, Elena Kuznetsova, David Wray and Euan Clarkson, and an overview of the soils and geological time along The James Hutton trail, led by Jeff Wilson, Allan Lilly and Helen Pendlowski.


Keynote speakers included:
- Piergiulio Cappelletti: Natural zeolites in pharmaceutical applications
- Wen-An Chiou: Microstructure of clay assembly – from clay particles to shale
- Jin-Ho Choy: Emerging Nano Convergence Science : Clay based Drug Delivery System
- Peter Coveney: Modelling clay-polymer nanocomposites using a multiscale approach
- Will Gates: Relevance of testing specifications for bentonite used in hydraulic barriers - can they be improved?
- Ed Grew: The roles of chance and necessity in the diversification of minerals: is Earth's continental crust unique?
- Jarrod Hart: Process Selection Heuristics in Mineral Processing
- Toshihiro Kogure: Fukushima Nuclear Disaster and Clay
- David Laird: Biochar effects on nutrient leaching in soils
- Bruno Lanson: Crystal structures of defective lamellar compounds and their X-ray identification: Insights on mineral reactions and material reactivity
- Stefano Leporatti: Halloysite Clay Nanotubes as Novel Carriers for Drug Delivery
- M. Liu: Halloysite Nanotubes for Biomedical Application: Opportunities and Challenges
- Paul Nadeau: Reconstructing basin burial and thermal history using shale seismic properties, reservoir fluid inclusions, and advanced modal analysis methods in the Arctic Barents Sea
- Dan Richter: One Physical System: Sir Arthur Tansley's Ecosystem as Earth's Critical Zone
- Eduardo Ruiz-Hitzky: Fibrous vs. layered clays in nanocomposites
- Giora Rytwo: The “magic” in environmental applications of clay based materials
- Thorsten Schaefer: Workshop summary: From microscopic pore structures to transport properties in shales: Which gaps are filled?
- Jan Srodon: The background, motivation and history of the Reynolds Cup
- Tonguc Uysal: Geochronology and isotope geochemistry of clay minerals to study thermal and fluid flow events
- Olivier Vidal: What do chlorites and other phyllosilicates tell us about their conditions of formation?
- Cesar Viseras: Safety assessment of clays used in health care products

**CMS e-News:** As agreed at the Society’s May 2014 Council Meeting and discussed briefly at the Business Meeting
of the CMS, there is a new monthly newsletter coming to subscribers. This newsletter conveys useful information about forthcoming conferences of interest, information about the recently published papers in Clays and Clay Minerals, and snippets of general interest to the clay community which can include information about jobs, grants/funding and other items of broad interest to the CMS.

Recent CMS Workshop Lecture Series volumes include:
• Volume 18, 2014, Materials and Clay Minerals, Lawrence F. Drummy, Editor

2016 CMS Annual Meeting: The Clay Minerals Society will host its 53rd Annual Meeting, June 5-8, 2016 in Atlanta, Georgia. The theme of the conference is Re-surgent Clays. As a part of the pre-conference program, there will be a rare opportunity to visit the kaolin mines in Georgia from where KGa-1 and KGa-2 source clays are procured. A pre-conference workshop on Industrial and Engineering Applications of Clays is also being planned. Many technical sessions will be held where you can learn, as well as share, breakthrough research findings in topics related to:
• Industrial minerals
• Nanoclays and intercalation
• Contaminant sorption
• Critical zone clay minerals
• Clays and tight shales
• Clays and health
• Extraterrestrial clays
• Structure and properties of clays.

Two post-conference field trips to Calhoun Critical Zone Observatory and Stone Mountain are also planned. In addition, Atlanta is the home to Centennial Olympics Park, Coca Cola, CNN Center, The Carter Center, Martin Luther King National Historical Site, Fern Bank Museum of Natural History, one of the world’s largest aquariums, and more. Do not miss the opportunity to experience the unique southern hospitality Georgia has to offer! Please visit www.clays.org for additional information.

By Warren Huff
December / 2015

UNITED KINGDOM
CLAY MINERALS GROUP OF THE MINERALOGICAL SOCIETY (GB and Ireland)
Committee
Chairman: Chris Greenwell (chris.greenwell@durham.ac.uk)
Secretary: Simon Kemp (sjk@bgs.ac.uk)
Treasurer: David Wray (david.wray@greenwich.co.uk)
Board Members: Frances Clegg
Steve Hillier
Chris Jeans
Richard McCabe
Kevin Taylor
Nick Tosca
Jeff Wilson
Neal Skipper
Helen Pendowski
Craig Williams

Meetings in 2014/15
The 2014 Research in Progress meeting was held on the 25th September 2014. The meeting was jointly held with the Environmental Mineralogy Group. There were 45 registrations. Presentations were given by 14 early career researchers and two keynote speakers (Prof Jon Lloyd, Manchester; Prof L. Brinza, Diamond). There were also 10 posters registered. At the end of the meeting Dr Chris Greenwell was presented with the Max Hey medal by Dr Caroline Peacock, Vice-Chair of the Mineralogical Society.

The CMG’s greatest effort was expended in the running of the EUROCLAY 2015 conference. Steve Hillier (CMG) and Kevin Murphy (MinSoc) took the lead in organizing this, the quadrennial meeting of the European Clay Groups Association (ECGA) jointly with the annual meeting of The Clay Minerals Society (CMS) and in association with the International Natural Zeolite Association (INZA) and the Geological Society, held at Edinburgh University from 5 to 10 July. A key aim of the conference was to integrate industrial and academic workers, with three societal themes where clay research flourishes: Energy, Materials and Environment and Health. The leading-edge and extensive scientific program brought together over 500 delegates.

Four days of oral and poster technical sessions with an array of invited speakers were combined with pre-meeting workshops, mid-meeting short courses, four field excursions and an extensive accompanying person’s programme. The conference dinner was held at the stunning ‘Our Dynamic Earth’ venue.
CMG-Sponsored Activities
The CMG also sponsored sessions and speakers at MECC, Dresden and Cement & Concrete (both in September 2014), the BSRG AGM, Nottingham (December 2014) and the Geological Society’s Geomechanical & Petrophysical Properties of Mudrocks, London (Nov 2015).

Bursaries
The CMG disbursed £3.5k to 8 recipients to attend and present at EUROCLAY.

George Brown Lectures
Two George Brown Lectures were delivered at EUROCLAY; the 15th presented by Sergei Krivovichev (‘Structural complexity of zeolites: fundamental approach and applications’) and the 16th presented by Balwant Singh (‘Imperfect minerals can control soil fertility and geochemistry’).

Awards
CMG nominees, David Morgan and Jeff Wilson, were awarded Life Fellowship of the Mineralogical Society and the Mineralogical Society’s Collins Medal respectively.

CMG-Future Activities
As well as the Annual RiP meeting (Manchester, September 2016), the CMG will also support sessions and speakers at the BSRG AGM (Keele, December 2015), MECC (Kosice, July 2016) and EMC (Rimini, September 2016).

The CMG have also launched an online questionnaire to ascertain the views of clay researchers in order to formulate the Group’s future strategy.

By Chris Greenwell and Simon Kemp
December / 2015
OTHER INTERNATIONAL COOPERATION
Soil Science Society of America (SSSA)

International Year of Soils - 2015
In 2015, the Soil Science Society of America (SSSA) celebrated the UN declaration of the International Year of Soils with many other international soil science organizations. In celebration, SSSA volunteer members developed an awareness campaign to emphasize the value of soils and promote the sustainability of our limited soil resources. As we all know, soils are a medium for crop growth and essential to the provision for food and fiber that sustains humanity. Soils buffer the flow of water and are key to nutrient cycling as well as numerous ecosystem functions.

One of the most important groups of soil constituents that are responsible for the important role that soils have in our lives is that of soil clay minerals which consist largely of alumino-silicates with greatly varying composition. The behavior of soils is dominated largely by the presence or absence of these mostly layered clay minerals. The surface chemistry of these lattice clay minerals modified to some extent by the presence of amorphous hydroxy oxides and organic compounds is largely what determines the chemical processes in soils and the benefits that soil systems provide as the foundation for food, natural fiber and fuel production.

SSSA focused on educating the public, students, particularly at the primary and secondary level (kindergarten through twelfth grade), and their teachers on the importance of soils and soil sustainability. Educators were invited to join in discussions through various social media outlets. As part of our efforts, each month SSSA presented a new theme featuring soils. Each theme had an activity page and monthly overview, video, social media, theme-coordinated blog posts and soil-sighting photos, news releases, and educator email. Mineralogy, and soil clay minerals in particular because of their properties mentioned earlier, play a major role in many of the monthly themes including soils and agriculture, soils and health, soils support infrastructure, soils and products and soils, culture and people. If you haven’t had an opportunity, please visit the SSSA International Year of Soils webpages: www.soils.org/IYS.

The 2015 International Year of Soils effort is just the beginning. Plans continue for a sustained emphasis on soils and soil constituents for the next several years. The International Union of Soil Science recently declared an International Decade of Soils. Ideas, activities, and support to further emphasize the importance of soils and soil clay minerals in our lives will be welcome.

Carolyn Olson
January / 2016

World renowned Applied Clay Scientist, Dr. Haydn H. Murray passed away on February 4th, 2015, in Bloomington (IN, USA). According to The Indianapolis Star (2015), he was born in Kewanee, Illinois on August 31st, 1924. During Second World War, he served with the Army Corp of Engineers. Upon his return, Haydn attended the University of Illinois where he earned his Bachelors, Masters and PhD in Geology, specializing in Clay Mineralogy. In 1951, he became professor of geology at Indiana University and a clay mineralogist for the Indiana Geological Survey. In 1957, Dr. Murray left Indiana University to be Director of Research for Georgia Kaolin Company in New Jersey. In 1973, he returned to Indiana University as Chairman of the Geology Department, where he remained until he retired at age 70.

At Indiana University, Dr. Murray advised 68 graduate students and was a member of 60 thesis committees. He received the Lifetime Achievement Award by Professional Geologists of Indiana, Honorary Doctor of Science Degree from Indiana University in 2004 and the Alumni Achievement Award from the Department of Geology at the University of Illinois in 2004. He was also a member of the board of directors for the University of Illinois Alumni Association.

Dr. Murray’s research activities were concentrated on the genesis and industrial applications of clay minerals, particularly kaolins, smectites and palygorskite. He consulted for many companies in 54 countries. He has been chairman of the executive committee of the UNESCO Working Group on Kaolin Genesis (IGCP 23). Dr. Murray published 170 articles, obtained three patents, wrote the book Applied Clay Minerals and was a lead editor of the book Kaolin Genesis and Utilization (CMS Special Publication Number 1). He also contributed to several chapters in the seventh edition of SME’s Industrial Minerals and Rocks.

Dr. Murray served as President of Association Internationale pour l’Étude des Argiles from 1993 to 1997, and his name is included in the AIPEA directory list of members in 1982. A perusal in the old AIPEA Newsletter editions shows that he was a quite active AIPEA member, cooperating in internal committees and in the organization of meetings and/or field-trips. He was a notorious speaker, invited to give lecturer in many technical events in several countries.

Dr. Murray was a distinguished member of several scientific and technical societies, serving them in different positions. Some important achievements can be mentioned:

- president of The Clay Minerals Society (CMS) from 1965 to 1966;
- vice-president of the American Ceramic Society from 1974 to 1975;
- president of the Ceramic Association of New Jersey (CANJ), 1976;
- president of the Society for Mining, Metallurgy & Exploration (SME) in 1988;
- president of the American Institute of Professional Geologists (AIPG), in 1988;
- member of the National Academy of Engineers (NAE), 2003; and so on.

Dr. Murray received numerous awards and tributes, some of which are mentioned below:

- Legion of Honor member;
- Fellow of the American Ceramic Society, 1965;
- Ceramic Association of New Jersey Man of the Year (1971) Award;
- Distinguished service award at Indiana University;
- President’s Thomas Hart Benton medal for distinguished service to Indiana University;
• Indiana University Alumni Association Orwig medal for distinguished service to Indiana University Athletics;
• The Hardinge Award of SME for outstanding contributions to the mineral industry as research scientist, educator, author, lecturer, and business executive; particularly in the field of clay technology, 1976;
• The Marilyn and Sturges W. Bailey Distinguished Member Award of CMS, 1980;
• Fellow of the Indiana Academy of Science, 1989;
• Symposium in Honor of Haydn H. Murray (22 papers) during the 30th annual meeting of CMS in San Diego (CA-USA), 1993;
• Honorary doctorate from the Universidad Nacional del Sur (Argentina), 2001;
• Distinguished Scholar Award from the Indiana Academy of Science, 2005;
• Pioneer in Clay Science Lecture at the 46th annual meeting of the CMS in Billings (MO-USA), 2009; and so on.

Dr. Murray is survived by his wife Juanita, their three children, Steven Murray, Marilyn Elder and Lisa Rotskoff and his grandchildren Samantha Murray, Mark Murray, Reed Elder, Blake Elder, Case Elder, Grant Rotskoff and great grandchildren, Haydn Murray, Zane Murray and Madison Elder and his many friends.

AIPEA would like to express its gratitude to Dr. Haydn H. Murray by his constant cooperation and joint the international community in this plain tribute, sending sincere condolences to Professor Murray’s wife, children and family.

By Daisy Barbosa Alves
February / 2015

AIPEA Newsletter at www.aipea.org/newsletter.html
Recent and Upcoming Meetings

2016

40TH INTERNATIONAL CONFERENCE AND EXPO ON ADVANCED CERAMICS AND COMPOSITES (ICACC’16)
January 24-29th, 2016, Daytona Beach, Florida, USA.
Organizer: The American Ceramic Society
600 N. Cleveland Ave., Suite 210
Westerville, Ohio 43082
Phone: 866-721-3322 or 240-646-7054
FAX: 240-396-5637
E-Mail: customerservice@ceramics.org
Internet: www.ceramics.org/meetings/40th-international-conference-and-expo-on-advanced-ceramics-and-composites

24TH AUSTRALIAN CONFERENCE ON MICROCOPY & MICROANALYSIS
January 31st - February 4th, Melbourne, Australia
Convenor: Eric Hanssen
Internet: www.acmm2016.org/

2ND WORKSHOP ON APPLIED CLAYS - 2ª REUNIÃO SOBRE ARGILAS APLICADAS
March 31st-April 1st, 2016, Rio de Janeiro (RJ), Brazil
Contact: Luiz Carlos Bertolino
Email: lcbertolino@cetem.gov.br

ANNUAL MEETING OF THE ISRAEL SOCIETY FOR CLAY RESEARCH
April 12th 2016, Raanana, Israel.
Contact: Dr. Nurit Taitel-Goldman
The Open University of Israel
Raanana, Israel.
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60TH BRAZILIAN CONGRESS ON CERAMICS - 60º CONGRESSO BRASILEIRO DE CERÂMICA
May, 15-18th, 2016, Águas de Lindoia (SP), Brazil
Chair: Samuel M. Toffoli - ABC / Poli-USP
Organizers: Metallum Congressos Técnicos e Científicos
Av. Otaclio Tomanik, 236 - sala 02
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Internet: www.metallum.com.br/60cbc or www.abceram.org.br
E-mail: cbc@metallum.com.br or abcadm@abceram.org.br

14ÈME COLLOQUE ANNUEL DU GROUPE FRANÇAIS DES ARGILES
May 18-20th, 2016, Poitiers, France
Contact: Philippe Cosenza (IC2MP–Poitiers)
E-mail: gfa2016@sciencesconf.org
Internet: http://gfa2016.sciencesconf.org

10TH SOUTH AMERICAN SYMPOSIUM ON ISOTOPE GEOLOGY
May 22-25th, 2016, Puerto Vallarta, Mexico
Phone: (52) 55 56 22 41 07
E-mail: ssagi10@geofisica.unam.mx with copy to: ssagi2016@gmail.com
Internet: www.ecodsa.com/ssagi/index.php/home

NANOTECH FRANCE 2016 INTERNATIONAL CONFERENCE AND EXHIBITION
June 01-03rd, 2016, Paris, France
Internet: www.setcor.org/conferences/Nanotech-France-2016
53RD ANNUAL MEETING OF THE CMS
June, 5-8th, Atlanta (GA), USA
Internet: http://conferences.illinois.edu/CMS2016/

2ND INTERNATIONAL CONFERENCE ON ATMOSPHERIC, DUST 2016
June, 12-17th, 2016, Castellaneta Marina, Italy
Chair: Saverio Fiore
Dept. of Geoenvironmental and Earth Sciences
University of Bari – Aldo Moro
Via Orabona 4, 40125 Bari - Italy
Phone: +39 080 5442618 (chair), +39 0971 42 7224 (Secretary) and +39 080 544 2614 (Treasurer)
Email: dust@scientevents.com
Internet: www.dust2016.org

GOLDSCHMIDT 2016
June 26 - July 1, 2016, Yokohama, Japan
E-mail: helpdesk@goldschmidt.info
Internet: http://goldschmidt.info/2016/

4TH G3 INTERNATIONAL SEMINAR ON GEOPOLYMERS, GEOCOMPOSITES, AND GEOMATERIALS
June 2016, Limoges, France
French Clay Group
Internet: www.gfa.asso.fr/

8TH MID-EUROPEAN CLAY CONFERENCE – MECC-8
July, 4-8th, 2016, Košice, Slovakia
Organizers: Slovak Clay Group
E-mail: mecc2016@sav.sk
Internet: http://mecc2016.sav.sk/

EUROSOIL 2016
July, 17-22nd, Istambul, Turkey
Chair: Dr. Ahmet Mermut
Contact: Bülent Çelik
Mobil: +90 533 928 13 96
Phone: +90 312 440 41 55
Fax: +90 312 440 41 54
Email: bulent.celik@mci-group.com
Internet: www.eurosoil2016istanbul.org/

MICROSCOPY & MICROANALYSIS 2016
July, 24-28th, 2016, Columbus, OH, USA
Contact: Nicole Guy
E-mail: nicoleguy@conferencemanagers.com
Internet: www.microscopy.org/MandM/2016/

INTERNATIONAL CONGRESS ON CERAMICS - ICC6
August 21-25th, 2016, Dresden, Germany
Chair: Prof. Dr. Alexander Michaelis
Email: info@icc-6.com
Internet: www.icc-6.com

5TH ATLANTIC CONJUGATE MARGINS CONFERENCE 2016
August, 24-26th, 2016, Porto Galinhas, Brazil
Chair: Dr. João Adauto Souza Neto (Federal University of Pernambuco)
E-mail: adauto@ufpe.br
Internet: conjugatemargins.com.br/about/index.html

35TH INTERNATIONAL GEOLOGICAL CONGRESS
August 27th-September 04th, 2016, Cape Town, South Africa
Chair: Jay Barton
E-mail: Jay.Barton@telkomsa.net
Internet: www.35igc.org/

VI INTERNATIONAL WORKSHOP ON LAYERED MATERIALS
September, 5-9th, 2016, Kutná Hora, Czech Republic
Organizer: Jiří Čejka
E-mail: workshop2016@jh-inst.cas.cz
Internet: www.jh-inst.cas.cz/workshop2016/

EMC2016 - 2ND EUROPEAN MINERALOGICAL CONFERENCE
September 11–15th, 2016, Rimini, Italy
Organizing Secretariat: New Aurameeting Srl
Via Rocca d’Anfo, 7 - 20161 Milan, Italy
Phone: +39 02 66203390 - Fax: +39 02 66200418
E-mail: info@emc2016.socminpet.it
Internet: http://emc2016.socminpet.it
5TH MEDITERRANEAN CLAY MEETING (MCM2016)
September 25-29th, 2016, İzmir-Çeşme, Turkey
Organizers: Clay Science Society -Turkey
Email: mcm2016@mcm2016.org
Internet: www.mcm2016.org

15TH WATER-ROCK INTERACTION INTERNATIONAL SYMPOSIUM - WRI-15
October, 16-21st, 2016, Evora, Portugal
Organizers: CPL Meetings & Events
Rua: Rua das Calçadas - Vivenda Pereira 1º Andar Pai do Vento,
2755-277 Cascais, Portugal
Phone: +351 21 400 35 40
Fax: +351 21 406 08 29
Email: secretariat@wri15portugal.org
Internet: http://wri15portugal.org/

15TH INTERNATIONAL CONFERENCE ON THERMOCHRONOLOGY
September, 8-23rd, 2016, Maresias - SP, Brazil
Internet: https://thermo2016.rc.unesp.br/

MS&T'16 - MATERIALS SCIENCE & TECHNOLOGY CONFERENCE AND EXHIBITION, COMBINED WITH ACERS 118TH ANNUAL MEETING
October 23–27th, Salt Lake City, Utah, USA.
Internet: www.matscitech.org/

3RD. ASIAN CLAY CONFERENCE
November, 18-20th, 2016, Guangzhou, China
Chair: Hongping He - Guangzhou Institute of Geochemistry, Chinese Academy of Sciences
Contacts: Dr. Meng Chen - Email: chenmeng@gig.ac.cn
Dr. Qing Zhou - Email: zhouqing@gig.ac.cn
Prof. Runliang Zhu - Email: zhurl@gig.ac.cn
Phone/Fax: +86-20-85297603
Internet: www.asianclay2016.org

24TH BIENNIAL AUSTRALIAN CLAY MINERALS CONFERENCE
To be held in 2016, Melbourne, Australia.
Chair: Will Gates
E-mail: will.gates@monash.edu
Internet: www.clays.org.au

REYNOLDS CUP - 2016
To be held in 2016
Organizer: Reinhard Kleeberg, Freiberg, Germany
E-mail: kleeberg@mineral.tu-freiberg.de

5TH RUSSIAN WORKSHOP BY CLAY MINERALS (RUSSIAN CLAY SCHOOL) – “ARGILLA STUDI-UM-2016”
Autumn of 2016. Russia
Organizers: Russian Clay Group
Contact: vi_kru@bk.ru

2017
41ST INTERNATIONAL CONFERENCE AND EXPO ON ADVANCED CERAMICS AND COMPOSITES
January 22–27th, Daytona Beach (FL), USA
Organizer: The American Ceramic Society
600 N. Cleveland Ave., Suite 210
Westerville, Ohio 43082
Phone: 866-721-3322 or 240-646-7054
FAX: 240-396-5637
E-Mail: customerservice@ceramics.org
Internet: http://ceramics.org/

WORKSHOP ON ‘QUALITATIVE AND QUANTITATIVE ANALYSIS OF CLAYS AND CLAY MINERALS’
February, 20-27th, 2017, Greifswald, Germany
Organizers: Georg Grathoff and Laurence Warr
Greifswald University
Contact: DTTG
Internet: www.dttg.ethz.ch/workshop2017.html

16TH INTERNATIONAL CLAY CONFERENCE – ICC 2017
July, 16-21st 2017, Granada, Spain
Chair: Alberto LOPEZ GALINDO (alberto@ugr.es)
E-mail: chair@16icc.org or secretariat@16icc.org
Internet: www.16icc.org/
INTERNATIONAL CONFERENCE ON APPLIED MINERALOGY & ADVANCED MATERIALS & 13TH INTERNATIONAL CONGRESS OF APPLIED MINERALOGY - AMAM-ICAM2017
June, 11-17th, 2017, Castellaneta Marina, Italy
Chair: Saverio Fiore
Dept. of Geoenvironmental and Earth Sciences
University of Bari – Aldo Moro
Via Orabona 4, 70125 Bari - Italy
Phone: +39 0805442618 (chair), +39 0971427224 (Secretary) and +39 0805442614 (Treasurer)
Email: info@icam-amam2017.org
Internet: www.icam-amam2017.org

7TH CLAY CONFERENCE ON CLAYS IN NATURAL AND ENGINEERED BARRIERS FOR RADIOACTIVE WASTE CONFINEMENT
September, 24-27th, Davos, Switzerland
Organizers: National Cooperative for the Disposal of Radioactive Waste (NAGRA)
Phone: +41 56 437 11 11
Email: sonja.mccullough@nagra.ch
Internet: www.clayconferencedavos2017.com

54TH ANNUAL MEETING OF THE CMS
May (?), Alberta, Canada
Organizer: Clay Minerals Society

17TH NATIONAL CLAY SYMPOSIUM OF THE CLAY SCIENCE SOCIETY-TURKEY
September 2017, Muğla city, Turkey
Organizer: Clay Science Society-Turkey

2018

MEETING OF THE INTERNATIONAL MINERALOGICAL ASSOCIATION - IMA 2018
August, 13-17th, 2018, Melbourne, Australia
Chair: Dr. Stuart J. Mills
Internet: www.ima2018.com/

9TH MID EUROPEAN CLAY CONFERENCE – MECC’18
Croatia
Organizer: Croatian Clay Group

2019

EUROCLAY 2019
July, 1-5th, 2019, Paris. France
Chair: Jean-Louis Robert
Organizer: French Clay Group
Becoming member of AIPEA is recommended to everybody interested in clays and clay minerals. At the moment, the main mean of communication among all members of this association is its website (www.aipea.org). There, all information is concentrated and made available to all AIPEA members, such as updated information from many events that are being organized around the world besides other information that might be of general interest.

The rules of acceptance of new members are defined in the AIPEA Statutes and By-Laws (www.aipea.org/statute.html), as follows:

**Statutes:**

**II. MEMBERSHIP**

3. a) AIPEA may accept as members individuals (individual members, who may also be life members), institutions and companies (corporate members), and national or regional societies (Affiliated Societies) with an interest in clay research or technology.

b) Application for individual or corporate membership shall be made in writing to the ... Treasurer and be accompanied by the appropriate membership fee. Applications from Societies wishing to become Affiliated shall be made to the Secretary General in writing giving relevant information on field of interest, number of members, etc.: if approved by Council (which shall not be required to give any reason for non-approval) the Society shall become Affiliated on payment of the appropriate membership fee.

c) Membership will be for the period for which the membership fee is paid. If it is one year’s dues the member will be in good standing for one year. If the membership fee is not paid, the membership may be cancelled unless there are extenuating circumstances which will be determined by the Council...

**By-Laws:**

“Individuals 65 years of age and older who have been individual members for 12 years or more shall automatically become Life Members on notification to the Treasurer. A Life Member must verify his membership every 4 years coinciding with the year of the International Clay Conference...”

To facilitate the admission of new members, AIPEA made available the Membership Application Form at its web page www.aipea.org/membership.html. Those interested in being part of this organization should fill it out and mail it to the AIPEA Treasurer, who will send information of how to pay the annual fee:

Dr. Jeanne B. Percival  
c/o Geological Survey of Canada  
601 Booth Street  
Ottawa, Ontario, CANADA K1A0E8  
Email: jeanne.percival@canada.ca
MEMBERSHIP APPLICATION FORM

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Your Society

*If you are an individual member of an affiliated Society, give the name of the Society*

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