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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

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REPORTS ON THE 1975 INTERNATIONAL CLAY CONFERENCE

The 1975 International Clay Conference was held jointly with the U. S. Clay Mineral Society's 12th annual meeting in Mexico City on July 16-23. The conference was organized by the Instituto de Geologia, Universidad Nacional Autonoma de Mexico. The members of the organizing committee are to be commended for their very fine job.

Technical sessions were held in the excellent facilities of the Unidad de Congresos del Centro Medico. Scientific papers were presented at seven technical sessions and four symposia as well as at a special session on "Clays and the Origin of Life". A number of interesting field trips to kaolin deposits, sedimentary zeolites, attapulgite and tropical soil profiles and memorable visits to the ruins of ancient Indian civilizations were also arranged.

Each technical session began with an hour-long review by its chairman of the major topic of the session. These reviews included detailed discussions of the state of the art in each subject. Speakers were then given 20 minutes each for presentation followed by 10 minutes of discussion. Lively and stimulating discussions followed many presentations. Because of the large number of papers, two simultaneous sessions were often held.

Technical Sessions

Technical session I was concerned primarily with the weathering and formation of clay minerals in different rock types and under different natural environments. The presentations also included mineralogical studies of volcanic rocks, ocean sediments and mudstones as well as post depositional changes in shales and diagenesis in buried argillaceous sediments. In addition, clay petrology, K/Ar dating of some strata and dispersion patterns of clay minerals in the ocean were discussed.

Technical session II dealt with structural changes in clay minerals following heat treatments and K exchange and fixation. The review lecture embodied a detailed, up-to-date account of the nature of poorly crystallized transitional phases and stable high temperature phases produced when clay minerals are heated at progressively higher temperatures. Formation of interstratified layer silicate mixtures following dehydration of some layers at certain temperatures was also discussed. The presentation also included order-disorder relationships in phyllosilicates, layer charge distribution, effect of pH on layer charge and structural studies of interlayer water molecules in layer silicates.

Technical session III included reports of the laboratory synthesis of clay minerals under varying experimental conditions and the relationships of these preparations to the naturally occurring minerals. Formation of mineral phases as talc, serpentine, smectite and illite from freshly precipitated gels of appropriate compositions were reported.

Technical session IV dealt with studies of the colloidal properties of clays. Effects of various treatments on swelling characteristics, specific surface area, viscosity and stability of clay suspensions were discussed.

Technical session V was concerned with surface chemistry of clay minerals. Activity of clay surfaces in hydrogenation of unsaturated hydrocarbons, protonation of s-triazines, fatty acid decarboxylation and paraffin cracking and in a number of other reactions with organic compounds was amply demonstrated by these presentations.

Technical session VI included presentations on analytical techniques for distinguishing between smectite and montmorillonite using the Li-test, determination of order in kaolinite using DTA, determination of allophane in soils using acid ammonium oxalate and determination of CEC of soils using silver-thiourea.

Technical session VII opened with a detailed review of clay-organic complexes. In addition, several studies on the reactions of clays with organic pollutants as dimethyl sulfoxide and organophosphorus compounds and with inorganic pollutants as heavy metals were also reported.

Symposia

Symposium I dealt with detailed descriptions of various deposits and properties of kaolinite including its relationship to mullite and halloysite. Similarly, symposium II dealt with deposits and properties of zeolites.

Symposium III dealt with weathering of different minerals in soils with special reference to iron bearing minerals and their role in soil development. Symposium IV dealt with the effect of soil fabric

and particle arrangement on physical characteristics of soils and engineering behavior. Also included here were the effects of salts and interstitial solutions on these properties.

The special symposium was concerned with the role of clays in the origin of life with particular reference to surface activity of clays in reactions with organic molecules as amino acids, formaldehyde and others. The symposium brought to focus the potential role of clay as a template for prebiotic reactions.

--B. L. Sawhney
Conn. Agr. Expt. Station
New Haven, Conn.

Field Trip No. 1

The aim of this field trip was to demonstrate a number of supposedly hydrothermal kaolins to the northwest and west of Mexico City. It could be fairly said that the evidence for genesis was ably presented in the field by Professor W. D. Keller and Mr. B. Hanson, our enthusiastic guides. They succeeded in convincing all but the most hardened of sceptics.

Los Azufres. The first deposit visited was at Laguna Large, Los Azufres, where argillization could be seen in progress round a hot spring. Here the rhyolitic country rock was being progressively altered to endellite by spring water with a temperature of around 40° C. and with a pH of around 3.7. This deposit was not being exploited commercially but at Patio del Chino in the same neighborhood a field party visited a similar deposit that was working until recently. At this locality there was little remaining of hydrothermal activity apart from some solfatara action. The rhyolite was altered to kaolinite, cristobalite and alunite and a marked feature of this deposit was silica crust over the kaolinized material.

Guanajuato. The Guanajuato deposit provided an example of kaolinization along a fracture system in hornblende schists of possible Triassic age. The kaolinization occurred within fracturing crossing the crest of ridges but both the kaolinization and its crust of silica appeared to conform to the present surface topography. The alteration zones along the fracturing flare out upwards and this, together with the conformity of the kaolinization and its crust at the present land surface provides the main evidence that the kaolinization came from below in the form of hot fluids. The absence at present of active hydrothermal activity in the area allowed for a small measure of scepticism about the hydrothermal nature of these deposits.

After a second nights' stay at Guanajuato, which permitted some sight-seeing in this beautiful city, the party continued on its way north-northeast to San Luis Potosi.

Santa Teresa Mines, San Luis Potosi. This mine was the biggest and most extensive working kaolin deposit visited during the field trip. The deposit consisted of kaolinized rhyolitic flow breccia and also showed an alunitic zone. The rhyolite rests on Jurassic shales and is kaolinized in its bottom few meters with a silica crust overlying the kaolin deposit. This, it was pointed out, indicated that the alteration came from below and the presence of the alunitic zone suggested higher temperature, possibly sited near the source of the hydrothermal fluids.

A fluorite mine also near San Luis Potosi was visited and here fluorspar was seen adjacent to a fault throwing volcanic rocks against Cretaceous limestone. The fluorite occurred mainly in cave infillings within the limestone with the mineral being introduced by the action of hydrothermal solutions.

Guadalupe. A small but interesting dickite deposit, again with a rhyolite flow breccia as parent rock and with a silica crust over the kaolinite, was briefly examined. At this site the party was shown some old metalliferous workings close nearby, thus re-enforcing the probable hydrothermal origin for the dickite.

Sombrerete. This was a rather spectacular occurrence of kaolinization in a monzonite intruded into Cretaceous limestones. The silica crust was again demonstrated over the kaolinization and it was suggested that zones of alunite "nodules" occurring within the kaolinite mass were sites of rising hydrothermal solution. Considerable attention was given to the contact of the deposit against the limestone where there occurred a zone of grossularite along with some nontronite. On the return trip to Mexico City an opal mine was briefly visited near Gueretaro.

The general consensus was that true hydrothermal kaolinization had been successfully demonstrated on the field trip although a few members still had some reservations.

--E. C. Freshney
Inst. of Geological Sciences
Exeter, Great Britain

Field Trip No. 4

This trip was mainly devoted to soils of the subtropical and tropical region between Mexico City and Yucatan. It was excellently guided by Prof. Humberto Quinones who was effectively assisted by Mr. Fernando Ortega (geology between Mexico City and Oaxaca) and Dr. F. A. Mumpton (zeolites near Oaxaca).

The first two days covered the area south of Mexico City in the Trans-Mexico volcanic belt and further south in the Balsas basin and the Oaxaca highland; Mr. Ortega provided excellent geological comments to supplement the detailed description given in the route guide. During the second day well expressed badlands in red clay and silt beds, caused by overgrazing, were visited as well as several soil profiles developed on erosional and alluvial sites composed mainly of these red beds.

Zeolitic tuffs in the vicinity of Oaxaca (Etla) were demonstrated to the group by Dr. F. A. Mumpton from the State University College, Brockport, New York. These zeolites were formed by alteration of volcanic tuffs laid down in water and are extensively mined as a very attractive light green building stone which is widely used in this part of the country.

The group then flew from Oaxaca to Villahermosa, touring from there south to Teapa and west to Emillano Zapata, which is located in the North Chiapas district where a number of red soils from basic igneous rocks in different physiographic positions (Ultisols) were inspected. They showed deep weathering and extensive clay formation (mainly kaolinite) under a hot humid climate with year round or summer rains.

Finally, after a flight to Merida, geological and pedological features of the limestone plateau of the Yucatan peninsula were visited. Among these were bright red soils (terra rossa) located around Mitla and between Merida and Chichen-Itza and very impressive karst phenomena in the form of large concentric deep water holes, so called cenotes. The small group of about 20 people enjoyed the high quality of all of these demonstrations. Prof. Quinones and his crew are to be congratulated for the excellent guidance and very informative scientific explanations and thanked for the charming hospitality and friendliness. But not only scientific objects were offered. The most important and breath-taking witnesses of pre-Columbian, colonial and contemporary Mexican art occupied the group's interest as well as receptions by local authorities. Finally, an extremely good and harmonic spirit was always prevailing among the members of the group. This field trip showed that great interest exists on the part of a number of participants in International Clay Conferences in field trips devoted to soils. Summarizing, the group had an excellent trip which will be everlasting in its memory.

--U. Schwertmann
Inst. für Bodenkunde
Tech. Univ. München
GFR

Report on the General Assembly Held During the 1975 International Clay Conference

1. The New Council for 1975-78

The following candidates were discussed by the Council and then proposed to and accepted by the General Assembly:

President: Dr. S. W. Bailey, USA
Past President: Prof. J. J. Fripiat, France
Vice President: Prof. F. Veniale, Italy
Secretary General: Prof. U. Schwertmann, GFR
Assistant to the Secretary General: Dr. A. Breeuwsmma, The Netherlands
Treasurer: Dr. J. B. Dixon, USA
Editor in Chief: Dr. M. M. Mortland, USA

Members of the Council: Dr. J. E. Brydon, Canada; Dr. K. Norrish, Australia; Dr. A. Langier-Kuzniarowa, Poland; Dr. L. de Pablo, Mexico; Dr. J. Serratosa, Spain; Dr. H. Minato, Japan; Mr. D. Mitchell and Mr. J. A. Bain from the next host country, Great Britain.

2. 1978 International Clay Conference

A cordial invitation was extended to AIPEA by Dr. V. C. Farmer and Mr. J. A. Bain from Great Britain on behalf of the Clay Minerals Group of the British Mineralogical Society to hold the

next Conference in their country. This invitation was highly appreciated by the Council and the General Assembly and was accepted. Oxford will presumably be the site of the next Conference.

3. Financial Report

The Treasurer, Prof. J. White, presented the financial report which after having been checked by Dr. J. B. Dixon and Dr. B. L. Allen was accepted by the General Assembly (see separate report).

4. Membership Fee Increased

In view of worldwide price increases an increase of the annual AIPEA membership fee from US \$2.30 to US \$4.00 was accepted by the General Assembly.

5. Amendment to AIPEA Statutes

The following amendment of the AIPEA Statutes was accepted: In Chapter III, p. 10, lines 3-4 (see AIPEA Newsletter No. 1, July 1967) the words "...who is also president elect..." will be deleted.

--U. Schwertmann
Secretary General, AIPEA

Meeting of the Nomenclature Committee of A.I.P.E.A.

Mexico City, July 21, 1975

The following members of the committee were present: G. W. Brindley (chairman), G. Pedro (secretary), S. W. Bailey, K. Jasmund, and H. M. Koster.

The following were the main items discussed and the recommendations proposed:

1. Halloysite

The question of the ambiguous notations used to distinguish the more hydrous and the less hydrous forms of halloysite was considered. Terms currently used are:

(1)	(2)	(3)	(4)	(5)
Halloysite	Halloysite (7A.)	Metahalloysite	Halloysite	Dehydrated halloysite
Hydrated halloysite	Halloysite (10A.)	Halloysite	Endellite	Halloysite

It was unanimously agreed that endellite is seldom used, and that halloysite is ambiguous. (1), (3), and (5) use halloysite in different senses. There is little use in attempting now to restrict the name halloysite to one or other form. Scheme (2) alone is unambiguous. Therefore, it was recommended that (2) be used.

2. Smectite

About 10 years ago, AIPEA agreed that the terms "smectite group" and "montmorillonite - saponite group" might be used interchangeably, in the hope that usage would determine the more suitable term.

It was agreed that "smectite" was now almost always used, and therefore it was recommended that "smectite" now be accepted as the group name and that "montmorillonite - saponite" be dropped.

3. Concerning aliettite

The question whether aliettite be accepted as the name of a regular mixed-layer talc-saponite was discussed. It was agreed that the name should be accepted only if it is adequately demonstrated that a mineral exists containing talc and saponite layers with a strictly regular alternation of the layers. It was considered that a Fourier transform should be made available to show the statistical sequence of layers in the minerals hitherto studied. (See F. Veniale and H. M. van der Marel, Proc. Internat. Clay Conference, Tokyo 1969, Vol. 1, pp. 233-244).

4. Celadonite, glauconite

Brief consideration was given to these terms. It appears that they are often used to indicate the origin of the mineral or minerals. The committee was unable to make a recommendation whether one or both names are required, but it was agreed that retention of both names should not rest on the origins of the minerals.

5. Nimesite

The question was raised whether the name "nimesite" for a nickel analog of amesite was fully proved. Single crystal study of amesite has established that it has a 2H₂ layer stacking arrangement. From powder diffraction data it is difficult (or impossible) to distinguish 2H₁, 2H₂, and 6R stacking sequences. It was questioned whether nimesite could be accepted prior to single crystal analysis establishing the layer sequence arrangement.

It was agreed that the name could be retained for the present but questions may arise later if single crystal studies show a different layer sequence.

6. Naming of Mg, Ni hydrous silicates

No agreement was reached on the mole % of nickel where a change from the Mg end-member name to the Ni end-member name should be made. Some members favored making the change at 50 mole % of each component in accordance with the usual mineralogical usage. Others favored a name change at 20 or 25 mole % Ni on the grounds that the Ni mole % is rarely as high as 50%, and either 20 or 25 mole % represents a very high amount of Ni.

7. Kerolite-pimelite series

It was agreed that before acceptance of a talc-like series of Mg,Ni minerals named the kerolite-pimelite series, a firmer definition of kerolite was required. It was stated that such a study of kerolite was in progress.

It was recommended that the spelling be "kerolite" rather than "cerolite" because of the Greek origin of the word.

8. Distinction between "Lattice" and "Structure"

It was agreed that the term "lattice" continued to be misused when "structure" was intended. A large majority of speakers at the conference persisted in the misuse of the word "lattice".

It was recommended that speakers, authors, teachers and editors be reminded that a lattice is a point distribution (c.f. Bravais lattice) and should not be used when "structure" is intended.

Likewise the use of "layer lattice", and "Schichtgitter", is generally incorrect; layer structure or phyllosilicate is correct terminology.

9. Other business

S. W. Bailey, as a member of the joint I.U.Cr. and I.M.A. committee on nomenclature reported the discussions in progress concerning the development of a systematic symbolic notation for describing layer stacking arrangements and symmetries.

It was agreed that a nomenclature committee should continue to function within the A.I.P.E.A. organization.

--G. W. Brindley (chairman)
--G. Pedro (secretary)

AIPEA Financial Report

Statement of Income & Expenses
May 26, 1972 to July 15, 1975

	1972	1973	1974	1975	TOTAL
<u>INCOME</u>					
Dues					
Individual members	189.40	1,011.40	1,146.35	512.41	\$2,859.56
Co. and Inst.	5.75	19.03	152.67	24.17	201.62
Interest	26.38	56.19	63.61	50.00	196.18
TOTAL INCOME	\$ 221.53	\$1,086.62	\$1,362.63	\$ 586.58	\$3,257.36
<u>OPERATING EXPENSES</u>					
Printing & supplies	9.00		438.35	216.61	663.96
Postage	72.03	35.17	619.78	380.42	1,107.40
Sec. Gen. AIPEA	300.00	750.00			1,050.00
Miscellaneous	18.00	27.10	75.68		120.78
TOTAL EXPENSES	\$ 399.03	\$ 812.27	\$1,133.81	\$ 597.03	\$2,942.14
NET INCOME	\$-177.50	\$ 274.35	\$ 228.82	\$ -10.45	\$ 315.22

AIPEA Balance Sheet
July 15, 1975

<u>CASH</u>		<u>LIABILITIES AND SURPLUS</u>	
Purdue National Bank Lafayette, Indiana		Accounts payable	none
Checking	\$ 1,351.38	Surplus	
Savings (5-072-589-4)	309.98	Excess of income over operating expenses	315.22
Savings (6-0070797-1)	955.17	Assets May 25, 1972	\$ 2,301.31
TOTAL ASSETS	\$ 2,616.53	TOTAL SURPLUS	\$ 2,616.53

Joe L. White
Joe L. White, Treasurer

RECENT DEATHS

Clarence Samuel Ross
September 20, 1880 -- April 19, 1975

Clarence S. Ross was one of the giants of mineralogy and petrology throughout his more than 50-year career with the U. S. Geological Survey. He is best known to clay mineralogists for a series of classical works with P. F. Kerr, S. B. Hendricks, and E. V. Shannon in which he outlined the structural and chemical relationships of the kaolinite and montmorillonite groups, and defined bentonite. Dickite is one of the new minerals he described, and he relegated several clay mineral names to the synonymy category and preserved such valid species as nacrite and sauconite.

Dr. Ross retired in 1950 at the age of 70, as required in the Federal Service; but a special appointment by President Eisenhower made it possible for him to continue working for nearly two decades. He received many honors during his long career. He served as president of the Mineralogical Society of America in 1935 and was awarded that society's Roebling medal in 1946. The November-December issue, 1953, of the American Mineralogist was dedicated to Drs. Ross and Schaller. He was designated Orton Lecturer by the American Ceramic Society, and in 1950 he received the Distinguished Service award by the U. S. Department of the Interior. In 1969, the Clay Minerals Society recognized him as a Distinguished Member.

Earl B. Kinter

Earl B. Kinter, a member of AIPEA and a charter member of the Clay Minerals Society and a former Councilor of that society passed away on Aug. 2, 1975, after a long battle against cancer.

Mr. Kinter was born in Indiana, Pennsylvania and attended local schools and the Pennsylvania State University, receiving a B. S. in chemistry in 1935. Shortly thereafter he joined the Research Division of the Soil Conservation Service, U. S. Dept. of Agriculture as a research chemist and served at research stations in Texas and at Beltsville, Md. He transferred to the Materials Research Division of the Federal Highway Administration in 1949 and started on a pioneering research program in the applications of clay mineralogy and soil chemistry to highway problems, particularly to soil stabilization. At the time of his retirement he was Program Manager for research in utilization of waste materials in highway construction.

Earl is survived by his wife, Mrs. Dorris Kinter, of Washington, D. C., his mother Mrs. Mary Kinter, of Indiana, Pa., two sons and two daughters, and several brothers and sisters.

He was widely known among clay mineralogists and soil scientists in the United States and elsewhere, and was highly respected for his unassuming good nature, his ability to cut straight to the heart of complicated technical problems, and his unflinching helpfulness to people who sought his technical assistance. Unknown to many of his colleagues, he was an avid handball player, and in the last fifteen years of his life had collected a number of senior championships in that sport.

His premature death was a loss to the profession, and he will be greatly missed by all who knew him.

--S. Diamond

Charles Irvin Rich
Jan. 5, 1918 -- Sept. 15, 1975

Charles Irvin Rich was born on Jan. 5, 1918, in Rock Island, Illinois. His formal education was obtained from the University of Wisconsin and VPI & SU, having received both B.S. and Ph.D. degrees from the University of Wisconsin in 1940 and 1950, respectively, receiving his M.S. degree in 1941 from VPI and SU.

Trained in soils and agronomy, Dr. Rich was employed by the Soil Conservation Service and worked as a Soil Technologist during 1941-42 and later as a Soil Scientist from 1945-47 following three years of service as an officer in meteorology with the U. S. Air Force during World War II.

Dr. Rich first joined the VPI & SU faculty in 1947 as Assistant Professor of Agronomy. After returning from educational leave 1948-50, as Associate Professor of Agronomy, he has served the University continuously except for a six month period in 1965-66 during which he served as a Visiting Professor at Purdue University. He was appointed Professor of Agronomy in 1953.

Dr. Rich was named University Professor at VPI & SU in 1970, being one of the original six persons so honored when the University first established such recognition for a limited number (less than 1%) of outstanding educators.

His accomplishments in the areas of clay mineralogy and soil chemistry have been recognized nationally and internationally, and Dr. Rich has been named as Fellow in both the American Society of Agronomy and the American Mineralogy Society. In addition, he served as President of the Soil Science Society of America 1969-70, and as Secretary of the Clay Minerals Society during 1971-74. Other services as committee chairman or member to professional societies are too numerous to list.

Dr. Rich is either author or co-author of more than 60 technical writings including the editing of one book and the preparation of a number of chapters in significant books. His energetic dedication to his chosen field has influenced many students and colleagues. The advances in understanding the mineralogy of Southeastern soils would not have been made so rapidly without Dr. Rich's encouragement, assistance and leadership. He has served as guest lecturer at many international scientific meetings throughout the world.

A scholarship is being established at VPI & SU in the Agronomy Department to be known as the "Charles I. Rich Scholarship in Clay Mineralogy", which will be awarded as available to a graduate student studying in the soil-clay mineralogy area. Contributions to the scholarship can be made payable to the VPI Educational Foundation and mailed to the Department of Agronomy, VPI & SU, Blacksburg, Virginia 24061, to the attention of T. B. Hutcheson, Jr.

--T. B. Hutcheson, Jr.

CALENDAR OF MEETINGS

June 6-14, 1976. Natural Zeolites--Occurrence, Properties and Use, meeting in Tucson, Arizona; field trip (June 11-13) to deposits in northern Arizona and southern California; plus 1-day trip to Bowie chabazite/erionite deposit. (F. A. Mumpton, Dept. of Earth Sciences, State University College, Brockport, N. Y. 14420).

June 21-25, 1976. Physicochemical Behavior of Clays, short course at the Univ. of Wisconsin, Madison. For engineers, soil scientists, geologists, etc. Topics: structure of matter; clay mineralogy; identification and genesis; clay-water systems; soil formation and soil deposits; soil fabric and soil identification; soil-moisture interaction; fabric-engineering property relationships; soil stabilization; soil freezing and frost action. Fee: \$375. (Dept. of Engineering, Univ. of Wisconsin, 432 North Lake St., Madison 53706).

June 29, 1976. Dispersive Clays, symposium sponsored by ASTM Committee D-18 on Soil & Rock for Engineering Purposes, Chicago, Ill. Topic: erosion of dispersive clays (colloidal erosion, usually of clays with high levels of dissolved sodium in the pore water), which have caused much heretofore unexplained damage to civil-engineering structures. During ASTM annual meeting, June 27-July 2. (American Society for Testing & Materials, 1916 Race St., Philadelphia, Pa. 19103).

August 1-6, 1976. CLAY MINERALS SOCIETY (USA) Annual Meeting, Oregon State University, Corvallis, Oregon. Symposia on "Synthetic Silicates", "Amorphous Materials and Volcanic Deposits", and "Marine Sediments". (Dr. W. H. Slabaugh, General Chairman, Dept. of Chemistry, Oregon State University, Corvallis, Oregon 97331).

August 12-15, 1976. 25th INTERNATIONAL GEOLOGICAL CONGRESS, Sydney, Australia. Proposed Excursion for participants interested in clays and clay minerals; visits to Permian, Triassic and Jurassic flint clay deposits, analcite cherts, bentonites, kaolin and phrophyllite deposits. Price of the excursion: 115 to 140 US dollars. Deadline for registration for the excursion: May 30, 1976. (Registration and further information: Prof. F. C. Loughnan, The University of New South Wales, P. O. Box 1, Kensington, N.S.W., Australia 2033). See detailed announcement in News of International Clay Activities.

August 16-17, 1976. 6th KAOLIN SYMPOSIUM: Paleoclimatological, Paleogeographical and Geochemical Conditions of Kaolinization and Related Phenomena. Symposium to be held in connection with the 25th International Geological Congress, Sydney, Australia. (International Geological Correlation Program, Working Group--Genesis of Kaolins, Dr. M. Kuzvart, Secretary, Institute of Geological Sciences, Charles University, Albertov 6, 12843 Prague, Czechoslovakia).

August 27-Sept. 3, 1976. 7th KAOLIN SYMPOSIUM: Hydrothermal Kaolinization. "Conference and Field Investigations of Kaolin Deposits in Japan". Participants to meet on evening of Aug. 27, 1976 in Tokyo, Japan. Program: two days of sessions with lectures on kaolin deposits of Japan, Europe and America, and on laboratory methods of investigation; five days of field research--visits to kaolin deposits and kaolin washing plants. Deadline for registration: April 30, 1976. (Registration and further information: Professor Hideo Minato, Institute of Earth Science & Astronomy, College of General Education, University of Tokyo, 8-1, Komaba-3, Meguro-ku, Tokyo, JAPAN).

Sept. 28-Oct. 3, 1976. 7th CONFERENCE ON CLAY MINERALOGY AND PETROLOGY, Karlovy Vary, Czechoslovakia. Theme: clay mineralogy, clay petrology, clay geochemistry and clay geology. The Conference is organized by the Department of Petrology, Charles University, Prague and by the Institute of Geological Sciences, Charles University, Prague in cooperation with the Group for Clay Mineralogy and Petrology of the Czechoslovak Society for Mineralogy and Geology attached to the Czechoslovak Academy of Science. (Prof. Dr. Jiri Konta, Chairman, Organizing Committee, 7th Conference on Clay Mineralogy and Petrology, Department of Petrology, Faculty of Science, Charles University, Albertov 6, 128 43 Praha 2, Czechoslovakia).

Sept. 30-Oct. 1, 1976. 2nd NATIONAL CONGRESS OF THE ITALIAN GROUP OF A.I.P.E.A. will be held in Bari, Italy. (Information: Prof. G. Melidoro, Istituto di Geologia Applicata e Geotecnica, Facoltà di Ingegneria, via Re David 200, Bari, Italy).

Nov. 12, 1976. CLAY MINERALS GROUP, Autumn Meeting 1976, University of Reading, England. The overall topic for the scientific program will be "Advances in Analytical Techniques". (Local Organizer: Dr. A. C. D. Newman, Dept. of Soil Science, University of Reading, London Road, Reading RG1 5AQ).

June 2-4, 1977. THIRD MEETING OF THE EUROPEAN CLAY GROUPS, Oslo, Norway, Oslo University, Campus of Blindern. Two field trips to observe quick clays and development of tills and marine clays have been planned. Deadline for title and abstract of communication: Nov. 30, 1976. (Address correspondence to: Third Meeting of the European Clay Groups, c/o Prof. Ivan Th. Rosenqvist, Institutt for Geologi, Postboks 1047, Blindern, OSLO 3, Norway). See detailed announcement in News of International Clay Activities.

Aug. 1-6, 1977. FIFTH INTERNATIONAL CONFERENCE ON THERMAL ANALYSIS, Kyoto, Japan. Sponsored under the joint auspices of the Society of Calorimetry and Thermal Analysis of Japan, the Science Council of Japan and the Japan Society for Promotion of Science. (Prof. Syūzō Seki, Chairman, Organizing Committee, Osaka University).

Aug. 14-20, 1977. CLAY MINERALS SOCIETY (USA) and INTERNATIONAL COMMITTEE FOR THE STUDY OF BAUXITES, ALUMINA, AND ALUMINUM (ICSOBA) Joint Meeting in Jamaica, West Indies. In addition to possible joint sessions on the geology, mineralogy and geochemistry of bauxite, a symposium on the extraction of aluminum from non-bauxite materials is being developed. The latter will include communications on acid extraction of aluminum from kaolinite. (Dr. V. G. Hill, Chairman, Organizing Committee, 1977 CMS-ICSOBA Conference, Ministry of Mining and Natural Resources, P. O. Box 495, Kingston 5, Jamaica W.I.).

Sept. 15-20, 1977. FIRST POLISH CONFERENCE ON CLAY MINERALS (Mineralogy, Genesis, Physico-chemical Properties and Industrial Applications) will take place in Bolesławiec (Lower Silesia).

September, 1977. 8th KAOLIN SYMPOSIUM AND FIELD INVESTIGATION: (Spain and southern Italy). Leaders: Prof. Emilio Galan and Italian members of the IGCP Working Group. Program: two days of lectures in Madrid, three days field research - kaolin deposits near Guadalajara, Teruel, Cuenca, Valencia, visit to kaolin refinery plant, ceramic school and porcelain factory. Travel by plane from Valencia to Rome. Field investigation of kaolin deposits near Rome and Cerdeña (Sardinia) for three days. (Dr. M. Kuzvart, Secretary, IGCP Working Group, Prague, Czechoslovakia).

NEWS OF NATIONAL CLAY GROUPS

AUSTRALIAN CLAY MINERALS SOCIETY

The Sixth Conference of the Australian Clay Minerals Society will be held at the University of New South Wales, Sydney, during August, 1976. Final dates will be chosen to fit in with the 25th International Geological Congress to be held at Sydney University August 16-25, 1976.

One of the Symposia at the Geological Congress will be on the subject of Correlation of Kaolin Genesis and Age. This may be of interest to some members and it is hoped that attendance at our Conference will be increased. In this regard it is proposed to invite overseas visitors from the Kaolin Working Group to join our Conference for the days following their Symposium. This would provide an opportunity to meet the overseas visitors and some of them may also be prepared to speak at our Conference.

With regards to the organization of the Sixth Conference it is proposed to hold two Symposia and General Sessions as follows:

1. Symposium on Clay Minerals in Soils - Convenor Dr. W. W. Emerson, CSIRO Division of Soils, Adelaide
2. Symposium on Engineering Aspects of Clays - Convenor Associate Professor O. G. Ingles, School of Civil Engineering, University of N.S.W.
3. General Sessions - Convenor Dr. J. H. Patterson, CSR Research Laboratories, Roseville, N.S.W.

Any queries should be addressed to:
J. H. Patterson
Conference Secretary
c/o CSR Research Laboratories
P. O. Box 39
Roseville, N.S.W. 2069

CLAY ACTIVITIES IN BRAZIL

Under the sponsorship of the Department of Natural Resources of SUDENE (Development Authority for Northeast of Brazil) the 2nd Symposium on Brazilian clays took place in Recife, capital of the State of Pernambuco. The meeting was coordinated by Egmar Hermann de Oliveira e Silva from SUDENE and by Pérsio de Souza Santos, from Instituto de Pesquisas Tecnológicas and Escola Politécnica of the University of São Paulo.

During the mornings of Mar. 31 - April 4, 1975 two short courses were given: Prof. G. W. Brindley, Pennsylvania State University, lectured on Clay Mineralogy, treating the following topics: Aspects of clay mineralogy; Crystal chemistry of clays and related layer silicates; Quantitative mineral analysis by X-ray diffraction; Thermal transformations of clays and clay minerals. Prof. W. D. Keller lectured on Geology of Clays, especially the uses of electron scanning microscopy for the study of the genesis of kaolin clays, ball clays and fire clays. Three evening lectures were given: Dr. W. H. Bundy, Vice-President for Research of Georgia Kaolin Co., spoke on Rheology of Kaolin Clays for Paper; Dr. Volker Eisenlohr, from Caulim da Amazônia, Belém, Pará, described the Jarí Project for producing kaolin for paper; Prof. J. C. Cabrera, Visiting Professor from the British Council to the Federal University of Paraíba, Campina Grande, Paraíba, lectured on Clays in Soil Mechanics.

The following papers were presented by invited speakers:

1. Clay Research --Prof. Nielson Rodrigues da Silva, Director of the Instituto of Geosciences, University of Pernambuco.
2. The "Clay Project" developed by SUDENE--Egmar Hermann, Bernardino Moura, Zenaide Fonseca, SUDENE; Antonio de Pádua, Rodrigues de Araujo and José C. Tenorio, Instituto Tecnológico de Pernambuco, Recife, Pernambuco.
3. Rheological Properties of Brazilian Smectitic Clays--Alexandre Romildo Zandonadi, Instituto de Pesquisas Tecnológicas, SP.
4. Industrialization of Kaolin Clays from the Northeast of Brazil--Abel Ribeiro Filho, Caulisa and Indústrias de Papel Símio, São Paulo.
5. Brazilian Kaolins and Ball Clays for Sanitaryware--Frederico B. Angeleri, Celite S.A., São Paulo.
6. Clays and Other Raw Materials for Structural Ceramics in Brazil--Luciano Barzaghi, Cerâmica Porto Ferreira, Porto Ferreira, SP and President-Elect of the Brazilian Ceramic Society.
7. Clays from the Northeast of Brazil for Sealing Water Channels for Irrigation--Heber Carlos Ferreira, Centro de Tecnologia, Federal University of Paraíba, Campina Grande, Paraíba.

8. Brazilian Vermiculites--Josephina P. Roseburg, Institute of Chemistry, University of São Paulo, SP.
9. High Resolution Transmission Electron Microscopy of Brazilian Asbestos--Helena Souza Santos, Centro de Microscopia Eletrônica, Institute of Physics, University of São Paulo.
10. Clay Deposits from Serra dos Cavalos, Caruaru, Pernambuco--José C. Tenorio, Instituto Tecnológica de Pernambuco, Recife, Pernambuco.
11. Kaolin Clays from the States of Minas Gerais e Espírito Santo; Clays from the Recôncavo da Bahia--Paschoal Giardullo, Braminer, São Paulo.
12. Kaolins and Other Clays from the States of Rio Grande do Sul and Santa Catarina--Milton L. L. Formoso, Institute of Geosciences of the University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul.
13. Genesis of Brazilian Soils--Adolpho Melfi, Institute of Geosciences of the University of São Paulo, SP.
14. Alteration of Basalt Rocks in Brazil--J. E. S. Farjallat, Division of Applied Geology, Instituto de Pesquisas Tecnológicas of São Paulo, São Paulo.
15. Clays and Bauxites from the State of Pará--Clara Pandolfo, SUDAM, Belém, Pará.
16. Mineralogy of Brazilian Soils--Antonio C. Moniz, Depto. of Pedology, Instituto Agronômico, Campinas, SP.
17. Physical and Chemical Criteria for Selection of Clays for Whitewares--Annibal C. Acioly and Humberto B. Araujo Jr., IASA, Recife, Pernambuco.
18. Characterization of Brazilian Nickel Clay Minerals--Jefferson Vieira de Souza, Instituto de Pesquisas Tecnológicas de São Paulo, SP.
19. Fireclays from the Northeast of Brazil for Refractory Production--Kenji Suenaga, Companhia Pernambucana de Refratários, Cabo, Pernambuco.
20. Clays from the State of Sergipe--Marcos Mendonca, CONDESE, Aracaju, Sergipe.
21. The Lightweight Industry from Expanded Clay; Fabrication, Processes and Uses--Ayrton Mitidieri, Cinastita S.A., São Paulo.
22. Clay Deposits of the Northeast of Brazil--Eliezer Braz, Departamento Natural da Produção Mineral, Recife, Pernambuco.

The Symposium was attended by 127 people from industries, research and government institutes and universities. The papers will be published as a special number of the Journal Cerâmica, from the Brazilian Ceramic Society, as the first Symposium.

After the Symposium, a four-day program of visits was organized in the States of Pernambuco, Rio Grande do Norte and Paraíba to several ceramic plants and clay deposits of residual and transported kaolin clays, of diatomite and of smectitic clays.

Following the Symposium, Drs. Bundy and Keller visited the sedimentary kaolin clay deposits in the Jarí and Capim rivers in the Amazon region; afterwards, Dr. Keller went to São Paulo to visit some clay deposits and institutions. As a guest of the Brazilian Ceramic Society, he gave a lecture on scanning electron microscopy of kaolin clays at the Society's 19th Annual Meeting in Guarapari, State of Espírito Santo.

Dr. Brindley visited clay deposits and institutions in the States of Bahia and Minas Gerais. In the Ceramics Meeting in Guarapari, as a distinguished guest, he gave a lecture on the Thermal Transformations of Clay Minerals and received a silver plate as Honorary Member of the Brazilian Ceramic Society.

--Pérsio de Souza Santos
Liaison Officer of AIPEA, Brazil

GROUPE FRANCAIS DES ARGILES

The theme of the Nov. 18, 1975 meeting of the Groupe Francais des Argiles was Interactions Argiles--Molécules d'Intérêt Biologique (Synthèses Prébiotiques). The following papers were presented:

- M. C. PONNAMPERUMA Conférence: The role of clay in the origin of life.
- MM. G. PONCELET, A. T. DELVAUX-VAN ASSCHE and J. FRIPIAT Synthèses prébiotiques catalysées par des surfaces minérales.
- M. A. DRACK Synthèse prébiotique de biopolymères en phase aqueuse sur des matrices inorganiques.
- M. P. CHASSIN Influence de la stéréochimie des diols sur la formation des complexes interfoliaires de la montmorillonite calcique.
- M. F. X. DELOYE Utilisation du calcul automatique en analyse minéralogique quantitative.
- M. P. CHASSIN Signification de la mesure des surfaces totales de la montmorillonite avec l'éthane 1,2 diol.
- Mme. R. GLAESER and M. J. FRIPIAT L'hydratation des smectites et répartition des charges dans les couches octaédriques et tétraédriques des montmorillonites.

MM. P. G. ROUXHET, H. JACOBS, C. TENRET-NOEL and NGO SAMUDACHEATA Etude des bandes de vibration de valence OH de la Kaolinite.

Members of the Conseil d'Administration elected at this meeting are as follows: Mlle. Caillère, M. Chaussidon, Mme. Fleurence, MM. Fripiat, Gérard-Hirne, Gielly, Hénin, Mamy, Millot, Nicolas, Oberlin, Orcel, Pédro, Pezerat, Robert, Steinberg, Tchoubar, Wey.

The theme of the March 16, 1976 meeting of the group was L'utilisation Industrielle des Argiles. The following papers were presented:

- M. J. CASES Conférence: L'utilisation industrielle des argiles.
M. P. GARIN (Société: UNION MINERALE) Préparation des argiles par voie sèche.
M. J. L. CARDINI (Société: MINEMET) La préparation des argiles pour l'industrie du papier.
M. KEUFER (Société: BLANCS MINERAUX DE PARIS) L'emploi des kaolins et argiles kaoliniques.
M. J. P. LATAPIE (Société: A.G.S.) Les argiles: céramiques et réfractaires.
MM. C. SITTLER and N. TRAUTH L'argile, matière première traditionnelle en Alsace.
MM. J. LEMAITRE, M. BULENS, B. DELMON Influence de minéralisateurs finement dispersés sur la cuisson et la résistance mécanique des argiles cuites.
MM. M. THIRY and F. WEBER Convergence de comportement entre les interstratifiés kaolinite--smectite et les fire-clays.
MM. B. SIFFERT and T. STUTZMANN Contribution à l'étude du mécanisme d'adsorption d'acétamide et de polyacrylamides sur les argiles.
MM. J. L. GUTH, F. STOESEL, R. WEY Polymérisation du benzène en polyparaphénylène dans une montmorillonite contenant des cations Cu(II).

The President of the Groupe Français des Argiles is R. Wey and the Secretary is R. Le Dred. The address of the Secrétariat is: E.S.C.M. Laboratoire de Chimie Minérale
3, rue Alfred Werner, 68093 MULHOUSE CEDEX, FRANCE

CLAY MINERALS GROUP OF GREAT BRITAIN AND IRELAND

A recent meeting held in the Lecture Theatre of the Geological Museum, London, was well attended and covered a full day's sessions on "Environmental and conservation aspects of clay mineralogy". The following papers were presented:

- R. L. PARFITT, J. D. RUSSELL, and V. C. FARMER. Infrared evidence on the mechanism of phosphate adsorption on goethite surfaces.
M. H. B. HAYES. Interaction between organic chemicals and clays.
G. C. ALEXANDER and H. G. HEAL. Ion-exchange properties and possible applications of weathered Antrim basalts.
R. E. FERRELL, JR. Aspects of trace metal-clay mineral geochemical reactions.
H. J. L. WRIGHT and J. A. KITCHENER. The problem of de-watering clay slurries.
R. K. TAYLOR. Influence of mineralogy on shear strength and other geotechnical properties of colliery discards.
D. J. OLIVER. Land restoration after fuller's earth extraction.

At the Group's Annual General Meeting Mr. D. Mitchell (Watts, Blake, Bearne and Co. Ltd., Newton Abbot, Devon) was elected Chairman for the next three years and Dr. I. R. Basham (Institute of Geological Sciences, London) as Treasurer. The posts of Secretary and Principal Editor continue to be filled by Mr. J. A. Bain and Dr. J. L. M. Lambert, respectively.

The Spring Meeting of the Group was held on Tuesday, April 6, 1976 at the Royal Society's apartments in Carlton House Terrace, London. This was a special gathering held in association with the Centenary Celebrations of the Mineralogical Society of Great Britain and Ireland which contained a varying program of addresses, scientific sessions, social activities and excursions, all within the overall theme of "Mineralogy: Towards the 21st Century". The Group's own meeting was arranged round the topic of "Current and future trends in clay mineralogy" and an address on this subject was given by Prof. G. W. Brindley, Founder Chairman of the Group and an Honorary Member of the Society. Exhibits of some of the publications, records, notices and archival material illustrating the past and present

activities of the Group were also on view.

A separate report outlining progress made in establishing a joint European "Clay Minerals" journal based on the Group's present scientific periodical appears elsewhere in this Newsletter.

During the 1975 International Clay Mineral Conference in Mexico City Dr. V. C. Farmer and Mr. J. A. Bain, on behalf of the Clay Minerals Group of the Mineralogical Society, extended an invitation to AIPEA to hold the 1978 International Clay Conference in Great Britain. This invitation was accepted by the General Assembly of AIPEA and plans for the meeting are now being developed.

--J. A. Bain, Hon. Secretary
Clay Minerals Group
Institute of Geological
Sciences
64/78 Gray's Inn Road
London WC1X 8NG

CLAY MINERALS GROUP OF THE HUNGARIAN GEOLOGICAL SOCIETY

The Clay Minerals Group of the Hungarian Geological Society was formed in 1960. Its aim is to provide a scientific forum for clay research in various fields of geological prospecting, science and technology. Since 1974 it has had a special committee for the study of zeolites. President of the group is Prof. Ernő Nemez, Department of Mineralogy, University of Chemical Industry, H-8200 Veszprém, Hungary. The Secretary of the Group is István Viczián, Hungarian Geological Institute, Népstadion ut 14, H-1143, Budapest, Hungary.

The program of the scientific sessions held during the last two years was as follows:

- Nov. 22, 1974 E. Radnóty: New geological observations and conclusions concerning the Oligocene refractory clay deposits in the Romhány area, N. Hungary.
Dec. 13, 1974 Z. Juhász: Transformation of the crystal structures of montmorillonite and pyrophyllite by means of catalyzed mechanochemical reactions.
Jan. 13, 1975 F. Szántó: Information on the Second Conference of the European Clay Groups held in Strasbourg, 1974.
I. Dékány, F. Szántó, L. Gy. Nagy: A study of selective liquid-adsorption and swelling of different organophilic montmorillonites.
Feb. 10, 1975 I. Viczián: A review of the clay mineralogy of Hungarian sedimentary rocks with special respect to the significance of clay mineral associations in diagenetic zonation.
March 17, 1975 T. Paál: Comparison of the engineering-geological properties of several Tertiary clays of the Budapest area by means of mathematical statistical methods.
March 24, 1975 I. Viczián: Information on the Symposium "Rock-Water Interaction" held in Prague, 1974.
E. Pécsi-Donáth, O. Libor, L. Kuna-Gráber: Adsorption of Cu, Pb, Zn and Cd ions on Miocene bentonites from Istenmezeje and Mád, NE Hungary.
April 14, 1975 G. Bidló: Effect of organic acids on clay minerals (Part II).
May 19, 1975 Gy. Lelkes-Felvari: Study of the layer silicates in some Pre-Permian Paleozoic rock types along the Balaton-line.
L. Ravasz-Baranyai, I. Viczián: A new mixed-layer clay mineral: interstratified biotite-chlorite in the metamorphic rocks found in bore-hole Hont No. 1, N. Hungary.

A new textbook on clay mineralogy was published in Hungarian by Prof. E. Nemez:

Nemez, E.: Agyagásványok. - Akadémiai Kiadó, Budapest, 1973, pp. 507, price: Ft 95.

It contains chapters on crystal structure, determination and genesis of clay minerals. A new edition of the book in English is planned.

--István Viczián
Secretary

ITALIAN GROUP OF A.I.P.E.A.

A three day meeting on "Clay Mineralogy and Soil Mechanics - Application to Landslides Investigation" was held in Pavia (May 15-17, 1975) and included a one-day field trip in the landslide area of the Northern Apennines (Pavia Province). Twenty papers were presented and included an invitational talk by Prof. I. Th. Rosenqvist of the Geological Institute, Oslo University. There were 120 participants including 15 from other European countries. The Proceedings of the meeting, including the discussions will be printed as a special 1975 issue of the bulletin GEOLOGIA APPLICATA E IDROGEOLOGIA and may be obtained from: Prof. G. Melidoro, Istituto di Geologia Applicata e Geotecnica, Facoltà di Ingegneria, via Re David 200 - Bari, Italy.

The Proceedings of the International Seminar "Clay Mineralogy and Ceramic Processes and Products" held in Milan, Sept. 1973, in collaboration with the U. S. National Science Foundation are available from: Dr. C. Palmorari, Centro Ceramico, Facoltà di Ingegneria, viale Risorgimento 2 - Bologna, Italy. The Proceedings include two volumes, one devoted to general lectures (delivered by Prof. G. W. Brindley and Prof. R. E. Grim), communications and discussions (by P. Cucka, W. O. Williamson, G. W. Phelps, H. H. Murray, A. Baudran, J. Konta, K. Cokhale, D. M. Rao, E. Galan, S. De Aza, J. Espinosa, P. Duran, D. A. Estrada, and several Italian specialists); the second volume is a monograph on the "Italian Occurrences of Ceramic Clays".

The 2nd National Congress of the Italian Group of A.I.P.E.A. will be held in Bari (end of September, beginning of October, 1976). Information may be obtained from: Prof. G. Melidoro, Istituto di Geologia Applicata e Geotecnica, Facoltà di Ingegneria, via Re David 200 - Bari, Italy.

Six Italian participants attended the 1975 International Clay Conference in Mexico City. Prof. F. Veniale was elected Vice-President of A.I.P.E.A. during this Conference.

CLAY ACTIVITIES IN THE NETHERLANDS

Until recently, Dutch students of clays were not organized in a separate group. In 1975, however, about 25 workers in the field of geology, geochemistry, soil science, ceramics, etc., met on two occasions. For the time being, most participants are in favor of an independent "interest" group. An inquiry was set up to survey the main fields of interest.

The following talks were presented during the meetings:

- May 22, 1975 Dr. A. Breeuwsma. Clay mineral composition of Dutch marine and fluvial sediments.
Oct. 8, 1975 Dr. C. A. J. Appelo. Chemical stability of clay minerals: A theoretical and experimental approach.

The first meeting in 1976 was held on January 21, 1976.

--A. Breeuwsma
Netherlands Soil Survey Inst.
Marijkeweg 11
Wageningen, The Netherlands

CLAY MINERALS SECTION OF MINERALOGICAL SOCIETY OF POLAND

The Clay Minerals Section of the Mineralogical Society of Poland was established in 1973. Since the organization of the Section several different forms of scientific activities have been undertaken.

Symposium on the Physical Chemistry of Geological Processes. A second scientific meeting on this topic (the first was held in 1973) was held at the Academy of Mining and Metallurgy, Krakow on Oct. 3-4, 1974. Fifteen papers were presented during the Symposium. The transformation of layer silicates during different geological processes was the essential subject of the Symposium. General problems of the transformation of clay minerals were presented by Prof. V. A. Frank-Kamenetzky (University of Leningrad, USSR) and Dr. L. Stoch. A colloquium on the dissolution of minerals in water solutions and melts was held on the second day of the meeting.

Symposium on "Clay Minerals of Soils". A Symposium on clay minerals of soils was organized under the direction of Prof. A. Kabata-Pendias at the Institute of Agriculture in Puławy, on Sept. 29-30, 1975. Twenty papers on mineralogy of soils, physicochemical properties of clay minerals and mineralogical aspects of soil fertility were presented.

Seminar: Properties of Clay Minerals and Methods of Examination. This Seminar is devoted to the problems of physicochemical and technical properties of clay minerals. Lectures take place once a month in the Institute of Geology and Mineral Deposits, Academy of Mining and Metallurgy, Krakow. Scientists of mineralogical, geological and ceramic research institutions as well as postgraduate students participate in the seminars.

Postgraduate Course: Modern Methods of Clay Minerals Investigation. A postgraduate course on this topic has been initiated this year in the Department of Geology, University of Warsaw.

International Contacts and Cooperation. During the last two years the Clay Minerals Section was visited by Prof. V. A. Frank-Kamenetzky (Leningrad, USSR), Prof. J. Konta (Prague, Czechoslovakia), Prof. I. P. Eberhart and Dr. Y. Tardy (Strasbourg, France), Dr. L. Gerei (Budapest, Hungary), Dr. V. Novak (Bratislava, Czechoslovakia), and Dr. Z. Maksimovic (Beograd, Yugoslavia).

Many members of the Section participated in the International Conference of Thermal Analysis in Budapest, Hungary. Dr. E. Stepkowska and Dr. L. Stoch presented papers at this Conference.

Members of the Council of the Clay Minerals Section, Prof. A. Kabata-Pendias, Dr. A. Langier-Kuźniarowa, and Dr. E. Stepkowska were active participants in the International Clay Conference in Mexico City.

Dr. K. Szpila and Dr. A. Wiewióra presented papers on mineralogy and geochemistry of kaolins of Poland at the Conference on "Genesis and Age of Kaolins" organized by the ICGP Working Group at the University of Greifswald, DDR.

Books and Publications. Two books on clay minerals have been recently published in Poland: "Minerały Ilaste" (Clay Minerals) by L. Stoch, Wydawnictwa Geologiczne, Warszawa, Poland, 1974, 503 pp., 179 fig., 1500 bibl.; and "Metody Badań Gruntów Spoistych" (Methods of Compact Soils Investigation) by B. Grabowska-Olszewska (ed.), Wydawnictwa Geologiczne, Warszawa, Poland, 222 pp., 73 fig.

Several recent number of the monograph series "Prace Mineralogiczne" (Mineralogical Transactions) edited by the Mineralogical Commission of the Krakovian Branch of the Polish Academy of Science are devoted to clays and clay minerals.

- No. 36 Studies on montmorillonite sorption complexes, by Z. Kłapyta (55 pp., 17 fig. in Polish, English abstr.) 1974.
No. 39 Iron in kaolins of Lower Silesia, by W. Sikora (76 pp., 23 fig., in Polish, English abstr.) 1974.
No. 41 Mineralogy of kaolins of Lower Silesia, by L. Stoch and W. Sikora (70 pp., 24 fig., in Polish, English abstr.)

These publications can be ordered from: Ars Polona
Krakowskie Przedmieście 7
00-068 Warszawa, POLAND

Future Activities. The 3rd Symposium on "Physical Chemistry of Geological Processes" is to be held in May 1976 in the Academy of Mining and Metallurgy, Krakow. One of the topics to be discussed is the physicochemistry of clay mineral forming processes.

The First Polish Conference on Clay Minerals (Mineralogy, Genesis, Physicochemical Properties and Industrial Applications) will take place in Bolesławiec (Lower Silesia) Sept. 15-20, 1977.

--L. Stoch
Academy of Mining and
Metallurgy
Krakow, Poland

ROMANIAN CLAY GROUP

The Romanian Clay Group is relatively young, the first National Clay Conference being held in Bucharest in November 1973. Prof. Ionavich, formerly in the Ministry of Geology and Petroleum, was a leader in the organization effort and has been assisted by Dr. Gh. Neascu, Dr. O. Anton, Dr. S. Radan, Dr. Gh. Gâtă, and others. The Proceedings of the First National Conference has been published in "Studii tehnice si economice", Seria I, No. 13, 1975.

The 1975 meeting of the Romanian Clay Group was held April 11-12 and the session was opened by Prof. Ionavich. There were 14 papers on the first day and 8 papers the second day; the number of participants was 67 the first day and 45 on the second day. Among the papers presented was a report on the influence of the coke obtained during the process of underground combustion upon some clay materials present in the deposit; the presence of clinoptilolite in some volcanic ash from Transylvania was described in another paper.

Dr. Dumitru N. Todor has published a book, "Thermal Analysis for Minerals", Editura Tehnica, Bucuresti, 1972. It is also being published in English by the Kent Publishing Co.

THE CLAY MINERALS SOCIETY (USA).

The 25th Annual Clay Minerals Conference is scheduled for August 1-6, 1976 at Oregon State University, Corvallis, Oregon

This meeting is being sponsored by members of the Departments of Soil Science, Oceanography, Geology, Civil Engineering, and Chemistry.

In addition to General Sessions the following Symposia have been arranged: Synthetic Silicates, Amorphous Materials and Volcanic Deposits, and Marine Sediments. A Field Trip to the Oregon Coast and Coast Range is planned for August 2. An Indian Salmon Barbecue will be featured on August 4.

Inquiries may be addressed to: W. H. Slabaugh, Local Chairman
Department of Chemistry
Oregon State University
Corvallis, Oregon 97331

Meeting places for the period 1977-1979 and Local Chairmen are as follows:

1977 (August):	Kingston, Jamaica	1978 (August):	Bloomington, Indiana
	Dr. V. G. Hill		Dr. H. H. Murray
	Ministry of Mining and		Department of Geology
	Natural Resources		Indiana University
	P. O. Box 495		1005 E. 10th Street
	Kingston 5, Jamaica		Bloomington, Indiana 47401

1979 (August): Atlanta, Georgia
Dr. W. E. Moody
Ceramic Engineering
Georgia Institute of Technology
Atlanta, Georgia 30332

NEWS OF INTERNATIONAL CLAY ACTIVITIES

THIRD MEETING OF THE EUROPEAN CLAY GROUPS

As announced at the meeting in Strasbourg (1974) the Nordic Society for Clay Research invited the European colleagues to the Third Meeting of the European clay groups to be held in Oslo, Norway, June 2-4, 1977. The meeting will be held at Oslo University, Campus of Blindern.

Membership of the meeting will be open to the members of the clay groups of Belgium, France, Germany, Great Britain, Italy, the Nordic countries and Spain. Any other scientist wishing to attend the meeting as an individual may be registered. The registration fee of the meeting will be 100 Nkr.

Thursday, Friday and Saturday mornings will be devoted to scientific sessions and discussions. Two field trips will be arranged: Field trip A, Saturday afternoon - "Quick clays in the surrounding of Oslo"; Field trip B, Saturday afternoon and Sunday - "Numedal, development of tills and marine clays". The meeting has no specific theme--any communication relative to clays and clay minerals may be proposed. The time available for the presentation of each paper will be 20 minutes plus 10 minutes for discussion. The number of communications has to be restricted to about 50. Posters may be arranged for informal presentations and discussions.

Extensive abstracts will be required of all contributions. The abstracts will be distributed in advance of the conference to participants who have paid their registration fee. There is no arrangement for publication of full papers.

150 rooms have been reserved at the University Centre "Panorama Sommerhotell" (20 minutes walk, 5 minutes by train to Blindern). Present prices per person (breakfast included: Shared room 70 Nkr, Single room 100 Nkr.

In September 1976 a second circular will be sent to all the European clay groups and to those individuals who have returned the preliminary registration form. The second circular will require: 1. a definite registration, 2. the title and a short abstract of the communication proposed for presentation not later than Nov. 30, 1976, 3. extensive abstracts of accepted papers, not later than Feb. 20, 1977, 4. registration fees, not later than Feb. 20, 1977.

All correspondence should be addressed to: Third Meeting of the European Clay Groups
c/o Professor Ivan Th. Rosenqvist
Institutt for Geologi
Postboks 1047
Blindern, OSLO 3, Norway

25th INTERNATIONAL GEOLOGICAL CONGRESS--AUGUST 1976--SYDNEY, AUSTRALIA: PROPOSED EXCURSION FOR PARTICIPANTS INTERESTED IN CLAYS AND CLAY MINERALS AUGUST 12-15, 1976.

Thursday, 12th August

Depart Sydney 7 a.m.
to Swansea - analcite cherts and mixed layered clays in Late Permian coal measures.
Singleton - glendonites and septarian concretions in L. Permian marine beds.
Muswellbrook - E. Permian flint clays in coal measures.
Scone - L. Permian bentonite in coal measures.
Wingen - E. Permian flint clays and mullite in coal measures.
Night at Scone - distance 360 km.

Friday, 13th August

Depart Scone 8 a.m.
to Merrygoen - E. Jurassic flint clay.
Dunedoo - L. Permian flint clay and glossopteris-bearing cherts.
Gulgong - Tertiary kaolin deposit.
Botobolar - Pyrophyllite schists in Ordovician Meta Sediments.
Night at Mudgee - distance 300 km.

Saturday, 14th August

Depart Mudgee 8 a.m.
to Glen Alice - dawsonite, nordstrandite and alumohydrocalcite in L. Permian marine strata.
Capertee - scenic stop
Perry's Lookdown - E. Triassic flint clay. Scenic stop.
Katoomba - Scenic stop.
Londonderry - inspect bore of E. Permian flint clays and laterites.
Night at Moss Vale - distance 350 km.

Sunday, 15th August

Depart Moss Vale 8 a.m.
to Meryla Pass - L. Permian flint clays and Kaolin tolsteins in coal seam.
Cambewarra Mtn. - Late Permian Flint clays and red beds. Scenic stop.

Thirroul - Late Permian kaolin tonsteins in coal seam.

Bald Hill - Scenic stop.

National Park - E. Triassic flint clay and red beds ("chocolate slates"). Examination will also be made of the dickite-bearing Hawkesbury Sandstone.

Return to Sydney approx. 5 p.m.

Transport: either minibus or private cars.

Accommodation: Standard motels. Two persons to a room. Single room accommodation additional, approximately \$6 per night.

FOR FURTHER INFORMATION WRITE TO: Dr. F. C. Loughnan
School of Applied Geology
University of New South Wales
P. O. Box 1
Kensington, N.S.W. Australia 2033

7th SYMPOSIUM ON GENESIS OF KAOLIN: "CONFERENCE AND FIELD INVESTIGATIONS OF KAOLIN DEPOSITS IN JAPAN".

AUGUST 27 - SEPTEMBER 3, 1976.

Japanese members of working group of "Genesis of Kaolin" invite the members of "Working Group of Genesis of Kaolin" (International Geological Correlation Programme) to Japan in the summer of 1976 after the time of "Kaolin Symposium" in the 25th International Geological Congress in Australia.

PRELIMINARY SCHEDULE

- Aug. 26 (Thur.) Leave SYDNEY at night; arrive at TOKYO in the morning of Aug. 27 (Fri.)
- Aug. 27 (Fri.) The 1st day of session, in TOKYO
2:00 p.m. Opening session.
3:00 p.m. Session I. Kaolin deposits in Japan.
Reception in the evening.
- Aug. 28 (Sat.) The 2nd day of session, in TOKYO.
9:30 a.m. Session II. Kaolin deposits in Europe and America.
Session III. Technical methods in study of clay minerals.
- Aug. 29 (Sun.) The 1st day of field investigations
TOKYO-NAGOYA (by train), NAGOYA-KASUGAI (lunch) - NAKATSUGAWA kaolin deposit (sedimentary and residual) -HARA kaolin deposit (sedimentary)-NAGOYA (by bus).
- Aug. 30 (Mon.)
NAGOYA-LAKE BIWA-MT.HIEI-KYOTO (by bus). Sightseeing and lunch, KYOTO-HIROSHIMA (by train).
- Aug. 31 (Tues.) The 2nd day of field investigations.
HIROSHIMA-SHOBARA (by train), SHOBARA-SHOKOZAN mine (by bus), kaolin minerals in "Roseki" deposits (hydrothermal) (lunch), SHOKOZAN mine-SHOBARA (by bus), SHOBARA-HIROSHIMA (by train).
- Sept. 1 (Wed.)
HIROSHIMA-MIYAJIMA (by bus and ferry boat), Shinto shrine at seashore, MIYAJIMA-HIROSHIMA (by ferry boat and bus), HIROSHIMA (by train) (lunch); arrive at TOKYO in the evening.
- Sept. 2 (Thurs.) The 3rd day of field investigations.
TOKYO-FUKUSHIMA (by train), FUKUSHIMA (lunch) -ITAYA (by bus), kaolin deposit (hydrothermal and volcanic), Zeolite deposit, Refining factory of kaolin and zeolite, ITAYA-IIZAKA SPA (by bus).
- Sept. 3 (Fri.) The 4th day of field investigations.
IIZAKA SPA-TAKAHATA (by bus), Refining factory of zeolite, TAKAHATA-ZAO VOLCANO (lunch) (by bus), volcanic kaolin, ZAO VOLCANO-SHIROISHI-or-SENDAI (by bus), SHIROISHI or SENDAI-TOKYO (by train); arrive at TOKYO in the evening.

Informal Field Investigations on Iwate Clay Mine (Flint Clay)

- Sept. 3 (Fri.)
Arrive the 4th day of field investigations, SHIROISHI or SENDAI-MORIOKA (by train).
- Sept. 4 (Sat.) Field investigations
MORIOKA-IWATE clay mine (by car), Flint clay deposits (lunch), IWATE clay mine-MORIOKA (by car), MORIOKA-TOKYO (by train, sleeping car).

Sept. 5 (Sun.)

Arrive at TOKYO early in the morning.

Note: 1. Hotel charges in TOKYO --\$21 (single room), \$16 (double room per person).
2. Fee for field investigations, including transportation, accommodation, food, etc. \$200-250 (not including the informal trip to IWATE clay mine).

CONTACT: Hideo Minato, Institute of Earth Science and Astronomy, College of General Education, University of Tokyo, 8-1, Komaba-3, Meguro-ku, Tokyo, JAPAN

INTERNATIONAL GEOLOGICAL CORRELATION PROGRAM: WORKING GROUP - "GENESIS OF KAOLINS"

Extensive reports of the IGCP Working Group on "Genesis of Kaolins" have appeared in previous Newsletters (No. 9, pp. 14-15; No. 10, pp. 9; No. 11, pp. 12-13). Activities since the last report are summarized below.

4th Kaolin Symposium (Mexico 1975). Papers covered various aspects of kaolin occurrences and properties in Mexico, Brazil, France, England, Germany, Czechoslovakia, Italy, Spain, USSR, USA and Japan. These papers will be published in the Proceedings of the Mexico City AIPEA Conference.

5th Kaolin Symposium-Kaolinization of the Bohemian Massif (Dresden 1975). This was organized by Prof. M. Störr. Thirty papers were presented during two days of sessions; these are to be published in Zeitschrift für Geologie.

Field investigation of kaolin deposits following the respective Symposia have been as follows: Czechoslovakia (1971), Spain (1972), southern France (1973), Cornwall and Brittany (1974), Georgia, USA (1975; leaders - Dr. Patterson, Prof. Murray, 26 participants; during 4 days Tertiary and Cretaceous sedimentary kaolins were studied); Mexico (1975; leader - Prof. Keller, 5 days, 5 deposits of hydrothermal and sedimentary kaolin were visited), GDR (1975; leader - Prof. Störr, 40 participants from 15 countries during 4 days visited 10 localities. The field guide is a modern monograph of kaolin deposits of GDR). Printed guides were prepared for all excursions.

Plans for future meetings and field research include the following:

6th Kaolin Symposium on Paleoclimatological, Paleogeographical and Geochemical Conditions of Kaolinization and Related Phenomena (Australia, August 16-17, 1976) (see detailed announcement by Dr. F. C. Loughnan in this Newsletter, pp. 17-18).

7th Kaolin Symposium on Hydrothermal Kaolinization (Japan, August 27 - Sept. 3, 1976) (see detailed announcement by Dr. Hideo Minato in this Newsletter, pp. 18-19).

8th Kaolin Symposium and Field Investigation (Spain and southern Italy, September, 1977). Leaders: Prof. Emilio Galan and Italian members of the WG Program: two days of lectures in Madrid, three days of field research - kaolin deposits near Guadalajara, Teruel, Cuenca, Valencia, visit to kaolin refinery plant, ceramic school and porcelain factory. Travel by plane from Valencia to Rome. Field investigation of kaolin deposits near Rome and Cerdega (Sardinia) for three days.

9th Kaolin Symposium and Field Investigation (GFR, Austria, Hungary, 1978). Leaders: Prof. Köster, Dr. Wieden, Dr. Varju. The symposium will follow after the 1978 International Clay Conference in Great Britain.

Field investigation of kaolin deposits in Romania, Poland, probably Ukrainian SSR, and field study of recent weathering in tropical Africa are under consideration for later occasions.

The Working Group has more than 90 members from 34 countries. An additional 14 countries have been invited to participate in the Project. Thus, all countries that produce more than 1000 tons of washed kaolin annually will cooperate in the Project.

Possible cooperation in the spheres of common excursions and sessions with the Working Group on Lateritization Process (IGCP Project No. 129) was proposed in the 1975 session of the Executive Committee in Dresden.

--Dr. M. Kuzvart, Secretary
IGCP Working Group
Institute of Geological Sciences
Charles University
Prague 2, Czechoslovakia

8th HUNGARIAN DIFFRACTION CONFERENCE

This conference was held at Tihany, Hungary, April 22-26, 1976 and was organized by the Roland Eötvös Physical Society.

The first Hungarian crystallographic meeting was held in 1962 with the participation of a rather small number of Hungarian scientists. Thereafter every second year a conference was arranged at different places but preferably on Lake Balaton. As the number of invited speakers and participants from abroad increased it was decided to switch to English as the language of scientific communication; this step was taken in 1968. Topics for these meetings covered the entire spectrum of diffraction studies; however, special sessions have been planned to emphasize current interests of Hungarian crystallographers (e.g. special sessions on gas electron diffraction were organized in 1972 and on liquid structure studies, respectively, in 1974).

It was a great honor and challenge when the seventh conference of this series was chosen to become the Second European Crystallographic Meeting. After this exceptional occasion the 8th Hungarian Diffraction Conference is expected to regain its regular conformation, i.e., open to everybody, having about 150 - 200 participants, half from Hungary and half from abroad.

The two main topics of the next conference are:

1. Studies on chemical bonding and configuration
2. Information on polycrystalline materials gained by diffraction methods.

For further information write to:

The Secretary
8th Hungarian Diffraction Conference
c/o R. Eötvös Physical Society
H-1368 BUDAPEST, PB 240
Hungary

NORDIC SOCIETY FOR CLAY RESEARCH

The spring meeting was held in cooperation with the Division for Quaternary Geology at the University of Uppsala on March 13-14, 1975. The meeting was arranged as a symposium with the theme "Clay". Presidents were professors Ivan Th Rosenqvist, Norway, and Lars König Königsson, Uppsala.

There were 16 contributions covering a wide range of subjects. An introductory lecture was given on clay and geotechnique by Sven Erik Lundin followed by clay mineralization of pre-Cambrian rocks from the aspect of geological mapping (Tom Lundgren) and geotechnical problems (Rune Lundström).

There were further contributions connected to the use of seismic methods. An old slide from the 18th century was reconstructed by Åke Hillefors. Lars Hillert, Gustafsbergs factory, gave a survey of the use of clays in the manufacture of porcelain.

The following day dealt primarily with studies of moraines and diffusion of salts in clay sediments with contributions by Ivan Th Rosenqvist, J. Moum, K. P. Fisher and L. K. Königsson. Lambert Wiklander and Bengt Collini gave contributions to the discussion. J. Sippola presented a study of Finnish clays and Hrefna Kristmansdóttir described mineral studies in connection with drillings in the hot zone in Iceland. Ann Marie Brusewitz showed a vermiculite of unusual extent in the north of Sweden. Fingal Karlsson presented a preparation technique to preserve the surface structure of profiles and Erk and Lore Burton reported on clay mineral analysis by dilatometric methods.

The meeting was attended by over 50 people.

"Newsletter 1" from the Nordic Society has appeared. It gives a survey of the activities in the Nordic countries and of the contributions held at the meetings since the start in May 1973.

The First Circular announcing the Third Meeting of the European Clay Groups in Oslo, Norway, June 2-4, 1977, which is being hosted by the Nordic Society for Clay Research, was sent out in the autumn of 1975.

The autumn meeting of the Nordic Society for Clay Research was held on Nov. 20, 1975 with the following program:

Prof. German Müller, Heidelberg: "Recent lake sediments based on the examination of more than 100 lakes of the world".

Dr. Knut Björklykke, Oslo University, Blindern: "Sediment-petrographic and clay mineral studies on the Norwegian continental shelf".

Ann Marie Brusewitz introduced the Handbook on Phyllosilicates by Jacques Thorez.

Ivan Th Rosenqvist reported on the Clay Conference in Mexico City.

A new treasurer was elected, Mr. Dag Fredriksson, Geological Survey of Sweden, S-104 05 Stockholm 50.

--Ann Marie Brusewitz

FIFTH INTERNATIONAL CONFERENCE ON THERMAL ANALYSIS

The Fifth ICTA Conference will be held on August 1-6, 1977 at Kyoto, Japan, under the joint auspices of the Society of Calorimetry and Thermal Analysis of Japan, the Science Council of Japan, and the Japan Society for Promotion of Science. The Chairman of the Organizing Committee of this conference is Prof. Syūzō Seki, Osaka University.

In addition to the usual sections of the scientific program, the Organizing Committee has added a new section of Analytical Calorimetry.

The registration fee is estimated as follows:

\$100 for ICTA members
\$110 for members of affiliated groups
\$115 for non members
\$ 25 for accompanying persons

Package tours will be arranged from Europe by Barry-Martin Travel Ltd., 324 Regent Street, London W1, England, and from the USA by Dr. C. B. Murphy, Xerox Corporation, Rochester, New York.

The first circular was sent out in the autumn of 1975. The splendid organization by the host societies of Japan, the efficient activity of the ICTA Council under its President, Professor Hirocaro Kambe, assures the success of this conference.

--Anna Langier-Kuźniarowa
Geological Institute
Warszawa, Poland

NEW AND FORTHCOMING BOOKS

"Compaction of Argillaceous Sediments" by Herman H. Rieke II, School of Mines, West Virginia Univ., Morgantown, and George V. Chilingar, Petroleum Engineering Dept., Univ. of Southern California, Los Angeles, Calif., Elsevier Sci. Publ. Co., Amsterdam, The Netherlands, 1974, 450 pages. This is an advanced text designed for teachers, researchers, industrial scientists and students who are engaged in careful and detailed studies of fine-grained sediments, and in the processes, effects and results of compaction of clays, silts and related fine-grained sediments, including the study of overpressured formations. The authors have synthesized data from hundreds of sources, and added much data accrued from their own research work in this field. The resulting book should be of great interest to geologists and engineers who are investigating the results of compaction of argillaceous sediments, especially because shales and related sedimentary rocks are wide-spread on the surface of the earth, and the various oil shales are great storehouses of kerogen which one day will have to be exploited.

"Atlas of Infrared Spectroscopy of Clay Minerals and their Admixtures", by H. W. van der Marel, Soil Mechanics Laboratory, Delft, The Netherlands, and Hans Beutelspacher, Institute of Soil Biochemistry, Braunschweig-Volkenrode, Germany, Elsevier Sci. Publ. Co., Amsterdam and New York, 1976, 404 pages. This atlas comprises an up-to-date review of research in infrared spectroscopy of clay minerals and their admixtures. The material presented is based on a study of samples from many countries, classical localities and particular sediments. About 1500 spectra including spectra from soil organic matter from a total of 4000 samples have been selected. Contents: Introduction I. Basic Considerations about Electromagnetic Radiation and Molecule Vibrations. II. Instrumental. III. Preparation of the Sample. IV. Assignment of IR Bands. Correlations. V. Quantitative Analysis. VI. Clays and Related Minerals. VII. Admixtures. VIII. Amorphous Admixtures. IX. Miscellany. X. Organic Matter. XI. Inorganic - Organic Complexes. XII. Concluding Remarks. Acknowledgment, Appendix.

"Practical Identification of Clay Minerals by X-ray Diffraction - A Flow Sheet" by J. Thorez, Mineralogical Institute, University of Liege, Belgium, G. Lelotte, Editor, Rue Pisseroule, 109, B-4820 Dison, Belgium. This flow sheet is intended for undergraduate and graduate students and can be used for general and introductory teaching in clay mineralogy. It provides a simple, speedy and selective access to the identification of clay minerals and mixed layers by X-ray diffraction analysis of oriented aggregates. It emphasizes within a synthetic form the characters of the main varieties of clay minerals on the basis of their behavior upon classical identification tests (glycolation, clycerolation, cation saturations, heating). It focuses on the characteristics of the basal (001) reflection; the identification keys combine a simple mnemotechnical code and a colored chart, allowing a quick recognition and differentiation between clay mineral species or groups. The Flow Sheet also provides lists of basal spacings for different mineral varieties of phyllosilicates and clay minerals and a general glossary. The book contains 100 pages and the price is 590 BF.

"Clay Minerals: Resulting Effects and Comparison of Methods of Preparation" by J. Thorez, Mineralogical Institute, University of Liege, Belgium. In Preparation--to be issued at the end of 1976. In addition to the Laboratory Handbook "Phyllosilicates and Clay Minerals", this illustrated book focuses on the resulting effect of various (nearly twenty) procedures from the literature relative to the extraction and preparation of clay minerals prior to their X-ray diffraction analysis. The results are presented and compared following the colored charts and codification adopted in the first published Laboratory Handbook.

"Minerals in Soil Environments" edited by J. B. Dixon, Dept. of Soil and Crop Sciences, Texas A & M University, College Station, Texas 77843, preparation and publication sponsored by the Soil Science Society of America, Madison, Wis. The manuscripts are in the hands of the publisher and publication is expected in the autumn of 1976. The book has been designed to meet the needs for a graduate text for courses in soil mineralogy, clay mineralogy for earth science students and engineers, and soil chemistry with an emphasis on soil mineralogy and for a reference for teachers and researchers in soil chemistry, general soil science, civil engineering, geology, and sedimentology.

"Soil Components--Volume II- Inorganic Components" edited by J. E. Giesecking, Dept. of Agronomy, Univ. of Illinois, Urbana, Ill. Springer-Verlag, New York, 1975. This volume contains chapters on many of the clay minerals that are common constituents of soils; many of the chapters have been contributed by international authorities and represent a fairly current assessment of the understanding of the structure and properties of these minerals.

CLAY JOURNALS

European "Clay Minerals" Journal

Following agreement between the Clay Mineral Groups and Societies in Belgium, France, Spain, Italy, W. Germany, the Nordic countries, and Great Britain, a quarterly journal will be issued in March 1976 under their auspices to serve as an official vehicle for publication of scientific papers. It will be formed in the first place as an extension of the existing "Clay Minerals" publication, retaining the name to provide continuity with previous issues of this journal but appropriately sub-titled to indicate its new role. It will be managed by the Mineralogical Society of Great Britain through its constituent Clay Minerals Group and by the appointment of regional editors and an advisory board to represent interests of the various Groups.

Members will receive copies through their respective Groups at substantial discount but other subscribers are asked to submit orders to Blackwell Scientific Publications Ltd., Osney Mead, Oxford OX2 0EL, England. The annual subscription will be 18 pounds or \$54. Publication of papers may be in any one of the official languages English, French, German and Spanish but it is expected that most papers will be in English. Abstracts will be published in all four languages.

Offers of contributions (which may be accepted from non-members as well as members of the Groups) should be made as soon as possible. Papers should be accompanied by an abstract of not more than 150 words (in English also, if written in another language). Their publication entitles the authors to 25 free off-prints each (within a maximum of 50 per paper). Short communications and notes of not more than 1000 words will also be accepted for publication. These do not require an abstract and will not attract free off-prints. Review articles, which are usually invited or commissioned, will also be published occasionally.

Authors resident in Belgium, France, Spain, or Italy should send their scripts to:
Prof. G. Millot, Institut de Geologie, 1 Rue Blessig, 67084 Strasbourg, France.

Authors resident in the Nordic countries and Germany should send their scripts to:

Prof. K. Jasmund, Mineralogisch-petrographisches, Institut der Universität Köln, Zulpicher Strasse 49, Köln, W. Germany.

Authors resident in the United Kingdom or any country not covered above should send their scripts to:

Dr. J. L. M. Lambert, Institute of Geological Sciences, Exhibition Road, London SW7 2DE, England.

Clay Science

The Clay Society of Japan publishes its own Clay Journal called CLAY SCIENCE. It contains scientific articles covering all fields of clay science and is written exclusively in English. It will be published once or twice a year and six numbers will constitute a volume. It is now in its 5th volume. The editor is Dr. K. Wada, Faculty of Agriculture, Kyushu University, Fukuoka 812, Japan. Copies and back numbers are obtainable from the Japan Publications Trading Co., Ltd., P.O. Box 5030, Tokyo International, Tokyo, Japan.

NEWS OF MEMBERS

Dr. S. W. Bailey, Dept. of Geology, University of Wisconsin, Madison, Wisconsin, President of AIPEA, was named Distinguished Member of the Clay Minerals Society during the joint meeting of AIPEA and the Clay Minerals Society in Mexico City, July 16-23, 1975. Dr. Bailey has received many honors and awards. He is a fellow of the Geological Society of America, a fellow of the Mineralogical Society of America, was a council member of the MSA from 1970-72, Vice President in 1972-73, and President of the Mineralogical Society in 1973-74. He was an Associate Editor of the Journal for Sedimentary Petrology and is a member of SEPM. He was Editor of the Clay Minerals Society publication, Clays and Clay Minerals from 1964 to 1969. He was Vice President of the Clay Minerals Society in 1970-71 and President 1971-72. At present he is editor of the AIPEA proceedings volume which was published in February, 1976, with great dispatch and efficiency. He is chairman of the Joint Nomenclature Committee for the International Minerals Association and the International Union of Crystallography. Dr. Bailey's renown is in the field of X-ray crystallography and he has specialized in the structure and the layer silicates.

Prof. J. J. Fripiat, Director, C.N.R.S. Centre de Recherche sur les Solides a Organization Cristalline Imperfaite, Orleans, France, was named Distinguished Member of the Clay Minerals Society during the joint meeting of AIPEA and the Clay Minerals Society in Mexico City, July 16-23, 1975. Prof. Fripiat served as President of AIPEA for the 1975 International Clay Conference. Prof. Fripiat's contributions have been major ones in many areas related to the structure and surface chemistry of clay minerals and synthetic aluminosilicates. The leadership given by Prof. Fripiat led to the growth and development of the Laboratoire de Physico-Chimie Minérale as the leading laboratory of surface chemistry of the silicate minerals. Prof. Fripiat was elected to membership in the Royal Academy of Belgium in 1968. In 1967 he received the Franqui award, which is the highest Belgian scientific honor and is awarded every 3 years by an independent jury of eminent scientists outside Belgium. He is an Honorary Counselor of the Council for Scientific Research in Spain. In 1973 he was elected "National Lecturer" by the U. S. Catalysis Society and was invited to lecture to nine of the major centers for catalysis research in the USA.

Prof. Carl W. Correns, Univ. of Göttingen, W. Germany, will be honored by the Geological Society of America during the November 1976 meeting by being named as Roebling Medalist in recognition of his many contributions to the synthesis and weathering of clay minerals in sediments.

Dr. George V. Chilingar, Professor of Petroleum Engineering, has been named the first holder of the H.I.M. Shahanshah Aryamehr Pahlavi Chair in Petroleum Engineering at USC, Los Angeles. The endowed chair (professorship) named for the Shah of Iran was established in Sept. 1974 through a grant of \$1 million to USC from the Shah. A major objective of the chair is to serve as the focal point of a program to train Iranian petroleum engineers and further the exchange of technology between Iran and the United States. Holders of the chair will be selected on a rotating basis, and emphasis will be on carbonate rocks, reservoir engineering, secondary recovery, and other areas of importance to petroleum activities in Iran. Dr. Chilingar's areas of specialization are carbonate reservoirs, clays, compaction of sediments, subsidence, and fluid flow through porous media.

Dear AIPEA Member

Dr. A. W. Fordham
Division of Soils, CSIRO
Private Bag No. 1
P.O. Glen Osmond, South Australia 5064

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

Dr. J. B. Dixon
Treasurer AIPEA
Dept. of Soil and Crop Sciences
Texas A & M University
College Station, Texas 77843

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