ERES NEWSLETTER

EUROPEAN RARE-EARTH AND ACTINIDE SOCIETY
http://ereswww.epfl.ch
Swiss Federal Institute of Technology, Lausanne
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EDITORIAL

This first issue of the Newsletter arrives a little late in the year, but we feel it is still time to wish you an excellent and very successful year 2003. The main part of the issue is devoted to the presentation of the next large international conference on f-elements, to be held in Geneva August 24-29, 2003, the ICFE'5. We hope that the attractive scientific and technical program proposed will catch your attention and urge you to connect to the website of the conference and to register. All the details are on pages 2 and 3. Looking forward to seeing you in Geneva!

RARE EARTHS' 2001 Brazil Proceedings

The proceedings of this international conference are now published as a special 410-page issue of the *Journal of Alloys and Compounds* (Vol. 344, October 7, 2002). The guests editors were M. A. Leskelä, M. F. Reid, H. B. Silber and Lea B. Zinner. They feature 84 contributions belonging to the following topics covered by the conference: (i) analytical and solution chemistry, (ii) coordination chemistry and organometallics, (iii) structures and materials science, (iv) electronic properties, thin films and glasses, (v) spectroscopy, luminescence, phosphors and lasers, (vi) reactivity and catalysis, (vii) physics, magnetism, metallurgy and valence fluctuation, and (viii) applications.

Pawel Krumholz

In these proceedings, P. S. Santos describes the life and achievements of Professor Pawel Krumholz who was born in Poland in 1909. Pawel Krumholz got a PhD degree in analytical chemistry at the University of Vienna in 1932 under the supervision of Professor Fritz Feigl. He moved to Brazil in 1941 where he was involved in several industrial activities, particularly with Orquima. For example, he and his collaborators developed a new approach to rare-earth separation techniques. Pawel Krumholz was also very interested in spectroscopy and in the mid 1950's he studied the sensitivity of the neodymium absorption spectra to the metal ion environment using his home-built high-resolution spectrometer (1 Å). During many years, he pursued a dual career, issuing several patents and producing nice research papers on metal carbonyl complexes, metal-metal bonding, and complexes with multidentate ligands. In 1966, he became Professor of Chemistry at the University of São Paulo where he helped organizing the graduate studies program.

PEOPLE

Geraldo Vicentini 1928-2003

A few hours after writing the preceding story, Professor Lea B. Zinner informed us of the sad news that our esteemed colleague, Professor Geraldo Vicentini passed away on February 8, at the hospital he was confined in during the last three months.

Geraldo Vicentini, a professor of inorganic chemistry at the Instituto de Quimica of the Universidade de São Paulo (USP) was born in São Paulo, Brazil, on April 4, 1928. He earned a PhD degree at the Faculdade de Filosofia Ciencias e Letras of USP under the supervision of Professor H. Rheinboldt, for his work on chalcogens. He then moved to the United States of America for a postdoctoral stay under the guidance of Professor Th. Moeller, at University of Illinois, where he got in touch with lanthanide chemistry.

Geraldo Vicentini is known for his work on lanthanide coordination chemistry. He has been the supervisor of about one hundred masters and PhD students and has published more than 300 scientific papers in specialized journals.

His organizing skills led him to contribute to the establishment of the Chemistry Institute of the University of Campinas and of a Rare-Earth Research Group at the Federal University of Rio Grande do Norte. He was also a distinguished member of the Brazilian Academy of Sciences, of São Paulo Academy of Sciences, and of ERES, as well as the vice-president of the Brazilian Council of Chemistry and the editor of the Annals of the Brazilian Association of Chemistry. Lately, he chaired the successful Rare Earths 2001 meeting in Campos do Jordãos (See Eres Newsletter 13, 1). He enjoyed his ultimate professional satisfaction when he was presented, at the hospital, the bound volume of the proceedings of the conference.

We mourn a great scientist and teacher, and a very good friend. We ensure his family and friends of our sincere condolences.

5th International Conference on f-Elements

Geneva, Switzerland, August 24-29, 2003

List of confirmed speakers and chairs

Plenary lecturers

Kenneth Raymond, University of California, Berkeley
Alex Müller, University of Zürich (Nobel laureate)
Claudio Luchinat, CERM, University of Florence
Claude Ceintrey, Rhodia Electronic and Catalysis
The awardee of the LeCoq de Boisbaudran prize

Sessions chairs and lecturers

A. Christian Klixbüll Jørgensen Symposium

Chairs Brian Judd (Johns Hopkins University), Michael F. Reid (University of Canturbury)

Speakers
Brian Judd (Johns Hopkins University), Boris Malkin (Kazan University), Alan Williams (University of Geneva), Michael F. Reid (University of Canturbury), Jean-Claude Krupa (Institut de Physique Nucléaire)

B. Organic Syntheses and Catalysis

Chairs Garry A. Molander (University of Pennsylvania), Shu Kobayashi (University of Tokyo)

Speakers
Zhaomin Hou (RIKEN Institute), Hiroshi Tsukube (Osaka City University), Robert Flowers (Texas Tech. University), Troels Skrydstrup (University of Aarhus), Helen Aspinall (University of Liverpool)

C. Chemistry and Physics of Solid State Compounds

Chairs Lauri Niinistö (Helsinki University of Technology), Peter Dorhout (Colorado State University)

Speakers
Susan Kauzlarich (University of California, Davis), Mathias Wickleder (University of Cologne), Stéphane Jobic (Institut des Matériaux Jean Rouxel), Regino Saez-Puche (University Complutense), Roger Marchand (University of Rennes)

Chairs: Vitalij Pecharsky (Iowa State University), Hans-Ulrich Güdel (Universität Bern)

Speakers
Karl A. Gschneidner Jr. (Iowa State University), Joel Mesot (ETH Zürich), Luis Morellòn (Universidad de Zaragoza), Markus Pollnau (Swiss Federal Institute of Technology, Lausanne)

D. Environmental Aspects

Chair Heino Nitsche (University of California Berkeley)

Speakers
Heino Nitsche, Gerhard Geipel (Research Center Rossendorf)

E. Chemistry and Physics of the actinides

Chairs Antonio Pirès de Matos (LNETI, Lisboa), Michel Ephritikine(CEA Saclay)

Speakers
Carol J. Burns (Los Alamos National Laboratory), Dr Guokui Liu (Argonne National Laboratory), R. J. M. Konings (Joint Research Centre, Institute for the Transuranium Elements, Karlsruhe)

F. Supramolecular and Coordination Chemistry

Chairs T. C. W. Mak (The Chinese University of Hong Kong), Michael T. Ward (University of Bristol)

Speakers
K. Binnemans (Katholieke Universiteit Leuven), David Parker (University of Durham) Vincent L. Pecoraro (University of Michigan), Zuowei Xie (The Chinese University of Hong Kong), Raymond Ziessel (ECPM, Strasbourg)

G. Industrial Applications

Chairs Patrick Maestro (Rhodia Services), Karl Schermanz (Treibacher AG)

Speakers
Philippe Tenaud (Ugimag-Carbone Lorraine), Dick van der Voort (Philips Lighting), Chunhua Yan (State Key Laboratory Beijing), A. Trovarelli (Università di Udine)

H. Modeling and Extraction Processes

Chairs Georges Wipff (Université Louis Pasteur, Strasbourg), Charles Madic (CEA, Bagnols-sur-Cèze)

Speakers
Michael Drew (University of Reading, Chien M. Wai (University of Idaho), Benjamin Hay (Pacific Northwestern National Laboratory)

I. Organometallic and chalcogenide clusters

Chairs Joseph Takats (University of Alberta), W. J. Evans (University of California, Irvine)

Speakers
Andrea Sella (University College London), James A. Ibers (Northwestern University), John G. Brennan (Rutgers University), Jun Okuda (Johannes Gutenberg-Universität Mainz), Odile Eisenstein (Université de Montpellier II)

J. Molecular Magnetism

Chairs Cristiano Benelli (Università di Firenze), Jean-Pierre Costes (CNRS Toulouse)

Speakers
Naoto Ishikawa (Tokyo Institute of Technology), A. Dean Sherry (University of Texas at Dallas), Cristiano Benelli (University of Florence)

COST D18 Symposium

Chairs André Merbach (Swiss Federal Institute of Technology, Lausanne), Carlos F.G.C. Geraldes (University of Coimbra)

Speakers To be announced in March

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ICFE'5

Geneva August 24-29

The scientific program of the conference is now almost entirely prepared and will feature ten sessions covering a broad scope of rare-earth and actinide science, as well as the associated COST D18 workshop (two and half days). The latter program is an emanation from the European Union to promote cooperation in science and technology and the D18 action is devoted to *Lanthanide Chemistry for Diagnosis and Therapy*. For more information, see opposite page or consult the conference website.

Registration will be opened on Sunday August 24, followed by a welcome party.

Monday August 25 will feature a plenary lecture by Professor Ken Raymond and will be devoted to Sessions A, B, and COST. It will end with a poster session.

On Tuesday, August 26, the plenary lecturer will be Professor Alex K. Muller, Nobel laureate. Sessions C and COST will take place, as well as two poster sessions. The day will end with the general meeting of our association.

Wednesday, August 27, will feature a lecture by the awardee of the ERES prize for a young scientist and a plenary lecture by Professor Claudio Luchinat. Three parallel sessions will be held, D, E and COST in the morning. The afternoon is free and the conference dinner will take place in the evening, featuring a boat tour on lake Léman.

Claude Ceintrey from Rhodia will be the plenary lecturer on Thursday, August 28, followed by three parallel sessions, C, F and G and two poster sessions.

On the last day, the plenary lecture will be given by the awardee of the LeCoq de Boisbaudran award, sponsored by Rhodia Electronics and Catalysis. Sessions H, I and J will then be held and the conference will close by a short ceremony at 5 p.m.

Registration is now open on the web site of the conference, as well as abstract submission.

http://ereswww.epfl.ch

New deadlines
Reduced fees!!

Deadlines for the conferences have been changed. Here are the new data:

Abstracts	April 30, 2003
Registration	June 15, 2003
Manuscripts	June 15, 2003

Due to a reasonably high level of sponsoring, fees have been reduced by 50 CHF and are now as follows:

Regular	550 CHF
Students	350 CHF*
COST D18	350 CHF*
Accompanying person	150 CHF
After June 15, add CHF 150	
* Attestation required	

ERES GENERAL ASSEMBLY

ERES membered are invited to take part in the fifth triennial general assembly of the association, to be held on August 26, 2003 at ICFE'5, at 5 p.m. Statutory agenda:

1. Reports of the executive committee, of the treasurer and of the financial auditors; 2. Election of the executive committee 2003-2006; 3. Venue for Icfe'7; 4. Varia.

JUDD-OFELT THEORY
40th anniversary

On August 1st 1962, two papers were published which revealed to represent a landmark in lanthanide spectroscopy and research. *Intensities of Crystal Spectra of Rare-Earth Ions*, authored by George S. Ofelt from the Johns Hopkins University, Baltimore, appeared in the third issue of Volume 37 of *The Journal of Physical Chemistry* (submission date: February 26). *Optical Absorption Intensities of Rare-Earth Ions* authored by Brian R. Judd from the Lawrence Radiation Laboratory, Berkeley, appeared in the third issue of Volume 127 of *Physical Review*, (submission date: March 12, 1962). While G. S. Ofelt applies his theoretical considerations to the emission spectra of praseodymium and europium chloride, B. R. Judd makes a comparison with the absorption spectra of neodymium and erbium chloride.

No wonder why the names of the two authors are intimately linked in what is known today as the Judd-Ofelt theory. One interesting fact is that the authors never collaborated, nor met! The theory describes one-photon electric dipole f-f transitions and the phenomenological intensity parameters ω_λ ($\lambda = 2, 4, 6$) are used for interpreting various optical properties of solids and solutions containing lanthanide ions.

Special issue of Molecular Physics

To celebrate the 40th anniversary of the Judd-Ofelt theory, Lidia Smentek from the Nicholas Copernicus University in Torun (Poland) and Andy Hess from Vanderbilt University in Nashville, Tennessee, have prepared, as guest editors, a special issue of *Molecular Physics*. The first contribution in this issue is by Brian Judd, *Rare-Earth Intensity Trials* while George Ofelt has authored the second one, titled *Reflections on the development of the Judd-Ofeld Theory.* In addition 23 other contributions are written by leading rare-earth spectroscopists.

The special issue will be presented to George Ofelt and Brian Judd during a dedicated session of the workshop on rare-earth spectroscopy organized by Wieslaw Strek and Janina Legendziewicz in Karpacz (Poland) this coming June. The ceremony will be chaired by Brian Wybourne.

ERRATA

RIC closure

In our last issue, we have presented the story of the closure of the Rare-Earth Information Center (RIC) in Ames. Professor Karl A. Gschneidner Jr. has drawn our attention on a mistake. Bill (R. William) McCallum did not replace Jennings "Cap" Capellen. Cap was replaced by Joel Calhoun, who was in turn replaced by Angela O'Connor a few years ago as the *RIC News* staff writer. Bill McCallum had no responsibilities with respect to RIC until he replaced professor Karl A. Gschneidner Jr. as the Director of RIC and Editor of the Newsletter in 1996.

25th RERC

Contrary to what we have stated, the 25th Rare Earth Research Conference will not be held in 2008 in Edmonton (Canada), but in Alabama under the chairmanship of Professor Robin Rogers.

BOOKS

Handbook Editorial changes

Prof. LeRoy Eyring is retiring as a co-editor of the *Handbook on the Physics and Chemistry of Rare Earths* The editorial duties of future issues of the Handbook will continue to be handled by the senior editor (Karl A. Gschneidner, Jr.) with the assistance of two new editors: Prof. Jean-Claude Bünzli, Swiss Federal Institute of Technology, Lausanne, and Prof. Vitalij K. Pecharsky, Iowa State University. Volume 33 is scheduled to be published in Spring 2003.

Inorganic and Analytical Chemistry of Scandium

This 512-page monograph has been written by Dr. L. N. Komissarova and published by Editorial URSS in Moscow, in 2002.
The author focuses both on the classical scandium compounds (intermetallic phases, non-oxygen binary compounds, mixed oxides, hydroxides, peroxides, carbonates, nitrates, phosphates, phosphites, vanadates, sulfates and sulfites) and on analogous compounds containing Os, Se, Te, Cr, Mo and W. Several types of organic derivatives are described, particularly those of importance to the manufacture of luminescent materials. The state of scandium ions in aqueous solutions is also discussed. All classical methods of analysis (gravimetry, complexometry, spectrometry, electrochemistry) are reviewed, as well as separation methods from other cations.

The book features 109 tables, 12 illustrations and 2776 references. It is intended for scientists, engineers and students having a special interest in scandium chemistry.
Ordering information: Editorial URSS, Moscow; Fax +7 95 135 44 32, phone +7 95 135 42 46; http://urss.ru; e-mail: urss@ru.

Proceedings 5th ESTE

The proceedings of the 5th International Conference on Excited States of Transition Elements, held in Ladek Zdrój (Poland), June 6-11, 2001 are now published as a special 403-page issue of the *Journal of Alloys and Compounds* (Vol. 341, July 17, 2002). The guest editors were Janina Legendziewicz, Pierre Porcher and Wieslaw Strek.

They feature 73 contributions mainly devoted to spectroscopy of solid state materials and of coordination compounds.

Rare Earth Elements-Critical Resources for High Technology

Gordon B. Haxel, James B. Hedrick, and Greta J. Orris from the United States Department of the Interior, U.S. Geological Survey, have come up with a very informative and nicely illustrated 4-page color factsheet full of technical and statistical information. Abundances, resources, production and applications of rare earths are reviewed.

This publication can be obtained by calling James Hedrick at +1 703 648 7725 or sending him an e-mail message: jhedrick@usgs.gov.

AGENDA

MAJOR CONFERENCES

ICFE'5 August 25-29, 2003
http://ereswww.epfl.ch

RARE EARTHS' 04
7-12 November 2004
Rare Earths 2004.
Nara, Japan
Prof. Gin-Ya Adachi
http://kidorui.chem.eng.osaka-u.ac.jp/RE2004.html

24TH RERC June 26-30, 2005
Twenty-fourth Rare Earth Research Conference Inc.
Fort Collins, Colorado, USA
Prof. Peter Dorhout
Colorado State University
Department of Chemistry
FORT COLLINS, CO 80523
☎ (+1 970) 491 0624 Fax 941-1801
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OTHER EVENTS

SUMMER SCHOOL
June 11-14 2003
2nd Summer School on Basic Actinide Research
Karlsruhe, Germany
http://ituwebpage.fzk.de

4TH RES June 21-26 2003
4th International Spring Workshop on Spectroscopy, Structure and Synthesis of Rare Earth Systems
Karpacz, Poland
http://www.chem.uni.wroc.pl/

SCANDIUM Aug. 16-22, 2003
International Symposium on Mineralogy and Geochemistry of Sc
Oslo, Norway
http://www.nhm.uio.no/geomus/scsymp