

Minutes
International Ceramic Federation Meeting
Wednesday, April 25, 1990
11:00 AM - 12:43 PM, Convention Center
Dallas, Texas

Professor Metselaar, serving as Chairman of the meeting, welcomed the assembly of delegates (attached is a list of attendees). His remarks referred to the growing activities in advanced ceramics which is leading to the numbers of conferences, duplications, and unwanted overlaps. On the other hand, rapid developments ask for more intensive contacts between scientists and technologists in different countries throughout the world. These conflicting realities have led to discussions between ceramic societies aiming at a better exchange of information and closer collaboration. Professor Metselaar indicated that this was the driving force which has led to the formation not only of the European Ceramic Society but now the International Ceramic Federation. He also indicated that there were many useful purposes the ICF could serve. Dr. Robert Eagan, newly installed President of the American Ceramic Society, also indicated the usefulness of the ICF and encouraged its efforts on behalf of the international community. He also indicated a continuing support effort on behalf of the American Ceramic Society for the ICF.

The minutes of the June 22, 1989 of the ICF held in Maastricht, Netherlands, upon motion by Mr. Lowe and seconded by Mr. Buxton, were approved unanimously.

Report of Nominating Committee

The Nominating Committee, chaired by Dr. Hans Hausner with committee members T. S. Yen, Asia; W. H. Payne, North America; J. C . Buxton, South

America; S. Hart, Africa; B. Ben-Nissan, Australia; Y. D. Tretyakov, USSR, gave their report to the assembly. The Nominating Committee proposed the following slate of officers for the year 1990-1991 (one year term):

Malcolm G. McLaren	President
Rudi Metselaar	President-Elect
Hans Hausner	Vice-President
John C. Lowe	Vice-President - Finance
Richard Bowman	Secretary
W. Paul Holbrook	Treasurer

Chairman Metselaar then asked for additional nominations from the floor.

Being none, the slate was unanimously elected.

Report of Rules Committee

In the absence of Dr. Gail Smith, Chair of the Committee, Dr. William Prindle reported for the committee. Other committee members were Dr. R. J. Brooks and Dr. Daniel Broussaud. Chairman Metselaar asked for discussion. There being none, Mr. Holbrook moved and Mr. Ruiz seconded, the rules as suggested by the Rules Committee were unanimously accepted.

Items for Consideration of Work by the ICF

Chairman Metselaar opened the discussions for items that might be considered as tasks of the ICF. As the discussions evolved, the following items became obvious as ICF activities.

- A) An international calendar of meetings so that conflicts between individual societies and meetings could be avoided. This should be projected as far as possible so that planning could be best served by the societies.
- B) A roster of international societies in ceramics with officers and their predicted change of dates in their offices.

- C) Professor Hausner offered to chair a committee for data acquisition of the societies with their major research laboratories and their thrusts. He will be seeking information from all countries so that a tabulation of pertinent research can be accumulated.
- D) It was suggested that two categories of societies be followed by meeting dates. Those are ceramic societies, category 1, and category 2, those who keep a purview on ceramics. In this role Dr. Niesz suggested an effective position should be the endorsement of meetings in order to control ceramics as opposed to letting other societies dictate the direction of ceramic meetings.

Dr. Jeri Gotz told of the progress of the Eastern Block nations and, after discussion and better understanding of the thrust of the ICF, he felt that most of these Eastern Block societies would join the European Ceramic Society, consequently becoming members of the ICF. The potential new members would be Bulgaria, Poland, Eastern Germany, Czechoslovakia, and Romania. He will have more to report after the ceramic meeting to be held in September in Prague.

It was noted that the Ceramic Society of Japan will hold its 100th anniversary in October of 1991, and it was indicated that there should be strong participation by the ICF at that celebration. More can be decided about this at the next Executive Committee meeting or annual meeting of the ICF.

A brief discussion was held relative to the financial terms and commitment to the ICF. It was resolved that at present the ICF would

continue as it was initiated. That is, the ICF would have the support of the American Ceramic Society and the individual countries hosting the meetings.

It was decided that the next Executive Committee meeting would be held in Perth, Australia at their AUSTCERAM 90 meeting. The Western Australian government has agreed to a stipend for those who are participating in this meeting. This was discussed by the group but agreed that this was not to be a continuing practice and that, if this was to establish precedent, that none of us would accept the monies provided by the Western Australian government.

Secretary Bowman is charged with the responsibility of developing the agenda for the Executive Committee meeting and has asked for suggestions from the entire ICF group as well as the Executive Committee. It is anticipated that nine (9) countries will be represented at the Australian meeting.

There being no further business, Mr. Holbrook moved adjournment at 12:43 PM.

Respectfully submitted,

Malcolm G McLaren

Malcolm G. McLaren
June 12, 1990

Attachments

1. Report of Nominating Committee
2. Report of Rules Committee
3. List of Attendees

ATTENDEES
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April 25, 1990

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PRESS RELEASE

Establishment of the International Ceramic Federation

The growing activities in advanced ceramics lead to increasing numbers of conferences and sometimes duplications and unwanted overlap. On the other hand, the rapid developments ask for more intensive contacts between scientists and technologists in different countries throughout the world. These sometimes conflicting realities have led to discussions between ceramic societies aiming at a better exchange of information and closer collaboration.

About a year ago initiatives were taken to achieve a formal cooperation in a federation of ceramic societies. Today, in Dallas, Texas, delegates representing 21 countries have signed the "Objectives and Constitution of the International Ceramic Federation" and adopted operating by-laws. This Federation is a voluntary, non-governmental, not for profit association of organizations, each representing the ceramic community of the member countries. The purposes of the Federation are to promote and stimulate understanding and cooperation between persons and societies from different countries for the exchange of information on the art, science and technology of ceramics by:

- Serving as an international center for the exchange of materials.
- Promoting an understanding of ceramic materials, including their application to components and systems, among the user community.
- Maintaining a world calendar of meetings on ceramics and providing a central clearinghouse for coordination of international meeting on ceramics.
- Preparing and issuing reports and surveys having an international character.
- Improving and facilitating communication among ceramic societies, including an exchange of a list of officers of national and regional societies.
- Preparing a list of research institutes and research programs on a country by country basis that pertains directly to ceramic materials and process.

Each country can be represented by one society or research institution. The American Ceramic Society will act as the secretariat in the initial stage and will take financial responsibility for the Federation. Also at the Dallas meeting, the following slate of officers and executive committee members of the ICF were duly elected to serve for the next year.

Officers:	Professor M. G. McLaren	President
	Professor R. Metselaar	President-Elect
	Professor H. Hausner	Vice President
	J. C. Lowe	Vice President - Finance
	Professor R. Bowman	Secretary
	W. P. Holbrook	Treasurer

PRESS RELEASE
INTERNATIONAL CERAMIC FEDERATION
PAGE 2

Additional Executive Committee members elected were:

Dr. B. Ben-Nissan	Australia
Dr. J. A. Buslaev	U.S.S.R.
J. C. Buxton	South America
Dr. S. Hart	Africa
Professor K. Inamuri	Japan
W. H. Payne	U.S.A.
Dr. D. S. Yan	Peoples Republic of China

The suggested activities of the ICF will commence immediately and an Executive Committee meeting will be held in Perth, Australia during the Australasian meeting "Austceram 90" August 28 - 31, 1990.

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Refractory Plant in Austria

The Rath organization, an Austrian refractories producer with its head office in Vienna, can look back on 100 years of company tradition as the oldest refractory producer in Austria. The current production programme includes not only high-quality fireclay bricks and refractory mortars, mixes and concretes, but also since the early 1980's a wide range of refractory ceramic fibres. The *Aug. Rath jun. AG* has now awarded *Lingl* the contract for the supply of a complete new chamotte works (from the press onwards) to be built at the traditional production sitze in Krummnussbaum.

The overall project comprises the machine plant on the wet and dry side, chamber dryer, continuous preheater and two shuttle kilns. The chamber dryer, which is fitted with setting frames, is prefabricated using special assembly elements and can be installed in a very short time. *Lingl's* system for internal heating takes care of the heat supply. Initially the green ware is warmed up gently and evenly in an atmosphere of extremely high humidity; after this stage the actual drying begins at a high temperature, making economical use of the waste hot air from the kilns. The air circulation is effected with the reliable rotating fans, all mechanical parts of which are located outside the drying chambers. By applying this technical system, the drying time can be reduced by 30...50 % of the previous rate, depending on the model.

Shuttle kilns were selected for the periodic firing operation. This shuttle kiln, representing the latest development of the *Lingl* company, is a completely prefabricated kiln in modular construction, several of which are operating successfully in the meantime. Ceramic fibre is used exclusively for the refractory lining; this not only allows very short firing cycles but also provides an extremely economical energy consumption because of its minimal storage heat. Since the ceramic fibre used in this project is manufactured by the Rath company, this will surely turn out to be an interesting reference plant. The same will apply for the kiln cars. For two different firing temperatures, a total of six different refractory linings have been chosen – all products made by Rath – including extremely lightweight designs.

Decor Transfers with UV-Technology

The Ceramic Colors and Special Products Division of *Degussa AG* (Germany) has acquired a worldwide patent licence and the accompanying rights from the Japanese *Toyobo* company for the **manufacture of decorative transfers** with UV-technology for ceramics, glass and enamel. This licence secures the unrestricted use of this technology by *Degussa* and its right to issue sub-licences to other manufacturers of transfers. The new process reduces the amount of solvents released into the atmosphere when such transfers are both manufactured and processed, and is therefore ecologically preferable.

Turkish Ceramic Association Founded

The first annual meeting of the *Ceramic Association* (Turkey), which was founded by scientists and artists of the ceramic industry in March 1990, was held in May 1990. The aim of the association is to develop science, design and technology used in the ceramic industry by way of new projects, supporting the existing projects and facilitating communication, information, know-how transfer and business relations. The head office of the association is in Istanbul, Turkey.

The board of directors is as follows: *Basri Sezer* (Chairman), *Yüskel Güner* (Deputy Chairman), *Can Apak*, *Prof. Dr. Erdinc Bakla*, *Doc. Dr. Serdar Özgen*, *Prof. Dr. Adnan Tekin*, and *Tolun Vural*.

Scientists and artists working in the ceramics industry can join this association whose aim is to bring the ceramics industry together.

Royal Doulton in the Air

A new 'first-time' airline customer for the *Royal Doulton* Hotel and Airline division, *Air New Zealand*, have placed an order worth over £300 000 for their first-class and business services. The order covers a full range of items which are decorated with a gold line and their Maori symbol logo in gold.

First-class will be using a full range of bone china pieces including various sizes of plates, teacups and saucers, sauce boats, salt and pepper sets and bowls. In addition the order includes a different style teacup and saucer for business class. *Air New Zealand* joins more than a dozen airlines around the world who now use *Royal Doulton* bone china on their 'in-flight' services. fbg

Establishment of the International Ceramic Federation

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About a year ago, initiatives were taken to achieve a formal cooperation in a federation of ceramic societies. At the ACeRS Convention 1990 in Dallas, Texas (USA), delegates representing 21 countries signed the "Objectives and Constitution of the International Ceramic Federation" and adopted operating by-laws. This federation is a voluntary, non-governmental, non-profit association of organizations, each representing the ceramic community of the member countries. The goals of the Federation are to promote and stimulate cooperation and understanding between persons and societies from different countries, and the exchange of information on the art, science, and technology of ceramics by:

- Serving as an international center for the exchange of materials
- Promoting an understanding of ceramic materials, including their application to components and systems, among the user community
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Each country will be represented by one society or research institution. The American Ceramic Society will act as the secretariat in the initial stage and will take financial responsibility for the Federation. Also at the Dallas meeting, the following slate of officers and executive committee members of the ICF were duly elected to serve for the next year: *Prof. M. G. McLaren* (President), *Prof. R. Metselaar* (President-Elect), *Prof. H. Hausner* (Vice President), *J. C. Lowe* (Vice President – Finance), *Prof. R. Bowman* (Secretary) and *W. P. Holbrook* (Treasurer).

Additional Executive Committee members elected were: *Dr. B. Ben-Nissan* (Australia), *Dr. J. A. Buslaev* (U.S.S.R.), *J. C. Buxton* (South America), *Dr. S. Hart* (Africa), *Prof. K. Inamuri* (Japan), *W. H. Payne* (U.S.A.) and *Dr. D. S. Yan* (Peoples' Republic of China).

The suggested activities of the ICF will commence immediately, and an Executive Committee meeting will be held in Perth, Australia during the Australasian meeting "Austceram '90" August

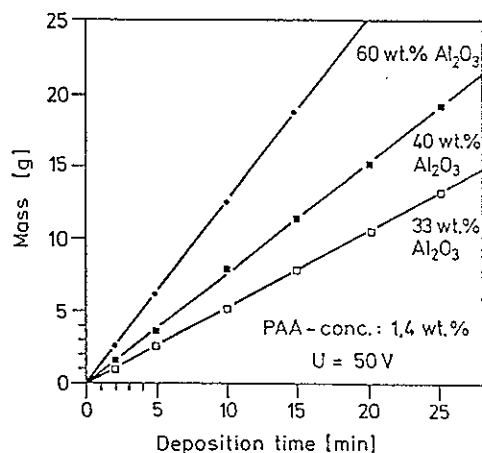


Fig. 7A Deposited mass as function of the deposition time for different alumina contents.

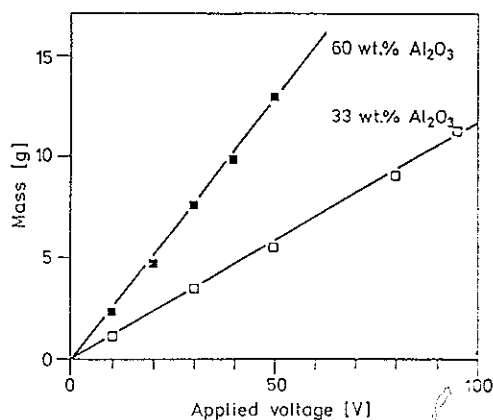


Fig. 7B Deposited mass as a function of the applied voltage for different alumina concentrations for a PAA concentration of 1.4 wt% and a deposition time of 10 min.

directly from the suspension by sedimentation or centrifugation without additional processing steps. A joint effort between the Fraunhofer-Institut für Silicatiforschung and Asea Brown Boveri is optimizing this technique for improving homogeneity and reliability of ceramic compacts.

Electrophoresis is based on the movement of charged particles in a liquid in the presence of an electric field. Non-aqueous suspensions of alumina were used to avoid the formation of gas bubbles by electrolysis of water. The surface charge of the alumina particles in the suspension is obtained by polyacrylic acid (PAA), which also serves as a binder for the deposited particles. For economical processing, a stable suspension and high deposition rates are required. To obtain these objectives, the solids content, the zeta-potential, the PAA concentration, the permittivity, and the viscosity were optimized. The zeta-potential was found very sensitive to both the PAA concentration and the solids content. Permittivity decreases with an increase in alumina content whereas viscosity increases with an increase in alumina content. With increasing alumina content, the deposited mass for constant time or voltage increases, as shown in figures 7A and 7B.

The microstructure of deposited green plates is homogeneous except for a thin porous layer (200 μm) on the side facing the electrode. After sintering, this porous layer is still present and results in a reduction in fracture strength compared with the denser side. Current efforts involve eliminating this porous layer by further optimization of the deposition process.

Source: Helmut Schmidt, Fraunhofer-Institut für Silicatiforschung, Neunerplatz 2, D-8700 Würzburg, FRG. Phone: (49) 931419099-0. Fax: (49) 9314190980.

For additional information on some of the technology described in the previous pages, see published proceedings of the American Ceramic Society. A list is available from headquarters at 757 Brookside Plaza Drive, Westerville, OH 43081.

Policy Report

■ **The Changing International Scene In Ceramics** Contributed by Professor Malcolm G. McLaren, Director, Institute for Engineered Materials, Rutgers University, and Chairman, International Ceramic Society Coordinating Committee, The American Ceramic Society.

The past 18 months have seen the creation of two professional international scientific organizations, a development that would have been thought impossible five years ago. In the space of one year after an initial meeting in Brussels, the professional ceramic societies of Europe joined together to form the European Ceramic Society (ECerS). This was accomplished at the Science of Ceramics meeting held at Canterbury, England, in September 1987. The goals and aims of this new organization were to form an independent European professional ceramic society that would assume a significant role in the scientific and industrial world of ceramics. Its objectives would be to provide a long-term planning function (up to five years) on themes and locations of conferences and publications; to coordinate all conferences in the field of ceramics within the European partners and also with affiliated societies in the USA and Japan; to establish at least a biennial European meeting that would incorporate the Science of Ceramics meetings into the program; to cooperate with the European Commission in the field of ceramics education; and to assist in coordinating and promoting the interests of the ceramic community in establishing links with other relevant materials organizations.

The newly formed European Ceramic Society has already held a successful first conference that included the

(continued)

Industry News

vanced ceramics. Funding of \$635 000 has been earmarked for CUIACAC.

In the interest of productivity and competitiveness, CUIACAC plans to nurture increased R&D of advanced ceramics and provide a focus for their applications. Seminars, short courses, advisory groups, newsletters and workshops will be made available. A priority goal is the establishment of industry-supported consortia.

International Ceramic Federation Elects Officers

The International Ceramic Federation was formalized June 22, 1989 (cf. page 1382 of the August 1989 *Ceramic Bulletin*). Delegates from 21 countries added their signatures to the Objectives and Constitution of the International Ceramic Federation and adopted operating by-laws in Dallas, TX, April 27.

Officers were duly elected to serve for the current term. They are: president, Malcolm G. McLaren, American Ceramic Society; president-elect, R. Metselaar, European Ceramic Society; vice president Hans Hausner, Institut für Nicht-metallische Werkstoffe; vice president-fi-

nance, J. C. Lowe, Canadian Ceramic Society; secretary, Richard G. Bowman, Commonwealth Scientific & Industrial Research Organization; and treasurer, W. Paul Holbrook, American Ceramic Society.

Additional members elected to serve on the Executive Committee are: B. Ben-Nissan, Australia; Y. A. Buslaev, Russia; J. C. Buxton, South America; S. Hart, Africa; K. Inamori, Japan; W. H. Payne, United States; and D. S. Yan, China. A meeting of the Executive Committee has been scheduled to be held in Perth, Australia, during Austceram 90, August 28-31.

Further information can be requested from the Secretariat for the International Ceramic Federation, c/o The American Ceramic Society, Inc., 757 Brookside Plaza Dr., Westerville, OH 43081-6136.

Photomicrography Competition

Polaroid Corp. sponsors the International Instant Photomicrography Competition, which is open to all light and electron micrographers using Polaroid instant films. The competition offers a total of 32 cash

prizes worth \$17 000—including a grand prize of \$5 000.

Entry forms and competition rules can be obtained from Polaroid International Instant Photomicrography Competition, Polaroid Corp., 575 Technology Square-9P, Cambridge, MA 02139; telephone 800/225-1618. Entries must be post-marked by June 30.

HIP Study Gains Momentum

According to an ongoing study by Gorham Advanced Materials Institute, the use of hot isostatic pressing (HIP) is continuing to grow. The value of HIP-processed materials, estimated to be \$1.0 billion in 1983, grew to approximately \$3.0 billion in 1988, with \$6.0 billion possible by 1993. Some of the commercial materials processed by HIP include high-speed steel, superalloys, titanium, silicon nitride, alumina, soft ferrites, cemented carbides and carbon-carbon composites. HIP units in use during the same five-year period increased from 350 in 1983 to 800 in 1988.

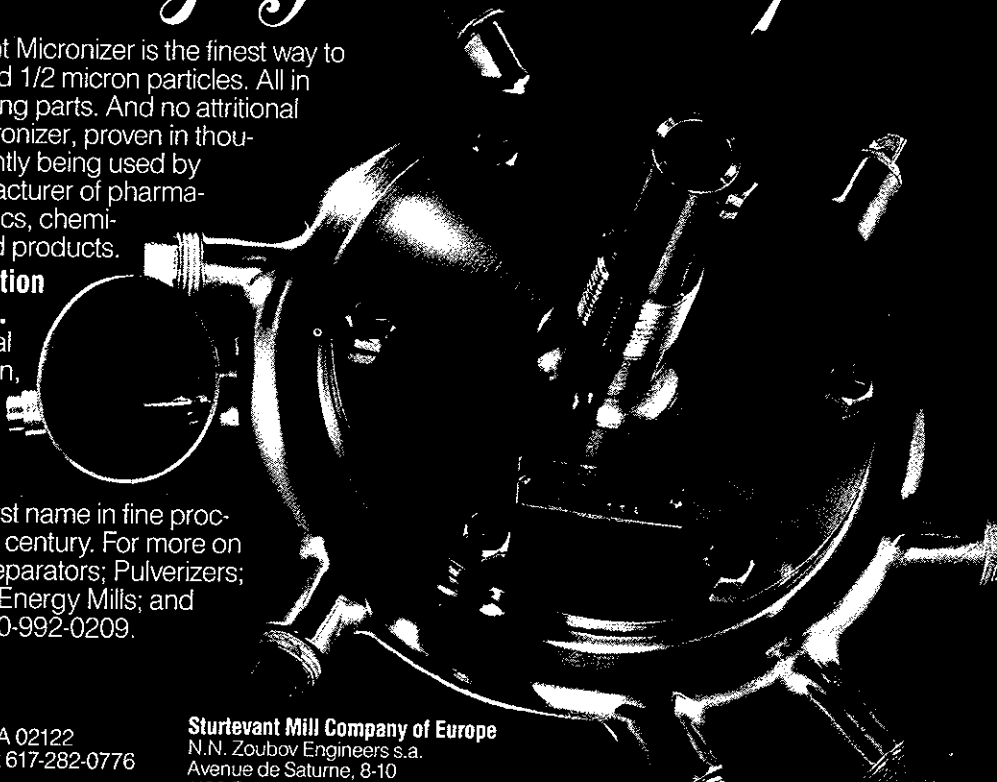
The study, titled "Markets for Hot Isostatically Pressed Advanced Materials in

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INTERNATIONAL CERAMIC FEDERATION TO MEET IN PERTH

The Executive Committee of the International Ceramic Federation (ICF) will meet in Perth during AUSTCERAM 90. The ICF is a voluntary, non-governmental, not-for-profit association of organizations representing the ceramic communities of each member country. The delegates will directly represent the American, European, Japanese, Soviet Union, Chinese, South African and Australasian Ceramic Societies, but acting on behalf of other kindred bodies.

The active growth of interest in advanced ceramics has led to an increasing number of conferences and sometimes duplications and undesirable overlaps. On the other hand, the rapid developments call for more intensive contacts between scientists and technologists in different countries throughout the world. These sometimes conflicting realities led to discussions among ceramic societies aimed at improving the exchange of information and achieving closer collaboration.

The Federation was proposed initially at AUSTCERAM 88 in Sydney in August 1988. Representatives of 10 Societies signed the 'Objectives and Constitution of The International Ceramic Federation' in the Netherlands in June 1989. The Executive Committee was elected at a meeting in the USA in April 1990.

The Federation's objectives are the promotion and stimulation of understanding and cooperation between persons and Societies from different countries for the exchange of information on the art, science and technology of ceramics. To achieve these goals the Federation will undertake to:

- serve as an international centre for the exchange of information;
- promote an understanding of ceramic materials, including their application to components and systems, among the user community;
- promote, to the public, an understanding of the use of ceramic materials and their importance to society;
- maintain a world calendar of meetings on ceramics and providing a central clearinghouse for coordination of international meetings on ceramics;
- prepare and issue reports and surveys having an international character; and
- improve and facilitate communication among national and regional ceramic societies.

The driving force for the creation of the Federation was an awareness of the increasing intrusion by other scientific societies into the field of ceramics. This has been accompanied by a proliferation of meetings and exhibitions sponsored by these societies. The motivation for the extension of nonceramic societies into ceramics appears to be that this field is on the rise and thus saleable as well as scientifically interesting. There is also the perception that its future will be very profitable. At present, these societies are profitably exploiting topical meetings, short courses and exhibitions, but disregarding the traditional ceramic sector which generates a significantly larger market. As a consequence, the international ceramic community was motivated to join forces to work cooperatively to develop meetings and programs that meet its interests and requirements.

The market for advanced ceramics, which is composed of many niche businesses, is potentially very viable and profitable. Advanced ceramics is an evolutionary field that will evolve but move more slowly than initially anticipated. In most cases, in order to be successful, 'networking' will be essential to develop proper development of material, product or market. Many examples of 'networking' have occurred in recent years with some of them taking the form of corporate acquisition, vertical integration or intercorporate agreements. Therefore, ample opportunity exists for a wide range of companies and countries to participate in promoting the science and engineering of ceramics. One example of international cooperation is the Australasian and Canadian Ceramic Societies will be sending a joint delegation to the USSR in October, in a program of reciprocal exchanges.

ICF President Malcolm McLaren, a Past President of the American Ceramic Society and Director of the Institute for Engineered Materials at Rutgers University, and President Elect Rudi Metselaar, immediate Past President of the European Ceramic Society and Professor of Solid State Chemistry and Material Science at Eindhoven University of Technology, will be attending the meeting.

INTERNATIONAL CERAMIC FEDERATION

Notice of Meeting

The first meeting of the Executive Committee will be held at 7.30 a.m., over breakfast, in the Small Boardroom of the Burswood Island Hotel, on Monday, 27 August, 1990.

Agenda

1. Apologies.
2. Minutes of the meeting held in Dallas on 25 April, 1990.
3. Matters arising from the minutes.
4. Progress on work items:
 - A) International calendar of meetings;
 - B) Roster of international ceramic societies;
 - C) Ceramic research institutes;
 - D) Endorsement of meetings - 8th Cimtec World Ceramics Congress.
5. Committee operational procedures.
6. Suggestions for new projects:
 - E) Nomenclature;
 - F) Compendium of ceramic related publications;
 - G) Education, workshops;
 - H) Standardisation;
7. International Academy of Ceramics.
8. Membership drive and advertisement of ICF objectives.
9. International Ceramic Federation logo and stationery.

Note: The Secretary will be submitting a proposal - any other proposals are welcome.
10. Financial status.
11. Any other business.
12. Date and venue of next meeting.



Facsimile Transmittal Cover Sheet

Date: 7-18-90
Name: Richard Bowman
Fax No.: 08-558-28192
From: Paul Holbrook *Paul*
Copy: R. J. Eagan
ICF Executive Committee
Fax No.: (614) 899-6109

This transmittal consists of 1 pages (including cover sheet).

Dear Richard:

I am very sorry but I will not be able to attend the ICF Executive Committee Meeting in Perth, Australia in August 1990. I thoroughly enjoyed the trip to Sydney and vicinity in 1988. I would like very much to see the western side of Australia; however, The American Ceramic Society is in the process of putting together a Strategic Plan for the Society with outside consultants and my time schedule will not allow me to attend the ICF meeting.

I would like to comment on some items on the agenda, which appears to be a good one.

Item 6G: I think this is an outstanding subject that the ACerS would be interested in getting involved with other societies to provide more continuing education type workshops.

Item 8: I will offer a free 1-page ad for ICF for the membership drive and their objectives if this offer is acceptable by ICF.

Item 9: I feel very strongly that ICF should have their own logo and stationery and I can get some proposals from the company who did the logo for the ACerS; however, this could possibly cost \$2,000 or \$3,000.

Item 10: I think our financial status is good since we don't have any revenue or expenses. I will submit a line item in the ACerS 1991 Budget proposal for resource support, probably in the neighborhood of \$2,000. If the committee has any suggestions, please let me know as soon as possible.

Item 12: I would propose that we have the next meeting at the ACerS Annual Meeting in Cincinnati the week of April 28, 1991.

Again, I am very sorry that I will be unable to attend but I am sure you will have an exciting and successful meeting.

Best regards.
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INSTITUTE FOR ENGINEERED MATERIALS

TO: Executive Committee and Officers
International Ceramic Federation

FROM: Malcolm G. McLaren, President

DATE: September 28, 1990

Attached you will find a copy of the minutes of the Executive Committee meeting held on Monday, 27 August and Wednesday, 29 August 1990. As you can see from the minutes there are many work items that were dealt with and committees formed and chairmen assigned.

It was determined that a questionnaire would be prepared by Mr. Bowman and circulated to all professional ceramic societies on an international basis to establish an International Calendar of Meetings. Dr. Ben-Nissan has volunteered to collate the information and will chair this activity.

Professor Hausner will chair the committee on Ceramic Research Institutes. He circulated a draft questionnaire and asked that the completed questionnaires be returned to him.

After deliberation it was agreed that ICF members seeking endorsements for meetings should complete a questionnaire similar to that used by other professional societies. Based on the merit and content of the proposed meeting, ICF could lend its endorsement and thus in the future could help better participation with its endorsement.

The Executive Committee endorsed the recommendation of Professor McLaren that the ICF endorse future meetings of the CIMTEC World Ceramic Congress and that they should be the focus for ICF meetings. A more thorough discussion is available as submitted to the membership last August. Professor McLaren will be writing to Dr. Vincenzini indicating that the ICF has elected to support CIMTEC and asking for the details of any further negotiations that must occur.

Also as indicated in the minutes of the meeting, the Executive Committee of the ICF has endorsed the concept of the International Academy of Ceramics as a class of the ICF pending approval by the Board of Trustees of the IAC. Professor McLaren is contacting Dr. Vincenzini to determine the outcome of the Board's decision and to also work with Dr. Vincenzini on future requirements.

The two meetings held in Perth had a very full business agenda but all items were dealt with.

INTERNATIONAL CERAMIC FEDERATION

Minutes of Meetings, Monday, 27 August and Wednesday, 29 August 1990
Burswood Hotel, Perth, Western Australia

Chairman McLaren welcomed those present (attendance list attached).

1. Apologies had been received from all members of the Executive Committee who were not present or represented at the meeting.

2. The minutes of the meeting held in Dallas on 25 April, 1990, were accepted as being a true and accurate record of the meeting.

3. There were no matters arising from the minutes.

4. Progress on work items:

A) International calendar of meetings. It was agreed that a questionnaire (to be prepared by Mr Bowman) should be circulated to all Societies. Dr Ben-Nissan volunteered to collate the information and to cross check it with the Am Ceram Soc and other listings. Dr Ben-Nissan was nominated to chair this activity.

B) Roster of international ceramic societies. Due to the problems associated with the transfer of responsibilities with changes in office bearers, the chairperson of this activity will fulfil a critical role. It was suggested that a key word recoverable data base should be established.

C) Ceramic research institutes. It was agreed that Professor Hausner should chair this committee. His draft questionnaire (attached) was circulated for comment, which should be sent to him.

D) Endorsement of meetings. It was agreed that ICF members who sought endorsement for a meeting should complete a questionnaire similar to the IUPAC questionnaire (attached) kindly furnished by Professor Metselaar. Comments on the questionnaire should be sent to ?

Further to the information he had circulated to committee members, Professor McLaren reported on the 7th CIMTEC meeting and his proposal that the ICF should endorse future CIMTEC meetings, and that they should be a focus for ICF committees. The committee endorsed McLaren's initiatives, and requested that he undertake further consultations as he saw appropriate.

5. Committee operational procedures. It was decided that chairpersons should be appointed to manage the various work items and that they would be responsible for coordinating the activity and communicating progress to the Executive Committee.

6. Suggested new projects.

E) Nomenclature. It was agreed that there was a need for a 'dictionary' and that Professor Soga should chair this activity.

F) Compendium of ceramic related publications. It was suggested that a further questionnaire be prepared and circulated in order to obtain the necessary information.

G) Education, workshops. It was agreed that there should be stronger international collaboration in this area. In some cases there is no formal organisation which 'authorises or runs' a series of conferences, such as the Zirconia conferences. Mr Frahme was nominated as a suitable chairperson.

H) Standardisation. It was agreed that there was a definite need for this activity, and that Mr S. Schneider should fill the chair.

7. International Academy of Ceramics.

Further to the information he had circulated to committee members, Professor McLaren reported on the proposal that he had submitted to the Board of Trustees of the International Academy of Ceramics, on behalf of the ICF, and on subsequent discussions. Given that the Academy favours becoming a division or class of the Federation, it was recommended that Professor Kingery should chair a committee on the history of ceramics, and that this might be an Academy activity. Professor McLaren was asked to take appropriate action.

8. Membership drive and advertisement of ICF objectives.

It was agreed that there should be a membership drive and a number of societies offered complimentary space in their publications. Societies should be encouraged to sign the charter. It was agreed that in publicising the ICF, one should talk in terms of the number of countries represented, and the number of ceramists, in addition to the number of member societies.

9. ICF logo and stationery. The Secretary submitted some suggested artwork, together with an estimate of A\$10 000 for 5000 A\$ sheets bearing the four colour logo. Due to the diversity of the ceramic industry, no attempt had been made to depict recognisable ceramic objects with which all could associate. However, since the thermal processing of inorganic materials is a common factor, the submitted logo featured the letters ICF in red, yellow and white respectively, depicting the various stages of heat. The letters were outlined in black, to assist in photocopying, and contained within a black oval frame, the lower half being coloured green, and the upper half blue - representing a responsible attitude towards the environment (regeneration of mining sites and no pollution of air or water). These colours are the only ones used on national flags, and being bound within a ^{global} frame represent international unity.

It was decided that further prices should be obtained, and other possibilities be investigated.

10. Financial status. The Federation still has no funds, but has not been invoiced for any expenses. The American and Australasian Ceramic Societies have absorbed some costs, as have individual committee members and their employers.

11. Any other business. It was suggested that Professor Palmonari be invited to chair a working group on traditional ceramics.

Committee members thanked Dr Marshall, as a representative of the Western Australian Ministry of Economic Development, for their help in defraying the cost of attendance.

12. Date and venue of next meeting. To be held in Cincinnati in conjunction with the American Ceramic Society annual meeting, the exact details being left to the discretion of the Chairman. It is envisaged that the following meeting will be held in Japan in conjunction with the Ceramic Society of Japan centennial celebratory conference, 16 to 18 October 1991.

Richard Bowman
Secretary

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INTERNATIONAL CERAMIC FEDERATION

International Calendar of Meetings - a Questionnaire

BACKGROUND

At the Perth meeting of the International Ceramic Federation (ICF) in August 1990, it was determined that a questionnaire should be circulated to all the national Ceramic Societies. The purpose of this questionnaire is to compile sufficient information to circulate a comprehensive international calendar of meetings to all interested Societies. This will hopefully minimise the occurrence of conflicting Conference and Exhibitions, and assist organisers of meetings to secure maximum international publicity with minimal effort.

It would be appreciated if you could make a number of photocopies of the accompanying questionnaire, and if you would send a completed copy to:

Dr Ben-Nissan (Fax +61 2 211 4449)
Dept of Materials Science
University of Technology Sydney
P.O. Box 123
Broadway, NSW 2007
Australia

whenever you are planning to hold a meeting. Please note that the ICF is also preparing an 'Advance Information Questionnaire' for conference organisers who wish to apply for ICF sponsorship. It is anticipated that the latest permitted date for receipt of a completed 'Advance Information Questionnaire' will be twelve months in advance of the meeting. It is in your own interest to return the completed accompanying questionnaire at your earliest convenience together with any appropriate material. Please keep a photocopy for your own files.

Further details may be obtained from the ICF Secretary:

Richard Bowman
P.O. Box 56
Highett, VIC 3190
Australia
(Fax +61 3 553 2819; Phone +61 3 556 2211; Telex AA 33766).

INTERNATIONAL CERAMIC FEDERATION
International Calendar of Meetings Questionnaire

1. Title of meeting:

Main subject areas:

Meeting theme:

2. Proposed location (town and country):

Proposed dates:

3. Approximate number of scientific participants expected:

4. Meeting nature: [] International; [] Regional; [] National

5. Will ICF sponsorship of the meeting be sought?

6. Will there be an exhibition of materials, equipment or literature?

If yes, please indicate the exhibition area m^2 ;

and range of anticipated exhibits

7. Will there be any published proceedings of the meeting?

8. Name and address of contact for further information:

Fax:

Phone:

Telex:

9. Name of organizing body:

Name and address of President and Secretary

Date:

Signature:

Position: