

Association Internationale pour l'Étude des Argiles International Association for the Study of Clays Internationale Vereinigung zum Studium der Tone Межлунаролная ассоциация по изучению глин

Newsletter N°40

August 2008

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Website: http://www.aipea.org

AFFILIATED SOCIETIES:

Algerian Clay Group Australian Clay Minerals Group Belgian Clay Group (British & Irish) Clay Minerals Group Clay Science Society of Japan Croatian Clay Group Czech National Clay Group Dutch Clay Group (GFA) German-Austrian-Swiss Clay Group (DTTG) Greek Committee of Clay Science and Technology Hungarian Clay Group Israel Society of Clay Research Italian Association for the Study of Clays (AISA) Nordic Society for Clay Research (North American) Clay Minerals Society (CMS) Polish Clay Group Portuguese Clay Group (APA) Romanian Group for the Study of Clays and Clay Minerals Russian Clay Group Slovak Clay Group Slovak Clay Group Spanish Clay Society (SEA) Turkish National Committee of Clay Sciences Ukrainian Clay Group

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1. PRESIDENT'S REPORT

The Association Internationale pour l'Étude des Argiles (AIPEA) is an international association consisting of all of the national Clay Societies in the world. It acts as an umbrella organization to coordinate and facilitate international activities and collaborations relating to Clay Mineralogy. Broadly speaking, the aim of AIPEA is the worldwide promotion of international cooperation in clay research and technology. AIPEA does this mainly by sponsoring the International Clay Conference (ICC) every four years. The 14th edition of this conference will be organized by the *Associazione Italiana per lo Studio delle Argille* (AISA), on behalf of the AIPEA, at Castellaneta Marina (Italy). The entire clay community is invited to participate and there will be a discounted rate for AIPEA Members (see below).

As many of you know, it has been several years since AIPEA circulated an annual newsletter. My profound gratitude goes to Dr. Daisy Barbosa Alves for agreeing to take over responsibility as Secretary-General of AIPEA and produce this issue of the newsletter. In spite of the break in newsletter communications, many positive things have occurred since the last ICC in Tokyo.

In an effort to improve our international communications, AIPEA has created a completely new web site, through the efforts of Dr. Saverio Fiore. The new web site, <u>http://www.aipea.org/</u>, contains information about upcoming meetings and is the focal point for all AIPEA activities. During the process of creating a new web site, AIPEA acquired the domain name aipea.org in order to have a consistent web presence over the coming years. Our thanks go to Dr. Fiore for his tremendous efforts on the web site, and I encourage you to visit the site. Please let Dr. Fiore or me know if you would like to see new information on the site or if you find any errors. AIPEA also has begun its own list server, with the ultimate plan to integrate the list with lists of other national clay societies. The lack of similar lists, with the exception of the Clay Minerals Society list, has hampered efforts to proceed further.

AIPEA is now also an affiliated society of Elements, a new multi-society magazine, and two reports have already been published and are available for all the clay community. Our affiliation with Elements provides a means for AIPEA to communicate with the worldwide mineralogical and geochemical community, thereby increasing awareness of our society and its activities. If you have not already seen copies of this attractive magazine, I encourage you to locate a copy.

The AIPEA Council met on July 22, 2007, on the campus of the University of Aveiro (Portugal) to consider several topics of interest. On this occasion, the decision was made to resume this Newsletter, which has the purpose to circulate news about the activities of the many Clay Mineral Societies/Groups from the entire world. The newsletter will be part of the new updated AIPEA Website (<u>http://www.aipea.org</u> - see below). The AIPEA Council participated actively during Euroclay 2007 and a new student awards program was inaugurated, to include the best oral and poster student presentations. The student awards are in addition to the existing AIPEA awards programs and are designed to encourage young clay

scientists, who receive both recognition and a cash award. Figures 1 to 3 illustrate some moments from the well-organized Euroclay Conference.

AIPEA continues as an active affiliated society to the International Union of Geological Sciences (IUGS - http://iugs.org) and has shared regular correspondence including IUGS E-Bulletins and several official documents. In addition, AIPEA was invited to participate in the Second Ordinary Session of the IUGS Council, which took place in Oslo, Norway, in conjunction with the 33rd International Geological Congress. Dr. Saverio Fiore, an AIPEA Councilor, acted as our representative to the Council meeting. Among the several projects started by IUGS in 2007 is the IGCP 545 'Clays and Clay Minerals in Africa', to be developed during 2007-2011, with the chair Georges-Ivo E. Ekosse (South Africa, IUGS E-Bulletin #24). Our inclusion as an affiliated society within the IUGS continues to be an effective means for AIPEA to integrate into international geological activities.

As the global Society faces a decline in the number of clay scientists, it is increasingly important that AIPEA members actively participate in the life of our society. At the same time, there appears to be a renaissance in related sciences where clay minerals play an important role, in fields such as chemistry and materials science. Therefore, it appears useful to our science to involve new members in AIPEA and thereby boost the activities of our society. We need a more integrated, cohesive clay scientist community at both the national and international level. Several activities are planned for the next ICC to accomplish these goals, and I look forward to hearing from our members with ideas for increasing AIPEA's role. I also hope that a greater percentage of our affiliated societies can contribute to our next Newsletter, and I encourage all national society representatives to respond promptly to our Secretary-General's requests for information.

With best regards and the hope to see you all in Italy next summer,

David Bish Bloomington, Indiana, USA



Figure 1: Members of the AIPEA Council and other clay scientists gathered during the Gala Dinner organized by Euroclay 2007 in Aveiro, Portugal.



Figure 2: Several participants of Euroclay 2007 took part in a one-day post-meeting field-trip to clay pits belonging to Adelino Duarte da Mota S.A. under the guidance of Dr. Joao Coroado (Centro Tecnologico da Ceramica e do Vidro, Portugal).



Figure 3: Mariana Rebelo, one of the winners of the best student oral presentations at Euroclay 2007, receiving her prize from AIPEA President, Prof. David Bish. Elected during the 13th International Clay Conference at Tokyo (Japan), in 2005, the current AIPEA officers and councillors for 2005-2009 are as follows.

AIPEA OFFICERS FOR 2005-2009:

Prof. David L. BISH, President Department of Geological Sciences - Indiana University 1001 E 10th St. - Bloomington IN 47405 U.S.A. Phone: 812-855-2039 - Facsimile: 812-855-7899 Email: bish@indiana.edu

Prof.Takabumi SAKAMOTO, Vice-president Department of Environmental Security Systems - Faculty of Risk and Crisis Management Chiba Institute of Science 3, Shiomi-cho, choshi, Chiba 288-0025 Japan Phone & Facsimile: +81-479-30-4645 Email: tsakamoto@cis.ac.jp

Prof. Robert A. SCHOONHEYDT, Past-president Department of Interphase Chemistry - Katholieke Universiteit Leuven Kardinaal Mercierlaan 92 - B-3001 Heverlee (Leuven) Belgium Phone: +32-16-32-1592 Facsimile: +32-16-32-1998 Email: robert.schooheydt@agr.kuleuven.ac.be

Dr. Daisy BARBOSA ALVES Secretary-General Petroleo Brasileiro S.A. Research Center (CENPES) Rua Horácio Macedo 950 Cidade Universitária - Ilha do Fundão - Rio de Janeiro – RJ - CEP.: 21941-915 Brazil Phone: (+55-21)-3865-6438 - Facsimile: (+55-21)-3865-4562 Email: daisy@cenpes.petrobras.com.br

Dr. Jeanne B. PERCIVAL, Treasurer Geological Survey of Canada 601 Booth Street, Ottawa - Ontario KIA OE8 Canada Phone: +1-613-992-4496 - Facsimile: +1-613-943-1286 Email: jperciva@nrcan.gc.ca

AIPEA COUNCIL MEMBERS FOR 2005-2009:

Dr. Peter KOMADEL, Councillor Slovak Academy of Sciences Institute of Inorganic Chemistry Dúbrabská cesta 9 - SK-845 36 Bratislava Slovak Republic Phone: +421-2-5941-0464 - Facsimile: +421-2-5941-0444 Email: uachkomp@savba.sk

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Dr. Norbert CLAUER, Councillor Centre de Geochimie de la Surface - CNRS 1, rue Blessig - 67084 Strasbourg Cedex France Phone: 03-8836-7235 - Facsimile: 03-9024-0559 Email: dircqs@illite.u.strasbg.fr

Dr. Saverio FIORE, Councillor Istituto di Metodologie per l'Analisi Ambientale - CNR C.da S. Loja - 85050 Tito Scalo (PZ) Italy Phone: +39-0971-427-246 - Facsimile: +39-0971-42-7294 Email: fiore@imaa.cnr.it

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REPRESENTATIVES OF 14TH ICC

Dr. Eleonora BONIFACIO, DIVAPRA - Chimica Agraria University of Turin Via Leonardo da Vinci, 44 - 10095 GRUGLIASCO (TO) Italy Phone: +39-011-670-8516 - Facsimile: +39-011-670-8692 Email: Eleonora.Bonifacio@unito.it

Dr. Fabio TATEO, Representative of 14th ICC Istituto di Geoscienze e Georisorse – CNR c/o Dip. Geologia Via Giotto, 1 - 35137 Padova Italy Phone: +39-049-827-2062 - Facsimile: +39-049-827-2070 Email: mailto:tateo@igg.cnr.it

COMMITTEES

Teaching committee Prof. Darrell G. SCHULZE Agronomy Department - Purdue University 11580 Lilly Hall - West Lafayette IN 47907-1150 USA Phone: +1-705-494-8062 - Facsimile: +1-765-496-2926 Email: schulze@dept.agry.purdue.edu

Nomenclature committee

Prof. Stephen GUGGENHEIM University of Illinois at Chicago Department of Geological Sciences 845 West Taylor Street, M/C 186 Department of Earth and Environmental Sciences, Chicago Illinois 60607-7059 U.S.A. Phone: +1-312-996-3263 Facsimile: +1-312-413-2279 Email: xtal@uic.edu Thanks to the great efforts of the AIPEA President, Dr. Bish, and to Dr. Fiore, the new AIPEA webmaster, we are happy to announce that the new AIPEA website is up and running. The entire clay community now has a beautiful and modern website, intended to provide information about all aspects of the clay sciences. The site can be found at <u>www.aipea.org</u> as well as at <u>aipea.org</u>.

Dr. Fiore and his team have produced an informative site, with the following permanent sections:

- Historical overview
- Statutes and by-laws
- Council
- Membership
- Publications
- Newsletter
- Committees
- Affiliated Societies

Some items are already available for consulting and others are under construction. Part of the AIPEA history has been already recovered but all AIPEA members are encouraged to check the information already gathered and provide additional contributions. If errors are noticed, please notify us so that we can make the proper correction.

There is a sense that it would be interesting also to have old reports linked to the AIPEA Website, such as historical documents, the composition of old committees, lists of scientists who have received prizes, *.pdf files of past newsletters etc. Most of all, we would be happy to share AIPEA good memories. For this, we count on the cooperation of the entire international community of clay scientists.

We also encourage the many Clay Societies around the world to remain in contact with AIPEA for an efficient advertisement of their activities. It would be useful if all affiliated societies created their own homepage, with links to the AIPEA website in the future. Some national society web sites are already listed. For now, please inform the AIPEA Secretariat of upcoming activities concerning clay minerals around the world so they can be published on the AIPEA Website.

4. AIPEA COUNCIL MEETING DURING EUROCLAY 2007

Present:

Prof. David Bish, Indiana University (President), Prof. Takabumi Sakamoto, Chiba Institute of Science (Vice-president), Prof. Robert A. Schoonheydt, Katholieke Universiteit Leuven (Pastpresident), Dr. Daisy Barbosa Alves, PETROBRAS Research Centre (Secretary general), Dr. Jeanne B. Percival, Geological Survey of Canada (Treasurer), Dr. Peter Komadel (Slovak Academy of Sciences), Dr. N. Clauer (Centre de Geochimie de la Surface), Dr. Saverio Fiore (Consiglio Nazionale delle Ricerche) and Prof. Celso S.F. Gomes (Universidad de Aveiro).

AGENDA

- 1. Welcome by the President
- 2. President's report
 - Episodes, Elements IUGS participation Industry contacts, participation, and support Discussion of Statutes and Bylaws Student awards at this meeting and future meetings Inclusion of "non-member" societies Status of list server, better links with national clay societies
- Treasurer's report, J. Percival Dues List of affiliated societies Supporting industrial members
- 2009 meeting update, S. Fiore Session on education School for young scientists Other suggestions for symposia
- Newsletter status, Daisy Barbosa Alves, new Secretary-General Dr. J. Theo Kloprogge, Queensland University of Technology (Secretary-General),
- Committee assignments Nominating committee--no report Bradley Award (5) AIPEA Fellow (council) AIPEA medal (6 + TOLSA member) Student travel (3 + president)
- 7. Education committee, D. Schulze

- 8. Nomenclature committee, S. Guggenheim Compilation of past AIPEA and CMS reports
- 9. Web site, owner of aipea.org, R. Schoonheydt
- 10. Asbestos commission, S. Fiore
- 11. Other Old Business
- 12. New Business

Financial Statement: July 29, 2005 to December 31, 2006

OPENING BALANCE (JULY 29, 2005)

Tel: -1-613-992-4496; Facsimile: 1-613-943-1286

E-mail: jperciva@nrcan.gc.ca

	US	\$31326.42	
	Canadian (\$1491.76CDN)	1216.87	
	GIC	26224.75	
	Total (\$US)		\$58,768.04
REVENUES & F	RECEIPTS		
Membership dues			
	Corporate	\$100.00	
	Individual	60.00	
	Societies	2946.47	
	Term Deposit Interest	576.51	
	Subtotal		\$3682.98
EXPENSES			
	AIPEA Medal-travel	\$1506.36	
	Printing & mailing costs (Bradley)	530.23	
	Service charges	200.68	
	Subtotal		(\$2237.27)
	CLOSING BALANCE		\$60213.75
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Dr. Jeanne B. Pero	cival, P.Geo		
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601 Death Street	y of Canada		
Ottown Ontonio			
Canada K1A 059			
Canada KIA UE8			

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Financial Statement: January 1, 2007 to December 31, 2007

OPENING BALANCE 2007

\$60213.75

REVENUES & RECEIPTS

Membership dues

Individual	\$30.00	
Societies	4637.95	
Term Deposit Interest	1061.20	
Savings Account Interest	14.81	
Subtotal		\$5743.96

EXPENSES

AIPEA Student Awards	\$430.00	
Service charges	109.02	
Subtotal	(\$539.0	2)
CLOSING BALANCE	\$65418.0	59

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7. INTERNATIONAL UNION OF GEOLOGICAL SCIENCES ANNUAL REPORT

REPORTING FORM FOR CONSTITUENT BODIES - 2007

- 1. **TITLE OF CONSTITUENT BODY:** AIPEA, Association Internationale pour l'Etude des Argiles
- 2. FIT WITHIN IUGS SCIENCE POLICY: The aim of AIPEA is the worldwide promotion of and cooperation in clay research and technology. The tools to achieve these goals are: 1) international clay conferences; 2) stimulation of excellent young clay scientists through grants and awards; 3) rewarding of active clay scientists with a brilliant career in clay research; 4) stimulation of communication along clay researchers and technologists.
- ORGANIZATION: AIPEA is an international association consisting of all of the national clay societies in the world, acting as an umbrella organization to coordinate and facilitate international activities and collaborations.
- EXTENT OF NATIONAL/REGIONAL/GLOBAL SUPPORT FROM SOURCES OTHER THAN IUGS: AIPEA is supported by dues from national clay societies (not all national societies have sufficient resources and organization to pay dues) and by income from its quadrennial meetings.

5. INTERFACE WITH OTHER INTERNATIONAL PROJECTS:

6. CHIEF ACCOMPLISHMENTS IN 2007:

- participant in EUROCLAY 2007, the quadrennial meeting of the European Clay Groups Association (ECGA), July 2007, with ~400 participants from more than 40 different countries - Council meetings - initiation of student best speaker and poster awards

AIPEA began a new process this year whereby the Society gives cash awards for the two best oral and poster presentations at the EUROCLAY Conference and the International Clay Conference. This year's winners for oral presentation were:

- Mariana da Silva Rebelo et al. (University of Aveiro, Portugal) with the paper: Mineralogical and physic-chemical properties of some Portuguese Mesocenozoic clays used as healing clays; and
- Vanja Biševac et al. (University of Zagreb, Croatia) with the paper: New data on metamorphic event in the eastern part of Mt. Papuk, Slavonia, Croatia

The winners for poster presentations were:

- Mathieu Gautier et al. (University of Orleans, France) with the poster: Interaction between ammonium smectite and some simple organic molecules: pollution prediction in waste landfill; and
- Ewa Káfunková (Academy of Sciences, Czech Republic) with the poster: Photofunctional materials base on intercalated layered double hydroxides.
- 7. CHIEF PROBLEMS ENCOUNTERED IN 2007: No significant problems were encountered in 2007.
- 8. CHIEF PRODUCTS: The chief products of AIPEA in 2007 were the annual Newsletter and the proceedings of the quadrennial meeting. In addition, the AIPEA Nomenclature Committee compiled all of the past AIPEA and CMS nomenclature reports into one document to be presented on the AIPEA and CMS web sites.

- SUMMARY OF EXPENDITURES IN 2007: Expenditures for 2007 were very low and consisted of only the funds necessary to support the student speaker and poster program and minor expenditures for upkeep of our web site.
- 10. WORK PLAN FOR NEXT YEAR: Our plan for the coming year is to facilitate formation of new national clay societies, particularly in Asia. Discussions are continuing with Indian clay societies. We also plan to continue to build stronger relations with the clay minerals industry, both to provide more interactions between scientists and industry and to seek industrial support for AIPEA. Activities on the AIPEA Educational and Nomenclature Committees will continue.
- 11. CRITICAL MILESTONES TO BE ACHIEVED NEXT YEAR: see 10.
- 12. ANTICIPATED RESULTS/PRODUCTS NEXT YEAR: Our primary product for next year will be our annual newsletter, coming out in early 2008. We will also move the AIPEA web site to a new server and will have an entirely new web content. The compilation of an entirely new list of participating national societies will enable us to update the AIPEA list server to allow rapid communication among all national clay societies.
- 13. COMMUNICATION PLANS: Newsletter 2008; new website; up-to-date AIPEA list server
- 14. SUMMARY BUDGET FOR NEXT YEAR: No IUGS support is requested.
- 15. **POTENTIAL FUNDING SOURCES OUTSIDE IUGS:** Funding comes partly from some member societies. Industrial support will be sought in the future.

review chief accomplishments results over the last 5 years:

PERIOD 2001-2006: The Past President discussed the possibility of broadening AIPEA Council representation, and a new member from South America was added. Our South American member was named the AIPEA Secretary-General in 2007. The President also proposed that the Council form stronger and better collaborations with large and strong existing organization such as the Clay Minerals Society and the Japanese Clay Society. One of the new Council members will be a liaison officer with the European Clay Groups Association (ECGA). The Past President attempted to increase the proportion of member societies paying dues in an effort to bolster the finances of AIPEA and this effort is continuing. The President and Council decided that upcoming newsletters will be sent electronically to individual country representatives and hard copies will be mailed at domestic postage rates, thereby saving large amounts on postage. The general feeling of the Council is that the newsletter will appear both in print and on the website. The Secretary-General of AIPEA will collect the reports from the affiliated societies at the end of each calendar year and produce an electronic version of the newsletter. It was decided that all affiliated societies would be listed on the front page of the newsletter. The next newsletter will appear in the first guarter of 2008. The Past President began an effort to get members more actively involved with AIPEA and make them feel that they get value for money. One of our members and past councillor, Prof. Emilio Galan, will formulate a plan for the new President to improve member participation. Possible mechanisms include offering registration discounts to more international conferences and not only to the International Clay Conference. We are facing a worldwide decline in the number of clay scientists but at the same time there appears to be a renaissance in related sciences where clay minerals play an important role such as in

chemistry and in materials science.

16. SUMMARIZE ANTICIPATED OBJECTIVES AND WORK PLAN FOR THE **NEXT 5 YEARS:** The AIPEA web site will be transferred and completely revamped in early 2008, using the previous domain name, aipea.org. Extension of the website will include an update with the new council, details of affiliated societies, links to other societies, other links of interest to clay science, list of past award and medal winners, lists of past student awardees, committee reports/glossary of terms from the nomenclature committee, and advertisements for our active awards programs. An AIPEA list server has been started and will continue to be modified to include all representatives of national clay societies. New national clay societies will be encouraged to join AIPEA. AIPEA successfully petitioned for affiliate status in the mineralogical periodical Elements, giving us more international visibility. AIPEA will next meet at the International Clay Conference (ICC) in 2009 in Italy, at which time the AIPEA Council will have formal meetings and new officers and councillors will be chosen. The ICC is being organized by Saverio Fiore of Italy. Organization for the meeting is well underway, and detailed scientific sessions are now being planned. The conference dates are from June 14-20, 2009, at the Calanè Conference Centre, Nova Yardinia Resort, an enchanting place located at a few kilometers from Castellaneta Marina, on the Ionian Sea. The conference web site is: http://www.14icc.org. The teaching committee is continuing to investigate ways to expand clay science teaching. Proposed mechanisms include the inclusion of teaching workshops at our meetings, focusing on teaching graduate students and postdoctoral fellows about the fundamentals of clays science. Such workshops would be aimed not only at clay scientists but also at those in the materials and chemistry fields who work with clay materials. A new committee on hazardous minerals will be initiated in 2008, primarily through the efforts of Dr. Saverio Fiore. It is envisioned that this committee will be charged with acting as a source of information on clay minerals, focusing particularly on available data on biological interactions. Amendments to the AIPEA bylaws will be proposed to codify the new student awards program and the new hazardous minerals committee.

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8. 14TH INTERNATIONAL CLAY CONFERENCE – CASTELLANETA MARINA, ITALY

The Associazione Italiana per lo Studio delle Argille (AISA), on behalf of the Association Internationale pour l'Étude des Argiles (AIPEA), is pleased to invite you to the 14th International Clay Conference (14ICC).

The theme of the Conference is: Micro et Nano: Scientiae Mare Magnum

TENTATIVE SCIENTIFIC PROGRAM

Sessions:

BIO-CLAYS INTERFACE & LIFE'S ORIGIN: BC1 - Clays & Biomolecules: From the Origin of Life to Medical Applications BC2 - Clays - Living Organisms Interactions

CERAMICS & ENGINEERING

- CE1 Clays in Archaeology & Cultural Heritage
- CE3 Clays in Traditional Ceramic Industry
- CE4 Colloids & Rheology
- CE5 Desiccation and Fracture in Clay
- CE6 Hetero-Modulus Ceramics for Technical Application
- CE7 Modified Clays & New Applications
- CE8 Processing and Properties of Ceramic Materials

GEOLOGY & GEOCHEMISTRY

GG1 - Bentonite: Genesis, Properties, and Uses

GG2 - Clay Mineral Association of the Cretaceous - Paleogene and Paleogene-Eocene Boundary Events

- GG3 Clay Minerals and Fluid Flow through Faults
- GG4 Clay Minerals & Climate Change
- GG5 -Clays in Geological Processes

HEALTH & ENVIRONMENT

- HE1 Asbestos Monitoring & Analytical Methods
- HE2 Clays and Natural Zeolites in Medical Applications
- HE3 Clays as Friendly Environmental Materials
- HE4 Health Effects of the Reactivity of Airborne Minerals
- HE5 Moisture Transport through Clay
- HE6 Nanoporous Materials as Adsorbents for Hydrogen and Methane Storage
- HE7 Speciation of Trace Elements in Soils and Sediments
- HE8 Stability of Clay Minerals in Geological Radioactive Waste Disposal
- HE9 The Interaction of CO2 with Clay Minerals
- HE10 Interactions between Clays and Inorganic and Organic Pollutants

MINERALOGY & CRYSTALLOGRAPHY

- MC1 Clay Minerals in Extraterrestrial Environments
- MC2 Clay Synthesis
- MC3 Crystal Chemistry and Structure of Clays
- MC4 Layered Double Hydroxides
- MC5 Serpentines as Hot Clays
- MC6 Simulation and Theory of Clay Minerals and Interfaces
- MC7 Structural Characterization of Lamellar Compounds

NANO & POROUS MATERIALS

- NM1 Functional Hybrid Nanofilms
- NM2 Industrial Applications of Nanoclays
- NM3 Mesoporus Silica as Molecular Sieves
- NM4 Metal Nanoparticles Catalyzed Organic Synthesis
- NM5 Natural Zeolites: From Genesis to Applications
- NM6 Polymer-Clay Nanocomposites: Advantages, Properties, and Uses
- NM7 Polymer-Clay Nanocomposites: Preparation Techniques and Theoretical Formulations
- NM8 Self-Assembly from Clay Particles: From Nano to Macro

SOILS & SEDIMENTS

SS1 • Clays and Soil-Forming Processes: an Evergreen

SS2 • Contributions of Soil Mineralogy to Solve Agricultural, Environmental, Technological and other Practical Problems

MISCELLANEOUS UM1 • Teaching Clay Science UM2 • Dynamics of Fluids in Nanoporous Regimes UM3 • General Topics

PROPOSED EXCURSIONS:

Two half-day visits, free of charge for participants and accompanying persons, will take place during the 14th ICC. Destinations are "Sassi di Matera", a truly prehistoric urban agglomerate, and Trulli di Alberobello, a little town mainly composed of stone dwellings with conical roofs and built without any mortar. Both are UNESCO World Heritage sites.

Field excursions will be arranged to the Aeolian Islands and to Sardinia. The Aeolian Island visit will take place before the Conference, whereas the Sardinia visit will occur after the conference. The duration of these visits is expected to be four days.

Several excursions for accompanying guests will also be offered.

AWARDS AND GRANTS

BRADLEY AWARD, which is financed by AIPEA and provides financial assistance to young scientists interested in attending the 14ICC.

AIPEA MEDAL, which is awarded to honour active clay scientists in recognition of outstanding contributions to clay science.

GIOVANNI NOVELLI PRIZE which is sponsored by the Associazione Italiana per lo Studio delle Argille and it is intended to favour the research activity of young scientists (under 35) devoted to applied clay sciences.

LUIGI DELL'ANNA AWARD which is sponsored by the Associazione Italiana per lo Studio delle Argille and it is intended to favour the participation of young Italian scientists to the 14ICC.

STUDENT BEST SPEAKER AND POSTER AWARDS, sponsored by AIPEA, whereby the two best oral and poster presentation during the ICC receive cash awards.

DATES TO REMEMBER

May 15, 2008:	Registration commences
June 1, 2008:	Abstracts submission
December 31, 2008:	Abstract submittal deadline
March 2009:	Abstract acceptance
March 31, 2009:	Field trip deadline
April 30, 2009:	Registration fee deadline for the inclusion of abstracts in the Book of
-	Abstracts and Programme

WEBSITE

All information about 14ICC will be shown at the conference website at: <u>http://www.14icc.org</u>, which can also be found on the AIPEA home page.

DISCOUNT RATE FOR AIPEA MEMBERS

The registration for the conference opens on 19 May 2008 by filling in the Conference Personal Page. The registration fee includes several services. A discounted rate is reserved for AIPEA members.

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9. NATIONAL AND REGIONAL CLAY GROUPS

At the end of 2007, the AIPEA Secretary-General sent an e-message (AIPEA Memorandum n. 001/2007) to our affiliated societies, requesting information on their activities in order to complete this section of the AIPEA Newsletter. Reports from the affiliated societies that responded are reproduced below. We thank all societies for their cooperation, and we would like to take this opportunity to encourage all AIPEA Members to check the AIPEA website for the information on the appropriate national society and send any corrections to the Secretary-General and the webmaster. Working together, we can continue AIPEA's aim of worldwide promotion of clay research and technology and of international cooperation in clay research and technology.

Daisy Barbosa Alves AIPEA Secretary-General

CZECH REPUBLIC CZECH NATIONAL CLAY GROUP

The Czech National Clay Group organized two seminars in the year 2006. Both of them took place in Prague – in the building of the Institute of Rock Structure and Mechanics of the Academy of Sciences of the Czech Republic. The first meeting was held on June 7th. On this occasion, two lectures were presented:

- Z. Štaffen: Mineral composition of Cretaceous sediments and their influence on utilizing in the Czech architecture.
- D. Koloušek: Hydrothermal stabilizing polymers.

The autumn meeting was held on November 22nd. Two lectures were delivered:

- P. Rojík: Recent Fe-minerals of Sokolov coal basin (Northern Bohemia).
- J.K. Novák: Atypical development of the cement producing marlstones at Úpohlavy open pit as related to the origin of resistant klinker nodules.

On July 3rd, 2006, Dr Jiří Šindelář, PhD (born 19 March, 1929) died. He was an active member of the Czech Clay Group and in the first years of the activity of this scientific society, he executed the function of secretary.

During the year 2007, the Czech National Clay Group organized again two seminars both in the building of the Institute of Rock Structure and Mechanics in Prague. The spring meeting was held on May 23rd. The following lectures were delivered:

- J. Pinkas: Chemistry of silicates and aluminosilicates.
- F. Škvára: Alkaline activated materials geopolymers.

The autumn meeting was held on November 28th. Two contributions were presented:

- F. Kovanda: Intercalation of organic anions into the structure of double layer hydroxides.
- P. Kovář: The utilization of molecular modelling in the analysis of hydrotalcite intercalated by organic anions.

Professor Dr. Jiří Konta, Dr. Sc. at the occasion of his 85 years prepared the essay of his bibliography: "A foolhardy and perhaps enlightening reflection of my bibliography", published in the bulletin of the Czech Clay Group.

On October 22nd, 2007, Ing. Dr. František Kupka (born 17th January, 1926), a long-time member of the Czech National Clay Group, died.

During 2006-2007 six numbers (32-37) of the bulletin of the Czech National Clay Group, named "Informátor" were edited.

On September 29th– October 1st 2008 the Czech National Clay Group is preparing its 18th Clay Conference in southern Bohemia (near the historical town Český Krumlov). English is the conference language. Themes:

- Phyllosilicates in the sediment-forming processes.
- Evaluation and discussion of two books edited by renowned editorial houses. (1) Meunier A. (2005): Clays. (2) Bergaya, F. Theng B.K.G., Lagaly G. (editors) (2006): Handbook of Clay Science.
- Clay materials in traditional and modern technologies.
- Utilization of metakaolin in geopolymers and building materials.

Following field trips were prepared:

- Gothic, Renaissance and Baroque historical buildings including Castle and their construction stones in Český Krumlov.
- Ceramic clays and diatomite deposits in Borovany.
- Moldavite locality at Besednice.
- Graphite mine at Český Krumlov.

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Participants from abroad are welcomed.

By Karel Melka March / 2008

GERMANY-AUSTRIA-SWITZERLAND GERMAN-AUSTRIAN-SWISS CLAY GROUP

The German Clay Group Association (Deutsche Ton - und Tonmineralgruppe –DTTG) was founded in 1972 in Kiel (Germany) during a meeting of 38 German clay scientists. The first chairman was Prof. Karl Jasmund. Within the following years, DTTG was growing quickly. Very soon, people from different scientific fields and companies working with clays in Germany, Austria, and Switzerland became members. In 2000, the German Clay Group is a federation of mineralogists, geologists, chemists, soil scientists and ceramic engineers of all German speaking countries and counts 110 members. The DTTG induced a vice versa corporate membership with the German Soil Science Association in 1999.

The DTTG holds annual meetings at various places mainly in Germany, Austria, and Switzerland. The last meeting was held in Valkenburg (Netherlands) from Oct. 4 to 6, 2006. The next meeting will be held in Zakopane (Poland) from Sept. 22 to 27, 2008 together with the 4th Mid-European Clay Conference MECC.

Every two years an international DTTG-Workshop on qualitative and quantitative analysis of clays and clay minerals is organized. The last workshop took place in 2007 from Mar 5 to 9 in Hannover (Germany). The next workshop will be in spring 2009 at the ETH Zurich (Switzerland). Participants, both from universities and from industrial laboratories are welcome.

The DTTG committee elected in Valkenburg consists of Helge Stanjek (President), Reiner Dohrmann (Treasurer), Michael Plötze (Secretary), and five associated members.

For further updated information: <u>http://www.dttg.ethz.ch</u> or contact the DTTG secretary, Michael Plötze, ETH Zurich, e-mail: <u>www_dttg@web.ethz.ch</u>.

By Michael Plötze March / 2008

ITALY ITALIAN ASSOCIATION FOR THE STYDY OF CLAYS - AISA

The national activity of the Italian Clay Group (AISA - Associazione Italiana per lo Studio delle Argille) has concentrated on the general assembly and the "Clay Day". The 2007 "Clay Day" was devoted to "Clays in Geodynamic Problems" and was organized by Ciro Giampaolo at the Roma Tre University. Several speakers contributed to this particular day and this was also the occasion for new members to join the group.

AISA also sponsored the "Natural Environmental Constraints on Health" symposium which took place during the international meeting and seminar entitled "Ceramic Cells and Tissues" and was held in Faenza. The symposium was chaired by Fabio Tateo and was dedicated to Giovanni Novelli who passed away in July. Giovanni Novelli was a very well-known member of this Italian group, and was one of the few honorary members, highly appreciated for his

professional competence, generosity and human kindness. He contributed to the evolution of the Italian group by donating his scientific library to the group – now at the Institute of Methodologies for Environmental Analysis, the National Research Council, in Tito Scalo (PZ) – and also sponsored an international award. A brief biography on Giovanni Novelli will be published in the minutes of the meeting.

During 2007, the activities for the preparation of the 2009 International Clay Conference got underway under the chairmanship of Saverio Fiore (IMAA-CNR, Potenza). This will be held in an extremely comfortable resort situated in the heart of a pinewood on the Mediterranean coast. Another important result was the publishing of the web site of the meeting (http://www.14icc.org/).

An open call for submitting scientific session proposals and chair positions ended at the end of the year and received more than 70 proposals.

In order to promote the young researchers' attendance at the international conferences (Euroclay and the International Clay Conference), the Italian group set up the "Luigi Dell'Anna" award a few years ago. The winner in 2007 was Luca Aldega (Roma Tre University).

The recent announcement of the "Luigi Dell'Anna" award is tied up with the 2009 International Clay Conference. The "Giovanni Novelli" award will also be published shortly to favour the research activity of young European scientists (under 35 years old) who have distinguished themselves by their research on the industrial application of smectites.

A brief course was organized after the national meeting of the Italian Federation of Earth Sciences. The course was entitled "The Analysis of a Clay, a Scientific Adventure" organized by Massimo Setti. This was a two-day course. On the first day there were general lectures and on the second case studies.

List of executive members of AISA

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> By Fabio Tateo February / 2008

JAPAN THE CLAY SCIENCE SOCIETY OF JAPAN

1. Committee The following officers were elected for the fiscal years 2007 and 2008.

President:	Dr. T. Sakamoto, Chiba Institute of Science
Vice president:	Dr. M. Shidime, Volclay Japan
	Dr. K. Okada, Tokyo Institute of Technology

Secretary:	Dr. H. Yamada, National Institute Materials Science
Treasurer:	Dr. A. Inoue, Chiba University
Principal editors:	Dr. R. Kitagawa, Hiroshima University (Nendo Kagaku)
-	Dr. E. Narita, Iwate University (Clay Science)

2. The 51th Annual Meeting

The 51th Annual Meeting of the Clay Science Society of Japan was held at Hokkaido University from 12 to 14, September 2007. It was organized by Dr. R. Kitagawa. A total of 115 papers including 59 poster presentations were presented. The program also included a guest lectures and a symposium entitled "Advanced materials research based on clays and layered materials".

The following guest lecture was held.

• Dr. Y. Watanabe (Hokkaido University): Colloid aggregation and their effects on filtration performance of monolithic ceramic membrane.

The following symposium presentations were held.

- Dr. K. Kuroda (Waseda University): Clays as raw materials for materials research.
- Dr. T. Matsumoto (Osaka Univ.): Visualization of surface charge by surface probe microscopy.
- Dr. T. Kimura (Kyoto Univ.): Magnetic processing of non-magnetic materials
- Dr. Y. Einaga (Keio Univ.): Photoswitching magnetic thin films ms based on clays.
- Dr. T. Sasaki (National Institute Materials Science): Functionalization by controlling the stacking of inorganic nanosheets.
- Dr. H. Inoue (Tokyo Metropolitan Univ.): Photochemistry in nanolayered environments.

3. Awards

The society presented awards to the following members at the occasion of the annual meeting.

- I Clay Science Society of Japan Award was made to Dr. T. Kogure, University of Tokyo.
- I Encouraging Young Scientist Award was made to Dr. T. Ando, Chiba Institute of Science and Dr. R. Ishii, Advanced Institute of Science and Technology

4. Publication

Clay Science Society of Japan published four issues of Nendo Kagaku (Journal of the Clay Science Society of Japan in Japanese), and two issues of Clay Science every year. In the fiscal year 2007, Vol. 46, No. 1, 2, 3, and 4 for Nendo Kagaku, and Vol. 13, Nos. 4 and 5 for Clay Science were published.

> By Makoto Ogawa March / 2008

POLAND POLISH CLAY GROUP

In 2007 the Polish Clay Group:

- organized the Polish Annual Symposium,
- took part in the Euroclay 2007 (Aveiro, Portugal),
- awarded prizes to two young scientists for their works in order to finance their participation in the Euroclay 2007,
- initiated the activity to organize the 4th Mid-European Clay Conference in 2008 (MECC'08), in Poland.

The 17th annual symposium of the Polish Clay Group was held in Cracow on May 25-27th, 2007. It was organized as workshops. Five lectures were delivered. Its chairman was Prof. Jan Środoń (Polish Academy of Sciences, Cracow). Besides, several posters were presented and a field session was organized. The following lectures were presented:

- Prof. Ewa Stępkowska Variability and correlation between physical and mechanical properties of clays
- Doc. Jacek Długosz Clay minerals in luvisoils formed from acid Poznań till
- Dr. Czesław August Secondary clay minerals in mantle enclaves of Lower Silesian basaltoids
- Prof. Zenon Kłapyta Modified silicates as anionic sorbents
- Dr. Paweł Bylina Low-grade metamorphism of Permian mafic rocks of the Gorzów Wielkopolski block: age and mechanism of this process

Field session entitled "Stones used in Romanic buildings in Cracow" was led by Prof. Jan Bromowicz (AGH University of Science and Technology, Cracow).

The materials of this symposium will be published in the periodical *Mineralogia Polonica* and in the website www.ptmin.agh.edu.pl.

During the accompanying meeting of members of the Polish Clay Group, the problems related with the organization of the 4th Mid-European Clay Conference (MECC'08) in Poland were discussed. The members of this Group took part in the Conference of the Euroclay 2007 in Aveiro (Portugal). Prof. J. Środoń delivered a plenary lecture and two other lectures were presented by members of Polish delegation, as well as 16 posters.

In 2007, the Polish Clay Group awarded two prizes (500 Euros) for the young scientists not only from Poland (Ewa Sokalska) but also from another country of post-soviet block and ex-Yugoslavia. This time it was the Hungarian mineralogist Elszebet Tot. The aim of this prize was to cover partially the costs for participation in the Euroclay 2007 in Aveiro. Then data on awarded publications on their authors are presented in the website of the EGGA.

In 2008, the Polish Clay Group will organize the 4th Mid-European Clay Conference MECC'08 in Zakopane. Thanks to the help and splendid cooperation of Colleagues of the National Clay Groups of the Czech Republic, Slovakia, and Hungary, we have obtained a

financial support from the Visegrad Found. Detailed information concerning this Conference is available in the website <u>www.mecc08.agh.edu.pl</u>.

By Katarzyna Gorniak February / 2008

SLOVAKIA SLOVAK CLAY GROUP

Council: (1 January 2005-30 September 2008)

Peter Komadel (president) Peter Uhlík (vice-president), Ivan Janotka (secretary), Jana Madejová, Vladimír Šucha

The main international activity of the members of the group was presentation of research results on international conferences, dominantly those having clay research among the principal topics of the meeting, such as the 3rd Mid-European Clay Conference MECC06 in Opatija, Croatia in September 2006. 16 members of SCG co-authored 4 lectures and 9 posters presented on *Euroclay 2007* in Aveiro, Portugal, in July, 2007, and 12 of them (S. Andrejkovičová, J. Bujdák, A. Czímerová, A. Čeklovský, J. Hrachová, P. Komadel, J. Madejová, H. Pálková, M. Pentrák, I. Štyriaková, V. Šucha and J. Valúchová) attended the conference.

LECTURES

- 1. J. Bujdák, N. Iyi: Optical properties based on oxazine 4/hexadecyltrimethylammonium montmorillonite films.
- P. Komadel, S. Andrejkovičová, J. Hrachová, J. Madejová, I. Janotka, J. Stucki: Properties of potential use of a ferruginous bentonite in environmental protection.
- 3. J. Madejová: Application of the infrared techniques in clay minerals investigation.
- 4. <u>V. Šucha, A. Czímerová, J. Bujdák</u>: Surface properties of illite-smectite detected by interactions with rhodamine 6G dye.

POSTERS

- 1. <u>A. Czímerová, Ľ. Jankovič, J. Bujdák</u>: Effect of the exchangeable cations on the spectral properties of methylene blue in clay dispersions.
- <u>A. Čeklovský, J. Bujdák</u>: Interaction of porphyrin dyes with layered-silicate templates: an UV-VIS and fluorescence approach.
- 3. J. Frankovská, S. Andrejkovičová, I. Janotka: Sodium bentonite-attapulgite filler for Geosynthetic clay liners with increased resistance to salinary waters.
- 4. J. Hrachová, J. Valúchová, J. Madejová, P. Billik, <u>V.Š. Fajnor, P. Komadel</u>: Mechanical treatment of unmodified and organically modified montmorillonite.
- 5. J. Hrachová, I. Chodák, <u>P. Komadel</u>: Montmorillonite as filler for nanocomposites with elastomeric matrix.

- A. Mockovčiaková, <u>I. Štyriaková</u>, Z. Orolínová, M. Matik: Modification of natural zeolite sorption purposes and its bacterial regeneration.
- <u>H. Páłková</u>, M. Zimowska, Z. Olejniczak, and E. M. Serwicka: Alumination of porous clay heterostructures prepared from synthetic trioctahedral smectite via templating process.
- 8. <u>M. Pentrák, J. Madejová</u>: Alterations of clay minerals induced by acid and alkali treatments.
- <u>I. Štyriaková</u>, M. Mišič: Microbial processes of mineral dissolution of silicate minerals and formation of clays.

M. Osacký and I. Stríček presented in September in Lille, France, two posters at the 3rd international meeting *Clays in natural and engineered barriers for radioactive waste confinement:*

- M. Osacký, V. Šucha, J. Madejová, Ľ. Puškelová, P. Komadel, M. Miglierini, A. Majerník, P. Uhlík: Smectite interaction with metal iron
- 11. <u>I. Stríček, P. Uhlík, V. Šucha, J. Madejová, I. Galko</u>: Mineral stability of bentonite in the Mock-Up-CZ.

Several members of the SCG have been involved in the activities of the project Scientific and technological transfer in research and development of natural nanomaterials (project JPD 3 2004/4-058, principal investigator P. Uhlík (until August 2007) and S. Šoltés (from September 2007), Project Coordination Board P. Uhlík (S. Šoltés), I. Janotka, P. Komadel, I Kraus, J. Madejová) co-financed by European Social Fund. Thematic days, workshops and excursions were organized and e-learning courses were prepared. The main objective of this project of the Faculty of Natural Sciences, Comenius University, in collaboration with Institute of Inorganic Chemistry and Institute of Construction and Architecture, Slovak Academy of Sciences, is support of scientific and technological transfer within and among the employees and students in R&D institutions in Slovakia.

Thematic day **"Natural nanomaterials as additives to polymers", Bratislava,** 30 May 2006, 64 participants

P. Komadel: Bentonites and smectites

J. Madejová: Characterization of natural and modified clay nanomaterials by IR spectroscopy

J. Jančář, Czech Republic: Nanocomposite polymer materials for special applications

J. Bujdák: Effect of properties of clay mineral on interactions with polymers

M. Omastová: Polymer nanocomposites of enhanced electric conductivity

I. Chodák: Nanocomposites based on polymeric matrices and layer silicates, preparation and applications

Workshop "New trends in spectroscopic methods used for natural nanomaterials research", Smolenice Castle, 13-16 November, 2006, 50 participants

B. A. Goodman, Austria: Review of the spectroscopic methods
J. Bujdák: UV-VIS spectroscopy for characterization of natural nanomaterials
S. Petit, France: Infrared spectroscopy

M. A. Karakassides, Greece: Raman spectroscopy and clay minerals

J. Grandjean, Belgium: Nuclear magnetic resonance of clays and clayey materials

M. A. Karakassides: The application of EPR spectroscopy to studies of clay minerals

E. Murad, Germany: Introduction to Mössbauer spectroscopy

J. Majzlan, Germany: X-ray absorption spectroscopy: XANES

J. Majzlan: X-ray absorption spectroscopy: EXAFS

Workshop "Quantitative mineralogical XRD analysis of natural nanomaterials and its importance for technological applications in industry", Bratislava, 25-26 June 2007, 46 participants

J. Środoń, Poland: Problems of quantitative XRD mineral analyses and their solutions by non-Rietveld methods

R. Kleeberg, Germany: Basic principles and theory of Rietveld quantitative XRD

R. Kleeberg: Calculation of peak profiles in BGMN win and Autoquan - demonstration

J. Środoń: Demonstration and practical exercise for the work with Quanta and RockJock 1

R. Kleeberg: Treatment of quantification problems in BGMN win and Autoquan - demonstration

Workshop "Nanomaterials on the base of Al, Fe and Mn oxyhydroxides - identification methods and their significance as heavy metal sorbents", Bratislava, 27-28 June 2007, 46 participants

- B. Lanson, France: Crystal-chemistry of nanocrystalline lamellar manganese oxides: A key to the understanding of trace metal element fate in the environment I
- E. Murad, Germany: Basic characterization of iron oxides and their properties
- S. Peiffer, Germany: Concepts to describe interactions between metal hydroxide surfaces and dissolved substances (surface complexes, charge formation, specific interactions)
- S. Peiffer: Specific interactions with ferric oxides, schwertmannite, applications
- E. Murad: Identification and characterization of Fe oxides by X-ray diffraction, Mössbauer and infrared spectroscopies and chemical extraction: possibilities and limitations
- T. Grygar, Czech Republic: NIR-Vis-UV diffuse reflectance spectroscopic and voltammetric analysis of Fe oxides and related species

Excursion to deposits of natural nanomaterials

Central and East Slovakia and East Hungary, 3-5 September 2007, 40 participants

Visited deposits and occurrences: Kopernica – bentonite, Dolná Ves – illite/smectite, Stredné Plachtince – glauconitic sand, Nižný Hrabovec – zeolite, Streda nad Bodrogom – marecanite,

Visited producers of industrial products Žiar nad Hronom, Envigeo – bentonite for applications in chemical and building industry, Lučenec, Novoker - tiles, Bystré, Zeocem –

zeolite for agriculture and building industry, Mád (Hungary) - Geoproducts based on bentonite and zeolite

Thematic day **"Application of natural materials in protection of environment"** Bratislava, 25 February 2008, 45 participants

<u>I. Janotka</u>: Introduction to the 1st part: materials, aggressivity, cement bentonite suspensions <u>I. Janotka</u>: Aggressivity of cement-bentonite suspensions

- I. Janotka, A. Špaček: Building materials for progressive engineering technologies
- A. Špaček, I. Janotka: Standardization of environmental aggressivity affecting building materials
- L. Krajči: Properties and application of cement-bentonite suspension in environmentally loaded surroundings
- <u>I. Janotka</u>: Introduction to the 2nd part: soils, geosynthetic clay liners, geotechnics

J. Frankovská: Determination of geotechnical characteristics of natural materials

P. Turček: Improvement of soil properties

- M. Matys: Slip tests of geosynthetic mats
- R. Baslík: Protection of life environment and constructions with geosynthetic products and related materials

E-learning courses were prepared in the Slovak language:

- 1. Natural nanomaterials (V. Šucha)
- 2. X-ray diffraction analysis (P. Uhlík)
- 3. Methods of quantitative phase analysis of components (P. Uhlík)
- 4. Electron microscopy (P. Uhlík, M. Čaplovičová)
- 5. Infrared spectroscopy (J. Madejová)
- 6. Mössbauer spectroscopy (P. Komadel)
- 7. NMR spectroscopy (P. Komadel)
- 8. UV-VIS spectroscopy (J. Bujdák)
- 9. Fe in natural nanomaterials (P. Komadel)
- 10. Charge modification in clay minerals (J. Madejová, J. Bujdák, P. Komadel)
- 11. Colloidal properties of natural nanomaterials (J. Bujdák)
- 12. Natural nanomaterials in geocomposites (I. Janotka)

Defended PhD thesis by members of the Slovak Clay Group:

Slávka Andrejkovičová: *Properties of bentonite from Liekovec deposit and its possible environmental applications*, Institute of Inorganic Chemistry, Slovak Academy of Sciences, and Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava, defended on 26 March 2008

Jana Hrachová: Organic modifications of montmorillonites and their applications in polymer (nano)composites, Institute of Inorganic Chemistry, Slovak Academy of Sciences, and

Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava, defended on 26 March 2008

By Peter Komadel September / 2008

SPAIN SPANISH CLAY SOCIETY - SEA

The Annual General Assembly of the Spanish Clay Society (SEA) 2007 took place on November 16th 2007 in Sevilla (Centro de Investigaciones Isla de la Cartuja, C/ Americo Vespucio 49) within the celebration of a One-Day Scientific Meeting of our Society. The General Assembly approved the organization of a Trilateral Meeting with the Clay Minerals Society (USA) and the Clay Society of Japan in 2010 in Sevilla. The General Assembly addressed a special remember to the late SEA members Dr. J.M. Martín-Pozas and Dr. C. Fernandez Nieto, both deceased in the last year.

The One-Day Meeting was organized by Dr. Tomás Undabeytia (Instituto de Recursos Naturales de Sevilla, CSIC) with the collaboration of Prof. José Luis Pérez-Rodriguez and Dr. Angel Justo (both from the Materials Science Institute of Sevilla, CSIC) and was attended by 50 participants. Dr. Javier Cuadros from the Department of Mineralogy of the Natural History Museum of London (United Kingdom) introduced the invited lecture on "El circo de las arcillas: más difícil todavía" (*The Circus of Clays: still more difficult*). They were also exhibited 20 posters and among them were chosen the winners of the two prizes sponsored by the SEA (Diploma and 300 Euros) to young researchers participating in the event. The Committee chaired by Dr. Javier Cuadros and participated by Dr. Tomás Undabeytia and Dr. Manuel Jordán Vidal bestowed honours on:

- Mr. Marcial Gabino Márquez in the topic related to **Geological Aspects of Clays** for the poster "Avances en la determinación y cuantificación de halloysita en caolines mediante DRX. Aplicación al caolín de Burela (Lugo), (Advances in the determination and quantification of halloysite in kaolins by XRD. Application to the study of the kaolin from Burela (Lugo)) by P. Aparicio, M.G. Márquez, E. Galán, A. Miras & J.C. Fernández-Caliani)
- Ms. Almudena Gómez-Avilés in the topic related to **Physico-Chemical Aspects of Clays** for the poster "Intercalación de compuestos macrocíclicos tipo silacrowns en esmectitas" (*Intercalation of silacrown-type macrocyclic compounds in smectites*) by A. Gómez-Avilés, P. Aranda, M. Darder & E. Ruiz-Hitzky.

An important number of members of the SEA have actively participate in the Euroclay 2007 held in Aveiro, introducing invited, oral and poster communications. During the Meeting Dr. Sadok Letaïef from the University of Ottawa (Canada) and member of the SEA, was honored with the Martin-Vivaldi Award sponsored by the SEA (Fig. 4), for his work on "Nanohybrid materials from the intercalation of ionic liquids in kaolinite" co-authored by Dr. C. Detellier. He was also the recipient of the 2007 German Clay Group DTTG Award for the same work.



Figure 4: Dr. Sadok Letaïef received the diploma of the Martín-Vivaldi Award 2007 from Prof. Jan Srodon (President of the European Clay Groups Association - ECGA) in the presence of Prof. Eduardo Ruiz-Hitzky (President of the SEA. on the left) and Prof. Fernando Rocha (Organizer of the Euroclav2007, in the middle).

Members of the SEA have also participated during 2007 in the organization of meetings and other events related to diffusion of knowledge on the field of Clays and Clay Minerals:

- Dr. P. Aranda and Dr. M. Darder organized the "International Workshop on Progress in Hybrid & Biohybrid Nanostructured Materials Based on Clay Minerals" held in the Materials Science Institute of Madrid, CSIC, on 20th July.
- Dr. J. Jiménez Millán (University of Jaen) organized the "XXVII Reunión Científica de la Sociedad Española de Mineralogía" (SEM 2007) that took place in Jaen from September 11th to 14th together with the Workshop "Diagenesis and low-temperature metamorphism. Theory, methods and regional aspects".
- Prof. J. Cornejo (IRNASE-CSIC) organized the 14th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region that took place from the 10th to the 14th October in Sevilla.

The XXI Scientific Meeting of the SEA will be held jointly between the Spanish Clay Society and the Spanish Mineralogical Society (SEM) in Zaragoza next September 16^{th} to 19^{th} , and the Chair of the Organizing Committee is Dr. Blanca Bauluz, Department of Earth Sciences, University of Zaragoza, C/ Pedro Cerbuna 12, 50005 Zaragoza (Spain); the website is: http://semsea08.unizar.es/, e-mail: ins2008@unizar.es; and phone: + 34 976 762249, + 34 976 761096 or + 34 976 761098; Facsimile: + 34 976 761106.

> By Pilar Aranda February / 2008

UKRAINE UKRAINIAN CLAY GROUP

Historically, the main clay activity in Ukraine was initiated in 1949 by academician F. D. Ovcharenko at the Institute of Inorganic Chemistry (Kiev, Ukraine). The main directions were related to investigation surface chemistry, adsorption, electro-surface and stability phenomena of clays, their rheological properties, and different industrial applications (clay application as drilling mud, moulding component, medical and pharmacological applications, etc.).

During recent years (2007), the members of different groups have issued several articles, examples of which include:

- Mineral compositions and colloidal properties of Tomashpol, Varvarovka, Grygorovka, Neporotov, Pyszevkii and Transcarpathian clays (deposits of Ukraine);
- Adsorption properties of different ionic form of clays and acid-modified clays, biosorption capacity on the clay minerals, heat of immersions (microcalorimetric investigations), thermal characteristic and kinetics of drying;
- Electro-surface properties of clays, negative adsorption, relations between hydrophilic and ionic exchange of natural and acid activated montmorillonite;
- Enhanced electrokinetic remediation of soil and electro-chemical deactivation of radioactively contaminated clay containing sludge;
- Regulation of fluidity of highly concentrated suspensions, rheological and technological properties of mud fluids based on the Ukrainian clays (Ilnitsa, Dashukovka, Grygorovka, Neporotov) in dependence of their mineralogical composition and degree of substitution;
- Organoclays, structure and properties of heterocomposites clays-liquid crystals and claypolymers systems;
- Application of finely dispersed clay sorbents in ultra-flocculation for purification of water from organic contaminants, heavy metals and radio nuclides;
- Structure and properties of soil and artificial soils, bottom sediments and humic substances
- Application of clay filler in leather manufactures.

Scientific works were presented at different clay-, nano-, and colloid-related conferences, such as:

- 2nd International Conference on Nanosized systems: Structure, properties, technologies, 2007, at Kiev, Ukraine.
- 5th International Conference on Problems of Industrial Heat Engineering. 2007, Kiev, Ukraine.
- Annual Ovcharenko Clay Seminar, 2007-2008, Kiev, Ukraine.
- 6th Symposium on Electrokinetic Remediation, 2007, Spain.
- Baltic Polymer Symposium 2007 Druskininkai, Lithuania.

Two PhD theses were successfully defended in 2007. The following universities, institutes and companies were involved in the activity: Kiev Polytechnical University; Ukrainian Aviation University; Ukrainian State Scientific Centre of Environmental Radiogeochemistry; NASU Institute of BioColloid Chemistry; NASU Institute of Geochemistry, NASU Institute

of Colloid Chemistry and Water Chemistry; NASU Institute of Physics; Zeolite Ltd., Kiev, Ukraine; Faculty of Chemistry, Uzhgorod National University; Institute of Hydrobiology; Department of Analytical Chemistry, Ivan Franko National University; Lviv Academy of Commerce; Kiev National University of Technologies & Design.

By Nikolai Lebovka March / 2008

UNITED STATES OF AMERICA CLAY MINERALS SOCIETY (NORTH AMERICA) - CMS

The Clay Minerals Society's (CMS) 44th Annual Meeting was held in Santa Fe, New Mexico, on 2-7 June 2007. The theme of the meeting was "Enchanted Clays", a reference to the stark, but beautiful New Mexico landscape. The meeting was hosted by Sandia National Laboratories, Los Alamos National Laboratory and the University of New Mexico. It was organized by Drs. Randall Cygan, Jeff Greathouse, George Guthrie, and Dewey Moore. Dr. Paul Schroeder, Department of Geology, University of Georgia, received the Jackson Mid-Career Clay Science Award (Fig. 5) and presented a lecture entitled "Life at the edge: Clay mineralogy, microbiology, and the International Kamchatka Microbial Observatory". Dr. Spencer Lucas, New Mexico Museum of Natural History, gave the Pioneer in Clay Science Lecture, which was entitled "Twenty-five years plus of research on impacts and mass extinctions". Neither the Brindley Award Lecture nor the Bailey Awards were presented this year.

There was a total of 155 papers, including 33 posters. Sessions were divided into the following areas:

- Carbon sequestration and stabilization by clays, 5 + 3 papers + 1 poster
- Characterizing clay minerals, 10 papers + 4 posters
- Clays and archeology, 6 papers
- Clays and environmental processes, 11 + 6 papers + 5 posters
- Clays in extreme environments, 5 papers
- Clays in oil shales and kerogen-bearing sediments, 7 papers + 2 posters
- Clays as nanomaterials, 4 + 10 papers + 4 posters
- Clays in soils and sediments, 5 + 6 papers + 3 posters
- General papers, 5 papers + 3 posters
- Molecular simulation of clays, 7 papers
- Zeolites, 6 papers + 11 posters

There were two field trips. The pre-conference field trip was on the eastern edge of the Rio Grande rift (in the Cerrillos Hills and Española Basin, Fig. 6). A half-day trip on June 5th visited the Harding pegmatite and included an adobe demonstration. The pre-meeting workshop was on "Carbon stabilization by clays in the environment: Process and characterization methods".



Figure 5. Paul Schroeder receiving the Jackson Award from CMS President Richard Brown.

(reprinted with permission, see http://www.sandia.gov/clay/photos.htm for additional photos)

Figure 6. The hunt is on for bentonite, at near Devil's Throne in Cerrillos.

(reprinted with permission, see http://www.sandia.gov/clay/photos.htm for additional photos)

The latest CMS Workshop volumes are available for purchase (member prices are discounted from the listed price). Order forms and other information may be obtained at http://www.clays.org/publications/CMSWorkshopLectureSeries.html Recent Workshop volumes are:

- Volume 15, Clay-based Polymer Nano-composites, CMS Workshop Lectures, \$30 (Kathleen A. Carrado and Faiza Bergaya, eds.), 278 pp.
- Volume 14, Methods for Study of Microbe-Mineral Interactions (2006), CMS Workshop Lectures, \$30 (Patricia A. Maurice and Leslie A. Warren, eds.), 166 pp.
- Volume 13, The Application of Vibrational Spectroscopy to Clay Minerals and Layered Double Hydroxides (2005), CMS Workshop Lectures, \$26 (J. T. Kloprogge, ed.), 285 pp.
- Volume 12, Molecular Modeling of Clays and Mineral Surfaces (2003), CMS Workshop Lectures, \$26 (J. D. Kubicki and W. F. Bleam, eds.), 229 pp.
- Volume 11, Teaching Clay Science (2002) CMS Workshop Lectures, \$26.00 (A. Rule and S. Guggenheim, eds.), 223 pp.

The 45th Annual Meeting of The Clay Minerals Society was held April 5 - 10, 2008 in New Orleans, Louisiana. This meeting was held with the annual meeting of the American Chemical Society and was organized by Dr. Brenda Ross, Cottey College. Hailiang Dong, Miami University, organized the pre-conference workshop: Clay Surface Redox Processes and Characterization Techniques on April 5.

By S. Guggenheim March / 2008

2ND INTERNATIONAL CONGRESS ON CERAMICS

June 29th- July 3rd, 2008, Verona, Italy Organized by: International Ceramic Federation Additional information: Congress Secretariat Agenzia Polo Ceramico Soc.Cons.a.r.l., Via Granarolo 62, 48018, Faenza, Italy Telephone: +39 0546 670311 Facsimile: +39 0546 670399 E-mail: icc2@icc2.org Internet: webmaster@icc2.org Technical Secretariat: Laura Saragoni

ALUMINIUM AND SILICON IN SOILS AND THE ENVIRONMENT -ALUSIV

September 3-5th, 2008, Aberdeen, Scotland Organized by: Clay Minerals Group (MinSoc) with the British Society of Soil Science Additional information: Contact: Steve Hillier or Jane Lund E-mail to <u>AluSiV@macaulay.ac.uk</u> Internet: http://www.minersoc.org/pages/groups/cmg/cmg.html

9TH INTERNATIONAL CONGRESS FOR APPLIED MINERALOGY - ICAM

September 8-10th, 2008, Brisbane, Australia Organized by: Australasian Institute of Mining and Metallurgy (AusIMM) Additional information: Miriam Way, Events Manager Alison M McKenzie, Senior Coordinator, Conferences & Events The AusIMM, PO Box 660, Carlton South, Victoria Australia 3053 Telephone: +61 3 9658 6123 Facsimile: +61 3 9662 3662 Email: alisonm@ausimm.com.au Internet: http://www.icam2008.com

4TH MID-EUROPEAN CLAY CONFERENCE, MECC"08

September 22-27th, 2008, Zakopane, Poland. Organized by: Polish Clay Group (on behalf of the Clay Groups from Croatia, Czech Republic, Hungary, Slovakia, Poland and Germany-Austria-Switzerland). Information: Katarzyna Górniak (chairperson) AGH University of Science and Technology Faculty of Geology, Geophysics, and Environmental Protection al. Mickiewicza 30 30-059 Kraków, Poland E-mail: mecc08@agh.edu.pl Internet: www.mecc08.agh.edu.pl

XXI SCIENTIFIC MEETING OF THE SPANISH CLAY SOCIETY

September 16-19th, 2008, Zaragoza (Spain) Organized by: Spanish Clay Society (SEA) and the Spanish Mineralogical Society (SEM) Information: Dr. Blanca Bauluz (chairperson) Department of Earth Sciences, University of Zaragoza C/ Pedro Cerbuna 12, 50005 Zaragoza, Spain Telephone: + 34 976 762249, + 34 976 761096 or + 34 976 761098 Facsimile: + 34 976 761106. E-mail: ins2008@unizar.es Internet: http://semsea08.unizar.es/

JOURNEES DE LA FEDERATION FRANCAISE DES MATERIAUX: TECHNIQUES D'ASSEMBLAGE POUR CONDITIONS EXTREMES

September 25-26th 2008, Nancy, France Organized by: Fédération Francaise des Materiaux Information: Internet: <u>http://www.vide.org/FFM2008/appel.html</u>

18TH CLAY CONFERENCE IN CZECH REPUBLIC

September 29th – October 1st, 2008, Krumlov, Bohemia. Organized by: Czech National Clay Group Information: CLAYS Institute of Rock Structure and Mechanics Academy of Sciences CR V Holešovičkách 41, CZ-182 09 Prague 8, Czech Republic E-mail: <u>stastny@irsm.cas.cz</u>

INTERNATIONAL WORKSHOP ON ADVANCED CERAMICS - IWAC03

November 6-8th, 2008, Limoges, France Organized by: French Group of Ceramics (GFC) and of the European Ceramic Society (ECerS). Information: Conference SecretariatIWAC03 Pôle Européen de la Céramique ESTER Technopole, BP 6911 87069 LIMOGES Cedex, France Tel: +33 555 38 16 21 Facsimile: +33 555 38 18 62 E-mail: contact@cerameurop.com Contact: Elizabeth BOYER Internet::www.iwac03.com

CONFERENCE SUR LES MATERIAUX ARGILEUX D'AFRIQUE CENTRALE (COMAAC2008)

November 19-21st, 2008, Yaoundé, Cameroun Organized by: Université de Yaoundé I (Cameroun) Information: E-mail: dnjop@yahoo.fr and charles.nkoumbou@ensg.inpl-nancy.fr

7TH COLLOQUE DU GROUPE FRANÇAIS DES ARGILES

April 2009, Toulouse, France Organized by: Groupe Français des Argiles Information: Internet: http://www.gfa.asso.fr

46TH ANNUAL MEETING OF THE CLAY MINERALS SOCIETY -CMS

June 6-11th, 2009, Billing, Montana, USA Organized by: The Clay Minerals Society Information: Contact: Richard Brown E-mail: <u>rbrown@uyoben.com</u> Internet: www.clays.org

14^{TH.} INTERNATIONAL CLAY CONFERENCE

June 14-20th, 2009 Castellaneta Marina, Italy Organized by: Associazione Italiana per lo Studio delle Argille (AISA), on behalf of Association Internationale pour l'Etude des Argiles (AIPEA) Information: 14ICC - IMAA – CNR C. Santa Loia 85050 Tito Scalo (PZ), – Italy Telephone: +39.0971.427294. Facsimile: +39.0971.427295 E-mail: <u>secretaria@14icc.org</u> Internet: <u>http://www.14icc.org</u>

20TH GENERAL MEETING OF THE INTERNATIONAL MINERALOGICAL ASSOCIATION

August 21-27th, 2010, Budapest, Hungary Organized by: International Mineralogical Association Information: Internet: http://www.univie.ac.at/Mineralogie/IMA_2010/

TRILATERAL MEETING OF CLAY MINERALS (PROVISIONAL)

To be held in 2010 in Sevilla, Spain Organized by: Spanish Clay Society (SEA), Clay Minerals Society (USA) and the Clay Society of Japan Information: Not yet available

11. AIPEA MEMBERSHIP APPLICATION FORM

Fees: \$30.00 USD/4 years individual; \$15.00 USD/4 years student or retiree; \$100 USD/4 years corporate sponsor. **Note:** Sponsoring Societies pay dues on behalf of their members. To send electronically, please contact Treasurer by email.