

# Strategies and Agenda for ICCF14

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*Our experiences before and during ICCF14 may be of use to the organizers and attendees of future ICCF conferences.*

The ICCF series of conferences has been on a three-continent rotation. Hence, after Sochi, Russia, it was appropriate to hold ICCF14 in North America. We volunteered to organize it in Washington, D.C., a few minute's walk from the national capitol and close to the regional Metro system with two hopes in mind. One was to attract staff from the nearby offices of Senators and Congressmen. The other was to make it easy for program managers from U.S. government funding agencies and technical organizations to attend, especially those with responsibilities for science, energy and the environment. We also hoped that having the conference in the heart of the U.S. capitol would attract mainstream press coverage. None of these possibilities materialized at the desired level. However, the CBS TV show "60 Minutes" did videotape part of the conference. The limited attendance by government and press was due in part to the conference being scheduled in August, when many people are on vacation, and during a presidential election year. That had to be done because hotel room rates in August are almost half of what they are during other times of the year.

Regarding the agenda, conference organizers can be either reactive or proactive in their approach to obtaining papers for presentation. In the reactive mode, they form the agenda from the papers that have been offered in response to a Call for Papers. However, for most conferences, the organizers also invite presentations from important workers in the field that will be of broad interest to attendees. These invitations are honorific and they insure that the best work is highlighted. Our approach to ICCF14 included, but went beyond, simple arrangement of submitted papers into logical sessions and some invitations to particular scientists.

We felt that there were some topics within the field that needed up-to-date technical reviews for presentation at the conference. Hence, we commissioned a few reviews from key workers, in addition to inviting several luminaries in the field to give papers. The commissioned reviews were on:

1. The evidence for excess heat, the Fleischmann-Pons Effect (FPE);
2. Calorimeter design and performance for measurement of the excess power and energy in the FPE experiments;
3. Experiments using gas loading to produce excess heat;
4. Scattering of deuterons on deuterons within a metallic environment to assess the "screening" at energies below the coulomb barrier.

It is hoped that the commissioned papers will form the basis for several papers to be published in a mainstream review journal, such as the *Reviews of Modern Physics*.

The architecture of the agenda was chosen to meet certain objectives. One was to provide during the first two days of the

conference a broad overview of the field, with very important work on heat and materials being on the opening day. This was done to insure that people who could attend only one or two days of the conference would be able to get a sense of the breadth and quality of what has been done and found in the field. We learned that about 25% of the attendees were only able to attend the first two days and many indicated the structure of the agenda encouraged them to attend and participate. As one long-time attendee of the ICCFs, who is widely experienced in advanced scientific topics, commented: "This conference had much 'juice,' that is, information not available in the published literature or in standard format conferences or streaming video conferences." The introductory two days justified his staying for the entire week.

A second goal recognized that several people in the field, who have made major contributions to its development, are well past retirement age. It was felt that the chances to publicly honor such pioneers would be few. Learning of their latest work was also important. Hence, we scheduled two sessions on the second day, one to honor Professor Yoshiaki Arata from Osaka University in Japan and the second to honor Dr. Stanislaw Szpak from the SPAWAR Systems Center in San Diego. The session for Professor Arata began with Dr. Talbot Chubb's overview of Arata's work on cold fusion, and ended with a presentation by Professor Arata on his most recent and very provocative results. The session for Dr. Szpak, who could not attend, consisted of an overview of the work he and his colleagues have done and published since the inception of the field. It was presented by a few of his colleagues led by Dr. Frank Gordon. We hope that future ICCFs will also include sessions recognizing key pioneers in the field.

The second day also included sessions on very important topics—gas loading, particle measurements and challenges facing the field. In the evening, the annual public session of the International Society for Condensed Matter Nuclear Science (ISCMNS) was held. It was organized and chaired by William Collis, the founder and Chief Executive of the Society.

There are four classes of measurements done on FPE experiments—heat, nuclear ash, energetic particles and low energy phenomena. The measurements of nuclear reaction products has tended to fall into two main classes, namely the detection of light products, such as tritium and helium, and the measurement of elements of moderate or heavy mass across the periodic table. The second type of research goes under the banner of transmutations, and is of widespread interest and major importance in the field. Hence, the opening session on the third day was on transmutations. However, there was not enough time in that session to cover all the work in the sub-field. Therefore, Professor George Miley from the University of Illinois organized a workshop on transmutations during the

Friday afternoon immediately after the conference. Approximately 50 scientists attended, a measure of the interest in transmutations.

Most of the third day was designed to serve workers in the field, both technically and for recreation. There was a session during which leading workers from several countries presented histories of research on the FPE in their countries during the almost two decades since the inception of the field. Presentations were made on work in China, France, India, Italy, Japan and Russia. This session was a major step forward in a separate project to produce and publish country histories for activities and results in the field. Some already exist in either English or the language of the country. Translations to English are in progress now (early 2009), with the goal of publishing a matched set of books, one for each country, later this year. The history of U.S. work has been covered for the earlier years in various books and the UK history is generally limited to the efforts at Harwell, covered in the history of Harwell. U.S. and UK histories are being expanded, using recently available archives. For example, it has been discovered that several laboratories of a major U.S. corporation conducted FPE experiments. One laboratory did not even bother to look for excess heat, focusing exclusively on the conventional expectation that ionizing radiation and particles would be most easily detected. These results were published in a major U.S. physics journal, saying "nothing was observed." A sister laboratory did seek the heat signature, found it was present, but erratically. They realized that a major materials research effort would be required and consequently stopped their research, as energy was not a major product of this corporation. There was never a "corporate" position on the FPE experiments, yet certain prominent scientists from the corporation have for nearly 20 years consistently defended their public position that "there is no heat effect of interest in the deuterated palladium system."

The afternoon of the third day was devoted to the traditional conference outing. Most of the attendees participated in a visit to the Udvar-Hazy Center of the Smithsonian Air and Space Museum about an hour's drive from the conference hotel. The conference banquet was held after the tour on the third day. In addition to the meal and musical entertainment, the evening included the presentation of the Preparata Medal to Dr. Irving Dardik. William Collis prepared the medal on behalf of the ISCMNS and Dr. Michael McKubre described the work that led to selection of Dr. Dardik. Dr. Dardik's acceptance speech was a thoughtful and inspiring reminder about the rewards of curiosity and scientific investigation.

The fourth day of the conference included two sessions on theory, the topic in the field that had the most papers at the conference. There were also sessions on accelerated beam experimental results, on optical experiments and another partial session on materials. That day also included the last of three poster sessions, the other two being on the first and second days.

The conference concluded with a half day of presentations. Several significant experimental papers, which did not fit well in the earlier sessions, were given in the first session. That was followed by the concluding session. It included a conference summary, followed by two panel discussions. The first was on Experimental Design and the second on Realizing the Promise.

The feedback from attendees indicated that ICCF14 was a successful scientific conference. The 97 papers scheduled for

oral or poster presentation included some very important new results. The information given at the conference and to be published in the ICCF14 proceedings adds significantly to the large and increasingly-compelling evidence for the ability to trigger nuclear reactions giving millions of electron volts of energy with chemical energies on the scale of electron volts. This new and exciting scientific field is sufficient in itself. However, the possibility of clean and safe distributed nuclear power sources based on the FPE makes interest in the understanding, controlling and optimizing of lattice induced nuclear reactions even more urgent.

### Problems Related to Obtaining Foreign Visas

—IE Staff

Anyone who has ever applied for a visa knows that you must deal with not only your own country's rules, but more importantly those of the nations you intend to visit. Some may not be aware, but travel to the U.S. has been greatly affected since September 11, 2001; the U.S. tightened its borders after 9/11. This included reducing the number of visas granted to foreign travelers (or, in most cases, making the application process more difficult or longer). The organizers of ICCF14 learned a hard lesson about foreign travel, a lesson that they hope will aide future organizers in their planning process—that rules can change unexpectedly which will adversely affect your careful planning.

U.S. Embassies have had ongoing changes in their protocols over the past eight years. Last year was no exception. Unfortunately for the organizers and attendees of ICCF14, some administrative changes occurred with the Russian visa process after the ICCF14 instructions on visas were posted. These changes kept some Russian researchers from being able to attend.

Obtaining visas to attend scientific meetings in the U.S. has always required extensive clearance processes for scientists from various countries. The organizing committee of each conference provides foreign attendees material submission dates for visa applications, based on the advice of the U.S. Consulate in each country. For ICCF14, Russian scientists were (in February 2008 at the time of conference planning) required to submit their application package and complete their personal interview within a particular time window, since the visa they received would have to be used within a set period of time (90 days) after issuance and was a single entry visa. ICCF14 organizers were informed that the security clearance process was taking about four or five weeks. Thus for a conference in August, applicants were instructed to complete their interviews no earlier than May 1, 2008 and no later than June 1, 2008 (at that time, the issued visa would be good for 90 days only, so being approved before May 1 would not allow travel to the conference in early August). In the late spring, after most scientists had begun their application process, rules were changed by the U.S. government. Multiple entry visas (without a 90-day time limit) were being made available and the clearance prosecution time became longer, as much as six to eight weeks.

Because the visa application process has multiple steps (paperwork, interviews, fees), many Russian applicants were unable to complete the process before the end of June 2008 (though most of them had applied within the timeframe suggested by the ICCF14 committee). Consequently, most of them did not receive a visa to attend ICCF14.

It is unfortunate that the conference was unable to benefit from the direct participation of the Russian researchers who have been a vital part of the CMNS community. The papers submitted by the Russian scientists, however, are being edited and reviewed for inclusion in the proceedings. This middle-of-the-process visa application change at the U.S. Embassy in Russia highlights another hurdle that conference organizers should anticipate in the future.