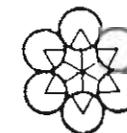


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ASSOCIATION INTERNATIONALE POUR L'ETUDE DES ARGILES - INTERNATIONAL
ASSOCIATION FOR THE STUDY OF CLAYS -- INTERNATIONALE VEREINIGUNG ZUM
STUDIUM DER TONE - МЕЖДУНАРОДНАЯ АССОЦИАЦИЯ ПО ИЗУЧЕНИЮ ГЛИН

newsletter

February, 1987, n° 23

Secr. Gen. A.J. Herbillon, Croix du Sud, 1 - B.1348 Louvain-la-Neuve, Belgium

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PRESIDENT'S PODIUM

Dear Clay Scientists, dear Colleagues,

We who are active in the field of theoretical or applied clay science are well aware of the significance of our science for the economies of our respective countries and for human progress in general. Volumes have been written on what clay matter has been to man throughout millenia of his history, how vitally important it is today for most industrial branches, agriculture, forestry, the development and protection of the environment. Scientists from 48 countries who are involved in research of clay minerals and clay materials for most part enjoy the benefit ensuing from their membership of Association Internationale pour l'Etude des Argiles (AIPEA). According to its statutes, AIPEA promotes international cooperation in clay research and technology. Its activities include : a) the organization of meetings - such as International Clay Conferences -, of field excursions and of visits to centres of clay research and technology; b) the issue of publications on clay research and technology and of a periodical Newsletter to inform members of activities concerned with clay research; c) cooperation with other organizations having an interest in clay research and technology. One of the most significant and today quite regular activities undertaken by national clay societies or clay groups joined in broader units is the publication of clay journals, conference proceedings and/or monographs.

I consider AIPEA Newsletter a suitable outlet for mentioning the special kind of intimate relationship gradually emerging between the clay scientist and his clay journals. At present this concerns above all the journals Clays and Clay Minerals (the journal of the Clay Minerals Society, USA), Clay Minerals (the journal of the European Clay Groups), and Applied Clay Science (an international journal on the application and technology of clays and clay minerals, Elsevier, the Netherlands), but also Clay Science (The Clay Science Society of Japan), and Clay Research (The Clay Minerals Society of India). There exist many other periodicals in this field which, although not specializing solely in clay minerals and their accumulations, still provide significant information about clay matter suiting the needs of other sciences : geological, technical, agricultural, etc. In addition there are book releases of Proceedings of the International Conference (AIPEA) and some conferences of the European Clay Groups (Euroclay Meetings) and also of national, state or joined clay groups in different countries. A fine job has been done also by volumes of the International Symposia on the Genesis of Kaolin.

We cannot wait to lay our hands on fresh issues of clay journals, new volumes from conferences, to discover new facts, the outlines of new information, fundamental interpretations of both new and older data, critical evaluation of hitherto accrued knowledge, syntheses, information on new research methods. To us, this undying relationship is a major source of inspiration and reference for comparing our own data with those produced by other authors.

Better fate lies ahead of special journals or periodicals proceedings focusing on a single branch of science, than of many a fiction book returned to the shelf after one reading to be reduced to a dead value. True, many natural science monographs today become outdated more quickly than in the past. But a well edited clay journal or conference volume cultivates new offshots in each successive issue or volume - and these are well worthy of attention.

Even in this late stage of the 20th century, in this age of electronic wizardry, clay journals and conference proceedings are still the main source of scientific information. They are the best we have in this age of electronics, nuclear power and a vast array of nuclear radiations.

This special kind of friendship between the clay scientist and his clay journals inevitably evolves - as time passes by - into an invisible friendship with authors and prominent editors. In my opinion, AIPEA Newsletter should also devote due publishing space to editors of leading clay journals. We all are aware of the fruit of their painstaking efforts but we should also learn more about the backstage aspects of their work. We should want to know their concept of an ideal author, an ideal form of the gentle art of publishing, to coin a phrase. AIPEA looks at their work with sympathy.

1986 was a relatively calm year for AIPEA. On September 7-10, 1987, the Sixth Meeting of the European Clay Groups (6th Euroclay) will take place in Seville, Spain. This international meeting will be significant not only for European clay scientists but also for their colleagues in other parts of the world. Professor Emilio Galan, Chairman of the 6th Euroclay, hopes that also the AIPEA Council will meet in Seville. We sincerely welcome his kind invitation and are going to avail ourselves of this opportunity, as was envisaged at the Council session held during the 8th International Conference of AIPEA in Denver. We trust that the 6th Euroclay will create good conditions for extending AIPEA by new members from among scientists of those countries who have so far been represented on a fairly small scale. We shall continue to

strive to extend both the ranks of AIPEA and the number of countries from which they recruit. I trust that the AIPEA Council will find an ideal formula on fulfilling this important task even before the 6th Euroclay is over.

May I wish all AIPEA members and institutions involved in clay matter research a happy, prosperous new year of 1987.

Jiri Konta

COUNCIL AFFAIRS

Minigrants for Teaching Aids

At the 1985 International Clay Conference in Denver funds were set aside for minigrants to promote the development of teaching aids on clay mineralogy. Plans are being developed to show the products in a special session during the AIPEA meetings in Strasbourg, France, in 1989. Since the total amount currently available is only about \$ 1000, interested persons are encouraged to participate who have slide sets, computer software or other teaching materials that could be reproduced or developed at a modest cost. Quarterly decisions on proposals will be made as far as possible. Breadth of selections will be favored among structure, morphology, chemical properties, methods, etc.

Grants will be made on the basis of content, clarity, originality and usefulness to students and teachers of clay mineralogy.

Interested persons should submit his or her name and address, a brief description of the teaching aid, and the audience to which it is directed. An example of the item (in duplicate when possible) and instructions on how it is to be used should be included. If it is necessary to return the item it should be requested.

It is anticipated that teachers in universities, institutes and industries will share their teaching materials by offering them in the competition and for display or demonstration in Strasbourg.

It has not yet been decided whether or not any of these items will be reproduced and sold on a cost basis but that is a possibility. The deadline for submitting items for the competition is January 31, 1988.

J.B. Dixon, Chairman
Teaching Aids Committee

From the Treasurer's desk

Please note the new address of AIPEA Treasurer :

Dr Christian De Kimpe
Agriculture Canada
Land Resource Research Centre
Central Experimental Farm
Ottawa, Ontario, Canada
K1A 0C6

At this time of the year, it may be appropriate to think about renewing your membership in AIPEA. We intend to prepare in the near future a new membership directory and it would certainly be a great help if those who omitted to pay their dues during the last years, would send their cheques as soon as possible. As you are well aware, postage costs are increasing almost every year and it is therefore extremely difficult to send reminders.

I also urge you to use computerized cheques. It costs about \$ 15 / cheque to cash a non-computerized cheque through the International Banking Center, and this is not acceptable.

Finally, you will greatly help us by informing the Treasurer or the Secretary about change of address, deceased members, eligible life members, ... so that we can update our records.

C. De Kimpe,
Treasurer

Council Meeting

The next AIPEA Council meeting will take place in Sevilla during the next Euroclay Conference. The meeting will be at lunch time and the Council members will be the guests of Prof. E. Galan, Chairman of the Euroclay Organizing Committee.

W.F. Bradley Award

The next issue of this Newsletter will provide again the full text of the regulations for this Award (which will be made for the next time in Strasbourg in 1989). AIPEA members are already reminded to encourage entries of high quality.

THE SIXTH MEETING OF THE EUROPEAN CLAY GROUPS

The Sixth European Clay Meeting (Euroclay '87) is being organized by the Spanish Clay Society according to the decision of the executive meeting of the Representatives of the European Clay Groups, held on the 1st of September, 1983, in Prague. All

scientists interested in clays and related materials are invited to attend.

Seville has been selected by the Spanish Clay Society as the site for this meeting. Seville is a city of 700.000 inhabitants located in the basin of the Guadalquivir river. It is easily accessible by road (542 Km), rail (6 hours) and air (45 minutes) from Madrid. Also Seville is close to the international airport of Malaga, Costa del Sol (about 200 Km).

The conference will be held from Monday September 7, through Thursday September 10, 1987.

The working language for the meeting will be English. No provision will be made for simultaneous translation.

The meeting will cover all aspects of clay research and related subjects. Any original communication related to clay materials investigation not previously published may be accepted. Contributions should be included in the following subjects :

1. Geology and geochemistry
 - 1.1 Analysis of basins
 - 1.2 Clay deposits of economical interest
 - 1.3 Paleosols and weathering crusts
2. Surface chemistry and catalysts
 - 2.1 Selective reactions on clay
 - 2.2 Role of clay in the origin of life
3. Crystal chemistry and structure
 - 3.1 Local order of ions in layer silicates
 - 3.2 Interstratified clay minerals
4. Non-silicate minerals in clays
 - 4.1 Low-crystallinity minerals
 - 4.2 Fe-Al oxides and hydroxides
5. Applications in : Agriculture, Pharmacy, Ceramics, The environment, Biotechnology
6. Rock and soil mechanics
7. Petroleum generation and exploration
8. Methodology and analytical techniques.

A round table about weathering of the building stones will be included in the meeting. Other topics may be included if sufficient interest is expressed by potential participants.

Three excursions have been planned to increase participants knowledge of clay deposits, soils, factories and other places of interest, both scientific and touristic, in Spain.

The following trips have been planned :

- A. Bentonite deposits of Cabo de Gata (Almeria)
 - B. Soils of the Beninar basin, Las Alpujarras (Almeria-Granada)
 - C. Kaolin processing plant of Caobar (Guadalajara)
Kaolin deposit at Poveda de la Sierra (Guadalajara)
Sepiolite and Mg-bentonite deposits in the Tajo basin (Madrid-Toledo).
- A and B will be pre-meeting and C will be post-meeting excursions.

Spouses, family and friends of participants are encouraged to attend the Conference as accompanying persons. The Organizing Committee has planned a special social and cultural program for participants and accompanying persons.

Social programme includes a welcoming reception for Sunday evening, September 6.

On September 9, a trip to Jerez has been scheduled to enjoy the Andalusian Horse Exhibition, and to visit a sherry wine cellar, including lunch and other touristic activities.

A dinner at the closing of the Conference will be offered on the evening of Thursday, September 10.

The registration fee for participants is 25.000 pesetas (about \$ 175 at the present rate) and for accompanying persons is 15.000 pesetas (about \$ 100).

The fee for participants covers administration expenses, summary book, excursions guide and other documentation, welcoming reception, visit to Jerez, closing dinner, and transportation from airport (on Sunday 6) and return (on Friday 11).

Accompanying persons may attend all social events and, in addition, participate in the special programme scheduled for them.

The Organizing Committee has booked a number of rooms for the participants at hotels of 4 and 3 stars categories at lower prices than the usual ones. In addition, a number of rooms has been arranged in a college.

The first circular has been mailed to all who replied to the announcement circulated during 1985. If you did not receive one, or would like extra copies for colleagues, please send your request to :

Prof. E. Galan
EUROCLAY '87
Depto de Geologia / Universidad de Sevilla
Apartado 553
41071 Sevilla (Spain).

NINTH INTERNATIONAL CLAY CONFERENCE 1989

The next ICC will take place in Strasbourg, France, from August 28th to September 2nd, 1989.

The local Organizing Committee (Prof. Y. Tardy, Chairman and Dr H. Paquet, Secretary General) is now able to propose the following provisional technical programme : sessions (mostly poster sessions) will be organized along the following topics :

- crystal chemistry, structure and nomenclature
- colloidal chemistry, surface chemistry and catalysis
- geochemistry of clay minerals and thermodynamic approach of clay-water interactions
- non crystalline minerals and metal hydroxides
- organic matter - clay associations
- sediment diagenesis and hydrothermal alterations
- industrial and environmental applications (waste disposals)
- analytical techniques.

It is also foreseen to organize a special session on "clay minerals in soils and weathering" jointly with the members of Commission VII (Soil Mineralogy) of the International Soil Science Society.

The above topics are still provisional and the Organizing Committee is requesting suggestions from any individual or informal group that would like to organize a special session on a particular topic.

The field trips will take place after the technical session and will last 5 days. The first day will be common to all groups and will lead the participants in Alsace (loess, ceramics, thermal waters, ...). Then the participants will have the choice between different itineraries :

- Lorraine and Burgundy (soils)
- Provence (ochres and bauxites)
- South East (polygorskites, sepiolites, calcretes, silcretes)
- Paris basin (kaolinite of Provins, sands of Fontainebleau, silcretes)
- Quercy and borders of the Pyrénées (halloysites, talc of Luzenac, siderolitic formations)
- Brittany (kaolin deposits, siderolitic formations)
- Orléans area (laboratories and Loire castles).

Correspondence for the 9th AIPEA ICC :

Dr H. Paquet
Institut de Géologie
rue Blessig 1
F-67084 Strasbourg (France).

NATIONAL CLAY GROUPS

Australia

The Australian Clay Minerals Society (ACMS) organized its Tenth Biennial Conference at the University of New South Wales in Sydney from 8 to 10 December 1986. The Conference programme was as follows :

Weathering

R.A. Eggleton, "The role of iron and aluminium in weathering"
J. Pender and A.J. Koppi, "Weathering and soil formation of Tibooburra granite"

Q. Wang and R.A. Eggleton, "Electron microscopical aspects of hornblende alteration during hydrothermal activity and weathering"

Pedogenic processes

R.W. Fitzpatrick and R.J. Coventry, "Influence of heat from bush fires on mineralogical transformations in some Australian soils"

R.M. Taylor, "A mechanism for the formation of soluble Fe³⁺-Al and Si-Al hydroxy complexes mobilised in soils"

D.J. Chittleborough, "Differential clay movement on hillslopes - a new hypothesis for the formation of soils with texture contrast"

Zeolites

S.R. Pecover, "Natural zeolites : properties, occurrence and use - a review"

P. Frederickson, "Use of natural zeolites in agriculture and aquaculture"

S.R. Pecover, "Zeolite bearing rocks of the Tamworth Belt : commercial prospectivity"

Techniques

D.J. Wilson, "Measurement of soil moisture at sand/clay interfaces"

M.A. Wilson, J. Stephens and S.A. McCarthy, "Thermal transformation of clays as revealed by ²⁷Al, ²⁹Si and ³¹P high resolution solid state nuclear magnetic resonance spectroscopy"

A. Shayan and C.J. Lancucki, "Clay mineralogical changes resulting from treatment with various salts"

Properties and formation of clay and associated materials

R.A. Eggleton and R.W. Fitzpatrick, "New data and a revised structural model for ferrihydrite"

- D.G. Lewis, "Interaction of silicate and phosphate with iron oxides"
- E. Slansky, "Clay phosphates in alluvium of the Shoalhaven river"
- W. Cooper, "Clay minerals in Southeast Queensland"
- J.M. Fetherston, "Mayfield revisited; the geology of a deep weathering profile at the Mayfield Kaolinite Quarry, N.S.W."
- J.G. Thomson and M. Raupach, "Kaolinite (CH₃)₂ XO intercalates : X=S, SE"
- L.C. Barnes and R.S. Robertson, "South Australian palygorskite : potential and problems"
- R. Seedsman, "The microstructure of clay in clay shales"

Applied clay mineralogy

- J.H. Patterson, "Clay mineral reactions in oil shale processing"
- P.J. Collin, "Pillared clay catalysts"
- R.J. McLaughlin, "Properties of Watheroo (W.A.) bentonites"
- T.W. Turney, "Synthetic cobalt clays as Fischer Tropsch catalysts"
- M.S. Rahman, A.J. Richards and L.M. Besley, "The beneficiation of kaolin clays using a superconducting high gradient magnetic separation (HGMS) facility"
- J.L. Anderson and J.R.S. Kmetoni, "The beneficiation potential of N.S.W. kaolins"

Apart from technical sessions, ACMS had a business meeting at which a new executive was elected. All new members are from Queensland as the next conference will be in Brisbane.

E. Slansky

Belgium

The annual meeting of the "Belgian Contact Group on Clays" took place in September at the Katholieke Universiteit Leuven. The local organizer was Prof. A. Cremers. The program was as follows :

Ion exchange and ion sorption on metal oxides and clays

- Dr Russel Patterson (Chemistry Dept, The University, Glasgow)
"The ion exchange and ion exclusion properties of crystalline metal-oxides-hydroxides"
- Dr A. Maes and Prof. A. Cremers (Lab. of Colloidal Chemistry)
"Highly selective ion sorption in clay minerals"
- Prof. A. Cremers and Dr A. Maes (Lab. of Colloidal Chemistry)
"Geological clay formations in high level nuclear waste disposal : physico-chemical aspects"

- D.P. Vliers, J. Cenens, R.A. Schoonheydt and F.C. De Schrijver (Lab. of Surface Chemistry and Lab. of Photochemistry)
"Luminescence and single photon counting in clay mineral studies : Ru(bpy)₃²⁺ and proflavine on clays in aqueous suspensions"

Laboratory visit.

The attendance was about 50 scientists.

W. Stone

Canada

The second symposium on Applied Clay Science was held as a Special Session during the GAC/MAC Annual Meeting at Carleton University. The following papers were presented :

- T.S. Hamilton and T.W. Nazarko, "Interaction of clays with petroleum heavy ends"
- J.S. Kirk and F.J. Longstaffe, "Mineral reactions in Cold Lake oil sands during steam flooding"
- L.S. Kotlyar and B.D. Sparks, "Non-crystalline inorganic matter - humic complexes in Athabasca oil sand"
- P.L. Churcher and M.B. Dusseault, "Clay mineralogy of two selected carbonate reservoirs in south-western Ontario"
- H. Kodama, "A comprehensive scheme for mineral analysis of soils and sediments"
- G.S.R. Krishnamurti and P.M. Huang, "The nature of mineral colloids associated with the mechanical separates of soils representing major taxonomic orders"
- K. Tazaki, W.S. Fyfe and G.R. Beath, "Palygorskite formed on montmorillonite in North Pacific deep-sea sediments"
- W. Chesworth, P. Van Straaten and P. Smith, "Solubility of apatite in clay-bearing systems"
- G.K. Rutherford, "Mineralogical, physical and chemical properties of clays processed by A/S Norsk Leca for insulation materials"
- R.H. King, "Prevalence of clay material used in the manufacture of archaeological pottery from Cyprus"
- G. Villemure, G. Bazan, H. Kodama, A.G. Szabo and C. Detellier, "Clay-assisted photoproduction of hydrogen from water"
- H.A. Buckmaster and T. Duczmal, "The dynamics of Mn²⁺ ions in hydrated Ca-Montmorillonite from 300K to 550K"
- M.R. Noll, P.M. Bertsch and D.L. Sparks, "A comparison of sequential selective dissolution methods for the analysis of ¹³⁷Cs mobility in lake sediments"

D.W. Oscarson, H.G. Miller and R.L. Watson, "Potential effectiveness of mercury minerals in decreasing the level of ¹²⁹I in a nuclear fuel waste disposal vault in Canada"

Participants indicated an interest for such sessions on applied clay science. Although a consensus was not yet reached on the formal organization of a Canadian Clay Group, there was enough support to investigate the idea further. The next symposium on applied clay science will take place in 1988. For further information, contact Dr G.K. Rutherford, Dept of Geography, Queen's University, Kingston, Ontario, Canada K7L 3N6.

The organization of the XIIth INQUA Congress (July 31 - August 9, 1987, Ottawa, Ontario) is progressing smoothly and clay specialists will certainly be interested in several sessions.

C. De Kimpe

China

A National Symposium on Analysis, Processing and Utilization of Nonmetallic Minerals was held in Nanjing, Jiangsu province, on 4-11 November. It was organized by the Committee of Nonmetallic Mineral Deposits of the Geological Society of China. About 110 participants from different provinces, universities and research institutes attended the meeting. Eighteen lectures were presented on the plenary scientific session with the following subjects :

- Polytype and identification of clay minerals (1)
- X-ray diffraction and quantitative analysis of clay minerals (2)
- Processing and application of kaolins (3)
- Applied clay mineralogy and classification of clay deposits (2)
- Zeolite, wollastonite, kyanite, attapulgite, and sepiolite deposits (6)
- Other problems about nonmetallic mineral deposits (4).

About 65 papers were presented in the following 3 sessions :

1. Methods of analysis
2. Processing and utilization
3. Exploitation of nonmetallic mineral resources.

Abstracts of these papers will be published next year.

All participants visited the laboratories of Nanjing University and the Geological Bureau of Jiangsu province. A field excursion was arranged to visit the kaolin, bentonite and moulding sand deposits of Jiangning county, Jiangsu province.

Zheng Zhi

Czechoslovakia

The 10th Conference on Clay Mineralogy and Petrology was held in Ostrava, Northern Moravia, from August 26 to 29. The host institution was the Faculty of Mining and Geology of Mining University in Ostrava. About 120 participants, among them 33 foreign guests from Austria, Bulgaria, German Democratic Republic, Hungary, Italy, Norway, Poland, Spain and Soviet Union, attended the jubilee conference. 60 original contributions were presented orally and 12 by posters in the following sections :

1. Clay mineralogy and petrology of sediments in coal and oil-bearing basins
2. Crystallography and advanced methods in the investigation of clay minerals
3. Petrology and geochemistry of clays
4. Applied clay science.

Forty papers, mostly in English, were accepted for publication in the volume of the 10th CCMP, which will be published by the Charles University, Prague (editor J. Konta).

Most of the participants visited the up-to-date laboratories of the Ostrava-Karvina Mines. The one-day excursion in two sections took place after the lecture program. The topic of excursion A was the geology and petrology of the Upper Silesian coal basin demonstrated on profiles in black coal mine. The excursion B led to the deposits of brick raw materials, clays accompanying the gypsum and in mine of roofing slates.

Jiri Sindelar

France

The "Groupe Français des Argiles" held its spring meeting 1986 on March 27 at the Institut Français du Pétrole (IFP). The topic was "Clay and oil". The following papers were presented :

- B. Kubler, "Mineralogical transformation in diagenesis. For a zone graph to explore hydrocarbons"
- M. Jourdan, "Neof ormation clays effect on sandstone reservoirs quality"
- F. Borg, "Acidity and catalytical activity of montmorillonite and beidellites with hydroxyaluminium blocks"
- P. Jambu, "Hydrocarbons and oxygenated by-products fixed by clays"
- C. Bearez, P. Magnoux, M. Guisnet, "Catalytical role of natural minerals in oil transformation"
- N. Lievig, J.R. Mossman, "Isotopic datation of diagenetical clays"

- J. Baudracco, J.C. Cadot, "Porosity and water or air permeability variation in a boring profile"
- M.C. Letellier, J. Baudracco, J. Yvon, "Various methods comparison of clays determination in a bed of sand"
- R. Djarnia, "Study of trias clays in Hassi R'Mel"
- L. Gatineau, H. Van Damme, "Viscous digitation in water-clay system"
- Y. Tardy, "Clays and smectites stability"

The autumn meeting 1986 was held on November 19. The following papers were presented :

- J. Guicnard, R. Zalma, D. Costa, H. Pezerat, "Surface activity of minerals in reducing oxygen to hydroxyl radicals"
- J.M. Cases, U. Grillet, M. François, J.E. Poirier, J. Rouquerol, "Microporosity and external surface evolution of sepiolite brought under vacuum at various temperatures"
- M.H. Simonot-Grange, J.P. Bellat, O. Bracieux-Bouillot, "Physico-chemical properties of water and sepiolite"
- R. Prost, E. Huard, J. Driard, A. Dameme, "Mechanism of water retention by clays : consequences of drying and swelling"
- J.V. Zanchetta, J.C. Giuntini, "Study of water-montmorillonite interaction by dielectrical measurement"
- R. Prost, E. Huard, J. Driard, J.P. Leydecker, A. Dameme, "Temperature effect between 5 and 600K on the IR absorption spectrum of structural hydroxyde in kaolinite, dickite and nacrite"
- F. Arbey, "Physico-chemical study of early diagenetical transformations in ordovicien glauconite and chamosite"
- B. Siffert, P. Nico, "Dextran - kaolinite interaction mechanism in water medium"

The spring meeting of the French Group will be held on the 19th March 1987. No particular topic. Offers of papers should be forwarded as soon as possible to the Group secretary, M. TERCE (INRA, Route de St Cyr, 78000 Versailles).

J. Mamy

Germany

Annual report of the German Clay Group (DTTG)

On April 10-11, a workshop on "Applied Clay Mineralogy" was held at the "Institut für Bodensorschung und Baueologie" of the University of Vienna. Altogether 8 papers on various topics (geotechnology, waste disposal, etc) have been presented.

The annual meeting of the DTTG took place in Haiger (Westerwald) on the 13th and 14th of May. J.A. Bain (BGS, Great Britain) gave an invited lecture on "Composition and properties of clays used in various fields of ceramics". Especially dealing with problems of applications for the ceramics have been the other 12 presented papers too. A one day field trip to clay deposits and ceramic manufactures in the Westerwald region followed the scientific sessions.

During the meeting in Haiger elections for the council of the DTTG took place. Prof. Lagaly (Kiel) was elected as chairman and Dr Tributh (Giessen) will be the new treasurer of the DTTG.

Prof. Dr Eckhardt

Great Britain and Ireland

The Spring Meeting of the Clay Minerals Group was held at University College of North Wales, Bangor, from 23-25 March on the theme "Clay Minerals and Biological Processes". The first day consisted of field trips to Anglesey and Snowdonia. Two invited lectures were given at the scientific session, the first by Dr G. Cairns-Smith (University of Glasgow) entitled "How to get from clay to DNA", and the second by Dr J. Berthelin (Nancy) on "Effects of vegetation and humus on the weathering of clay minerals and mica : experimental results". Five other papers were also presented.

The Autumn Meeting was held in London on 14th November on "General Topics". The meeting opened with an invited lecture by G. Brown (Rothamsted Experimental Station) on "Disorders in clay minerals" and this was followed by seven papers on a wide range of clay mineral topics.

At the Annual General Meeting following the Autumn Meeting, the following were elected to serve on the committee for the coming year :

- | | |
|-------------------|------------------|
| Chairman | Dr M.J. Wilson |
| Secretary | Dr D.C. Bain |
| Treasurer | Dr P.J. Loveland |
| Principal Editor | Dr D.J. Morgan |
| Committee Members | Dr P.L. Hall |
| | Dr D.A. Jenkins |
| | Mr R.J. Merriman |
| | Dr T.J. Primmer |
| | Dr K. Pye |
| | Mr M.H. Yates |

Future meetings - Spring 1987

A joint meeting of the Clay Minerals Group and the British Society of Soil Science will be held from 13-15th April on the theme "Clay Minerals and Soil Properties". There will be three sessions :

- Poorly ordered soil clays (keynote address by Dr V.C. Farmer)
- Clay minerals in relation to soil chemical and physical properties (keynote address by Prof. P.W. Arnold)
- Nature and origin of clays in soils (keynote address by Prof. F. De Coninck).

To date, offers of 19 other papers have been received. The meeting will be residential, being held at Trevelyan College, Durham. Registration details can be obtained from Dr P.J. Gregory Department of Soil Science, The University of Reading, London Rd, Reading RG1 5AQ (Tel : 0734 875234).

- Autumn 1987

The Group will be participating in the First Winter Conference of the Mineralogical Society to be held at Aston University, Birmingham, from 16-18 December, in conjunction with the Royal Society of Chemistry (Dalton Division). The overall title for the meeting is "Spectroscopic studies of minerals : principles, applications and advances" and there will be a session on "Applications of spectroscopic methods in clay minerals research" including a keynote address by Dr B.A. Goodman (Macaulay Institute). Further details can be obtained from the Group Secretary : Dr D.C. Bain, Department of Mineral Soils, The Macaulay Institute for Soil Research, Aberdeen AB9 2QJ.

D.C. Bain

Hungary

In 1986 five meetings were held in Budapest and the following lectures were presented :

March

- Juhasz Z., "Investigations concerning the expansion of phyllosilicates"
- Földvari M., "Report on the ICTA Congress, Bratislava, Czechoslovakia, 1985"

April

- Toth M., Balla-Csaky I., "Expansion of clays upon heath treatment"

Viczian I., "Thermodynamic stability relations of clay minerals according to F. Lippmann - Report on a study trip in Tübingen, Germany"

May

Viczian I., "Clay minerals in the bore hole Doboz-I. SE Pannonian Basin"

October

Lenkei M., "Rheological properties of clay minerals"

December

Stefanovits P., Dombovari L., "Nitrogen economy and clay mineralogy of soils"

Viczian I., Szegedi A., "Report on the 10th Czechoslovak Conference on Clay Mineralogy and Petrology, Ostrava, 26-28 August 1986"

This meeting was held jointly with the Section of Soil Mineralogy of the Hungarian Society for Soil Science.

I. Viczian

Italy

Activity of the "Gruppo Italiano" of AIPEA :

The Proceedings volume of the Inter-Meeting of the Sociedad Espanola de Arcillas and the Gruppo Italiano of AIPEA on "Clays and Clay Minerals" (see AIPEA Newsletter no. 21 (1985)) is published. About 700 pages cover general lectures delivered by :

- Lisa Heller-Kallai, "Do clay minerals act as catalysts in the thermal alteration of organic matter in nature? Problems of simulation experiments"
- José Linares, "The process of bentonite formation in Cabo de Gata, Almeria, Spain"
- Cyril Tchoubar, "Quantitative determination of the fine structural features in clays by modelling of the X-ray diffraction patterns"
- Manuel Rodriguez Gallego, "Crystalline defects in layer silicates"
- José Maria Serratos, "High-resolution MAS-NMR spectra layer silicates, ordering of tetrahedral cations"
- Luigi Dell'Anna, "The upper basin of the Ofanto River : some grain size, mineralogical and chemical factors which show the pattern of sedimentation and the source of the minerals"
- Fernando Veniale, "The role of microfabric in clay soil stability"

Jiri Konta, "Crystalline minerals and chemical maturity of suspended solids of some major world rivers".

Furthermore, about 90 papers report the oral communications presented at the sessions : Surface Chemistry and Interactions, Geology and Genesis, Crystal Chemistry and Structure, Soil Mineralogy and Geochemistry, Ceramic Clays, Geotechnical Properties and Applications.

Requests should be addressed to the Editor-in-Chief, Prof. A. Pozzuoli (Via Belvedere al Vomero 111, I-80127 Napoli).

A meeting was held on 16-18 October in Policoro (Basilicata, Southern Italy) on "Coast erosion and dynamics - Littoral evolution", organized by the Gruppo Italiano of AIPEA, Italian Society of Soil Science and ENEA (National Authority for Nuclear and Alternative Energies). About 120 participants attended the sessions (mainly invited general lectures, followed by panel discussions), and the excursion along the Ionian Sea coast, the river Sinni dam and the "calanchi" (bad earths) area around Rotondella, province of Matera. A Proceedings volume is in preparation, published by ENEA.

On 28-29 May, 1987, at the ENEA Research Centre for Energy and Environment in Lerici, La Spezia, a meeting will be held on "Investigation procedures for clay materials". Critical reviews on sample preparation-treatment techniques for X-ray diffraction, scanning electron microscopy, particle microanalysis carbonate and organic matter removal, granulometric analysis, etc.. and their limits of suitability will be presented by invited lecturers. The meeting will be followed by a full day excursion devoted to water pollution and environment problems along the Porto Venere and Cinque Terre coast (Ligurian Sea).

Organizing committee : Dr V. Damiani and Mrs Dr. O. Ferretti
Centro Ricerche Energia e Ambiente - ENEA
C.P. 316
19100 La Spezia.

F. Veniale

Japan

A. Annual Meeting

The 30th anniversary commemorative meeting of the Clay Science Society of Japan was held from October 1 till 4 at Tokyo Institute of Technology in Tokyo.

- (1) Commemorative Award for contribution to the society : Ariizumi A., Honda S., Suito E., Takeshi H., Udagawa S.
- (2) Commemorative Award for contributed paper : Egashira K., Hayashi H., Inoue A., Tatematsu H.
- (3) Commemorative invited lectures :
Iwao S. (Univ. Tokyo), "A review on lateritic clays in Japan-Occurrence and metamorphism"
Zheng Z. (Inst. Mineral. Dep. Acad. China), "The clay mineral resources of China"
Norrish K. (CSIRO), "A unique halloysite and research of the Mineralogy Section of CSIRO Division of Soils"
- (4) Symposium
a. Clays of Asia and Oceania Districts
Nagasawa K. (President), Kaneoka S., Kamitani M., Yasuda J., Yoshinaga N.
b. Electron Microscopy
Akai J., Honda S., Kohyama N., Shibatomi K.
- (5) Poster session
P1 (01-22)
P2 (01-23)
- (6) Excursion
Mashiko (pottery) - Kampaku (kaolin) - Fuzami (Ro-seki).

B. Committee

The following executive council for the year 1986 was elected at the Annual General Meeting :

- President : Kato C. (Waseda Univ.)
- President elect. : Kida D. (OBayashi-gumi Co.)
- Vice-President : Otsuka N. (Tokyo Inst. Techn.)
- General Secretary : Shimoda S. (Tsukuba Univ.)
- Treasurer : Tatematsu N. (Techn. Inst. JNL)
- Editor (Nendo Kagaku) : Yosinaga N. (Ehime Univ.)
- Editor (Clay Science) : Sato M. (Gunma Univ.)
- Council members : Aoyagi K., Hayashi T., Horikawa S., Kato M., Kubo H., Hishiyama T., Oinuma K., Okada O., Otsuka N., Sakamoto T., Sato M., Shibazaki Y., Shimoda S., Suzuki K., Tatematsu H., Tatematsu H., Tomita K., Torii K., Ueda S., Uno Y., Utada M., Wada Y., Watanabe Y., Yamanaka S., Yoshimura T.

C. Publication

The following issues were published this year :
Nendo Kagaku (Journal of the Clay Science of Japan) : Vol 25,
no. 4 and Vol 26, no. 3
Clay Science : Vol 6, no. 5.

Minoru Utada

South Africa

The clay interest group by the end of 1986 had compiled analytical results to characterize a Ball and a Flint Clay. Non-South African laboratories wishing to analyse these samples should apply to :

Dr D. Böhmann
Dept of Geology and Mineralogy
University of Natal
P.O. Box 375
Pietermaritzburg 3200.

Samples of 100 g each will be sent and the recipients are requested to send their results directly to Dr Böhmann.

The 18th Annual South African Ceramic Society Symposium entitled "Quality Assurance/Properties and Testing" took place on 10 September in Pretoria. Among the talks were those proposed by Prof. O.R. Heckrodt, "Proof testing of ceramic materials"; Prof. K.H. Schüller (Nüremberg), "Quality assurance of ceramic raw materials". During his stay in South Africa, Prof. Schüller was an invited guest speaker in Cape Town, Johannesburg and Pietermaritzburg, where he met clay enthusiasts.

Dieter Böhmann

South Korea

Two meetings of the Clay Studies Group of Korea took place in Seoul; one meeting jointly with the Annual Meeting of the Korean Institute of Mining Geology, on April 6, and another meeting with the Annual Meeting of the Geological Society of Korea, on November 14-15.

The papers delivered at both meetings are :

Ji J.M. and Park Y.S., "Environment of formation of the Hadong kaolin deposits"
Kim S.J. and Jeong G.Y., "Zonal distribution of clay minerals along the quartz veins in the Sancheong kaolin deposits"

Lee D.J. and Lee S.R., "Mineralogy of high aluminum shale from Nam-myeon, Hwasun-gun"
Kim S.J. and Lee S.H., "Zeolite nodules in the fuller's earth from Yangnam-myeon, Weolseong-gun"
Kim S.J. and Cheong C.H., "Occurrence, mineralogy and genesis of zeolites and smectites from the Tertiary tuffaceous rocks in the Janggi area"
Kim S.J. and Jeong G.Y., "Mineralogy and genesis of kaolin from Sancheong"
Noh J.H., "High temperature phase change and dehydration of heulandite from Yeongil"
Hwang J.Y., "Dissolution experiment of chlorite and sericite"
Lee C.S. and Sang K.N., "Genesis of Yukwang clay deposits, Yangsan-gun"

The Clay Studies Group of Korea decided to be associated with the Mineralogical Society of Korea as one of its Working Groups. Therefore, the next meeting of the Clay Studies Group is scheduled to be held on May 15-16 at the time of the Annual Meeting of the Mineralogical Society of Korea.

Soo Jin Kim

Spain

The Society edited the plenary lectures of the VII Meeting of the Clay Society of Spain that was held on 7-8 March 1985. The contents of this volume are as follows :

J. Linares, "The formation process of Cabo de Gata bentonite"
A. Alvares, "New trends for bentonite applications"
A. Ruiz Amil, "Identification of interstratified clay minerals by the Fourier transformed method using amines interlayer sorption".

The VII Meeting of the Clay Society of Spain was held on June 5, 1986 at the Science Faculty of Zaragoza University. It was organized in collaboration with the Spanish Mineralogical Society. There were 144 participants and 37 papers were delivered which covered most of the clay topics. A plenary lecture on Clays Paleoenvironments Indicators was given by E. Galan.

E. Galan

USA

The Clay Minerals Society will have its Annual Meeting in Socorro (New Mexico), on October 19-22, 1987. The program will include symposia or sessions on technological applications of clay minerals, clays in desert environments, environmental applications of clay minerals, colloid chemistry, clays in the energy industry, new applications of diffraction theory and general sessions. Address questions to David L. Bish, Los Alamos National Laboratory, Mailstop D469, Los Alamos, New Mexico 87545.

CMS Workshop October 17, 1987, will be on non-standard methods of thermal analysis of clays, zeolites, and organics. Ross R. Giese, Jr., Chairman.

In 1986 the Clay Minerals Society journal, Clays and Clay Minerals, published or is scheduled to publish, 90 scientific articles and notes about half of them from outside the USA and six book reviews, citations, announcements and comments. Two special issues were published that reflect current views on the smectite-illite reactions : no. 2 Clays in the Petroleum Industry and no. 4 John Bower Memorial issue. Extra copies of these issues are available from the Society office in Bloomington, Indiana.

The proceedings volume of the 1985 International Clay Conference is planned for publication early in 1987. Copies will be sent to all paid participants at the Denver conference and others may obtain copies from the Society office.

Joint collection of AIPEA and CMS dues is being studied and it is anticipated that Council will consider it at the October 18, 1987 meeting.

The 8th International Zeolite Conference is scheduled for July 10-14, 1989 in Amsterdam.

J.B. Dixon

USSR

Main scientific events of 1986 in USSR concerning clay minerals :

- 1) June 30-July 5 (Miass, Ural) Summer school on electron diffraction methods in the study of minerals. Special attention has been paid to applications for smectites and other poorly crystallized layer minerals.

- 2) September 3-9 (Lake Baikal) 5th school on X-ray methods of the analysis of the substance. The programme included lectures and posters revealing the efficiency of the X-ray profile analysis, of oblique-texture and selected area electron diffraction in the study of fine grained phyllosilicates and clay minerals.
- 3) September 3-13 (Magnitogorsk, Ural) All-Union conference on weathering crusts as source of complex raw materials.
- 4) October 21-23 (Moscow) All-Union meeting on genesis and uses of kaolins and fire-clays.
- 5) October 28-November 1 (Tbilisi) 10th All-Union meeting on X-ray analysis of mineral raw materials. It considered in particular the results of structural studies of phyllosilicates in the solution of crystallochemical and geological problems.
- 6) The Publishing House "Nauka" has edited the volume 19 of coll. works "Weathering Crust" dealing with theoretical and applied problems of formation and transformation of crusts and related sediments, considering the results of their study by means of X-ray spectroscopy, X-ray and electron diffraction, electron microscopy and other methods.

B. Zvyagin

MEMBERSHIP

AIPEA accepts as members clay scientists, institutions, and companies. Members may join individually or through cooperating national scientific societies.

Please fill in the attached form for joining AIPEA and send it along with your dues payment to the Treasurer.

The annual membership fees are as follows :

Individual member of an Affiliated Society*	US\$	4.00
Individual member	US\$	6.00
Institution or Company (Corporate member)	US\$	15.00
Life members (individuals)	US\$	120.00

Your cooperation in observing the following suggestions in paying your membership fees will be appreciated :

1. Pay fees by (a) bank money order, payable in US dollars, or
(b) international postal money order, payable in US dollars.

2. Pay membership fees for three or five-year periods.

3. Make cheque or money order payable to AIPEA and mail to :

Dr C. DeKimpe
AIPEA Treasurer
Agriculture Canada / Land Resource Research Centre
Central Experimental Farm
Ottawa, Ontario K1A 0C6 (Canada)

* You may join AIPEA in this category if you are member of a national society affiliated with AIPEA.

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Amount of dues enclosed : \$ for years

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If you are an individual member of an Affiliated Society, give

the name of the Society :

Date :

Signature :

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