

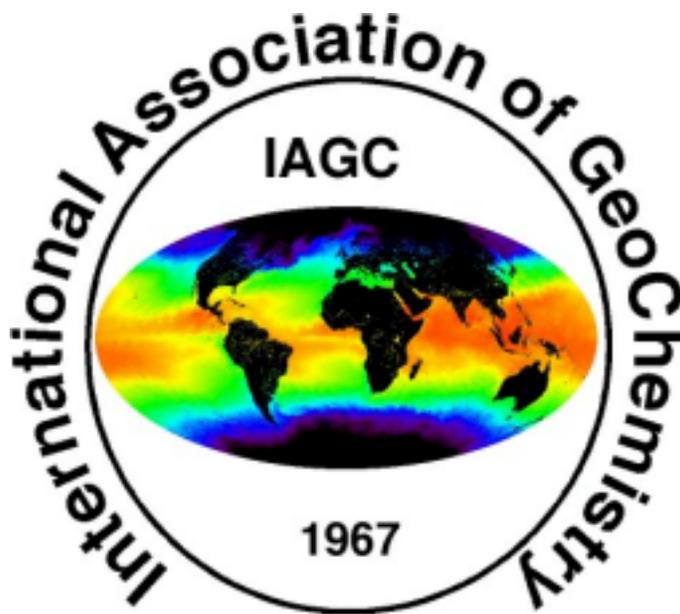
# Newsletter

of the

**International Association of GeoChemistry**

**Number 44, May 2006**

**Mel Gascoyne, Newsletter Editor**



## **NEWS FROM THE ASSOCIATION**

- **Obituary: Al Levinson**
- **Elements New Issues**
- **News from Elsevier**
- **WG on TNP Report**
- **IUGS & *Episodes***

## ASSOCIATION NEWS

### Obituary: Al Levinson



Alfred Abraham Levinson  
1928 – 2005

Al, as he was known to countless mineralogists, geochemists and friends around the world, will be missed by them all. He had a remarkable career with major accomplishments in industrial brines, exploration geochemistry, gemmology, and as an editor. His system of nomenclature for rare-earth minerals is used universally, and the rare mineral Levinsonite-(Y) is named in his honour.

Although Al was born on Staten Island, New York, and obtained his formal education in the USA, he spent most of his professional career in Canada at the University of Calgary. After receiving his Ph.D. at the University of Michigan (1952) and a short stint at Ohio State University (1953–1956), he joined the Dow Chemical Company at Freeport, Texas (1956–

1961). There, his interest was in exploration for brines and their possible economic minerals. At that time, the US government was interested in purchasing pure yttrium metal, which they extracted from xenotime ( $YPO_4$ ). Al noticed specific variations in the content of both Y and other rare-earth elements, and developed his system of nomenclature, with perhaps 50 or so mineral species now having been identified using the 'Levinson modifier'. After a spell with Gulf Research and Development Co. in Pittsburgh, Pennsylvania (1962–1967), where he applied mineralogical methods to petroleum exploration, he found his academic niche at the University of Calgary, which he joined in 1967. It was at this time that the writer met Al, and we remained very close friends until his death.

In the academic environment of the new University of Calgary, Al flourished. He took over the position of Executive Editor of *Geochimica et Cosmochimica Acta* (1967–1970) and revitalised that journal, as well as editing the proceedings of the first two Lunar Science Conferences. His experience at these two tasks was of immense help to me when the Pergamon journal *Applied Geochemistry* was founded in 1986, and I became Executive Editor.

Al's expertise for many years was in exploration geochemistry, and he published two books on the subject: *Introduction to Exploration Geochemistry* (1974, translated into Russian in 1976; second edition 1980) and *Practical Problems in Exploration Geochemistry* (1987, with P.M.D. Bradshaw and I. Thomson). These were issued through his company, Applied Publishing Ltd., which also published *Geochemical Exploration Methods for Mineral Deposits* by A.A. Beus and S.V. Grigorian in 1977 (Al was the technical editor). Al also published *Moon Rocks and Minerals* with S.

Ross Taylor (Pergamon Press, 1971). Through Al's generosity, Applied Publishing is now an imprint of the writer's company Geoscience Publishing.

Shortly before Al 'retired' to become an emeritus at the University of Calgary in 1994, he switched his expertise to gems, mainly diamonds, publishing predominantly in the journal *Gems and Gemology*, where the editor, Alice Keller, became another very close friend.

Al was a very hard working person, generous in his assistance to anyone who needed his help and expertise, with a great sense of humour. His family and his many friends and colleagues will miss him greatly.

**Brian Hitchon**

## **Elements**

The new year has seen the production of bimonthly issues of Elements and issues 1 and 2 (for February and April) have already been distributed. These issues are on Research Facilities in the Earth Sciences and Arsenic Geochemistry.

Managing Editor, Pierrette Tremblay, would love to hear if you have any comments or words of praise! ([Pierrette\\_tremblay@inrs-ete.quebec.ca](mailto:Pierrette_tremblay@inrs-ete.quebec.ca))

Commencing with the upcoming June issue, only those paid up for dues for 2006 will receive the issue. If you have not renewed your IAGC membership for 2006, please do so quickly so that your supply of "Elements" issues is not interrupted (I receive a few 'spare' copies of each printing to deal with delinquents!). However, because the print run of an issue is close to the membership demand for all participating societies, it will be difficult to get back-issues after the year has passed.

## **2006 Activities**

The first set of IAGC awards was planned to be made at the 2006 Goldschmidt Conference in Australia. However, due to a limited response for nominations and the short notice required to meet the requirements, it was decided by the Executive to postpone the awards for one year and hold the ceremony to coincide with the 2007 Goldschmidt conference (see below).

Other upcoming meetings and events include:

- 1) ISEG-7 (the International Symposium of Environmental Geochemistry), to be held in Beijing, China, 24-27 Sept. 2006; Details can be found at [www.iseg2006.com](http://www.iseg2006.com)
- 2) GSA Annual Meeting, scheduled for 22-25 October in Philadelphia. GSA web site is ([www.geosociety.org](http://www.geosociety.org))
- 3) WRI-12 (International Symposium on Water-Rock Interaction) to be held in Kunming, China, 13-18 August 2007. Abstracts are due in December 2006, ([www.wri12.org](http://www.wri12.org)).

### **Applied Geochemistry – Are you missing any issues?**

There have been very few reports of lack of receipt of *Applied Geochemistry* issues for 2004 or 2005. If you are missing any issues, contact the Business Office with your needs. The Business Office is willing to mail out missing issues of volumes 17, 18, 19 & 20 to fill in the gaps of members' collections, free of charge! Let us know if you are missing an issue.

Note that we cannot replace large numbers of missing issues - members should contact the Business Office separately to arrange this ([iagc@granite.mb.ca](mailto:iagc@granite.mb.ca))

## News Brief on *Applied Geochemistry* and Elsevier

### Friso Veenstra has some information on changes in Elsevier:

There are two issues that may be of direct interest to IAGC members as they have implications for your journal, *Applied Geochemistry*.



First of all, I would like to remind you that the free **ContentsDirect** alerting service will finally close on 25 May 2006. So please ensure you do not miss out on any future table of contents alerts and sign up to the free ScienceDirect Volume/Issue Alerts service at ScienceDirect (<http://www.sciencedirect.com>) in order to continue to receive table of contents alerts for *Applied Geochemistry* and all other journals you are interested in. Signing up will only take a few minutes: (1) Visit ScienceDirect ([www.sciencedirect.com](http://www.sciencedirect.com)). (2) Click on the green Alerts tab top right. (3) If you are a new user, register for a username and password. (4) Login and follow the instructions for setting up free ScienceDirect Volume/Issue Alerts. If you would like to view a short demonstration on how to sign up for ScienceDirect Volume/Issue Alerts, please visit: the web site:

<http://www.elsevier.com/locate/sciencedirectalerts>.

Secondly, as of this month, Elsevier is changing its offprints policy as we are implementing **electronic offprints** for all our journals. What it means for *Applied Geochemistry* is that, as of May 29, authors will be given the choice between e-offprints and free paper offprints. This will also apply to special issues.

### Friso Veenstra

Publisher. Elsevier Ltd.

e-mail: [l.veenstra@elsevier.com](mailto:l.veenstra@elsevier.com)

## Working Group Report

### Thermodynamics of Natural Processes

The main activity of the WG took place just during the last months of 2005 with the aim to organize participation of Russian and other geochemists in two traditional meetings. First of these Meetings is the International Symposium on Hydrothermal Reactions-VIII, which will be held in Sendai, Japan in August 5 - 9, 2006. The necessary information about this event was sent to a lot of geochemists personally, in particular, to Dr. G. Likhoidov (Vladivostok), to Dr. V. Tauson (Irkutsk), Profs D.Grichik and Ryzhenko, Dr. A. Bychkov (Moscow), Dr. D. Kulik (Swiss) and so on. At this moment, Abstracts are submitted in sufficient number at this Symposium (e.g., G. R. Kolonin, G.P. Shironosova "Thermodynamic model of joint Be-ores and REE-fluorite formation from hydrothermal chloride-fluoride fluids", G.G. Thomas et. al "Silicate liquids in natural hydrothermal processes", G.Pavlova et. al "Gold and silver mineralization at hydrothermal Au-Sb,Ag-Sb and Au-Ag deposits". Now I try to contact Prof. V. Valyashko (Kurnakov Inst, of Inorganic Chem., Moscow) who was the OC member at ISHR-VI and VII in order to

establish effective interaction with the OC in Sendai, Japan. It was my idea to provide a previous discussion about a possible IAGC sponsorship for this meeting.

Another direction of WG activity was the 12<sup>th</sup> International Symposium on Solubility Phenomena and related equilibrium processes in July 24<sup>th</sup>-29<sup>th</sup> 2006 in Freiberg, Germany including a workshop entitled “Quality Assurance in Thermodynamic Databases for Performance Assessment Studies in Waste Disposal”. In particular, Drs. Shironosova and G.R. Kolonin have prepared both the Abstract and report titled “Thermodynamic model of REE-fluorite solubility in high-temperature chloride fluids”. Additionally, I try to get Dr. O. Gaskova (Novosibirsk) and Dr. D. Kulik (Swiss) and others to take part in the workshop mentioned above.

In general, the main result of WG on TNP activity could be suggestions to IAGC concerning sponsorship of both Symposia as well as the following financial assistance of some geochemical participants. I believe, this issue can be discussed later in more detail after scientific programs of the ISHR-VIII and 12 ISSPh will be approved.

**German Kolonin, Chairman, IAGC Working Group on Thermodynamics of natural Processes**

### **How to contact us:**

**To join or renew your membership in the IAGC, subscribe to or track down errant issues of *Applied Geochemistry*, or to send in comments, etc., contact:  
IAGC Business Office, Box 501,  
Pinawa, Manitoba R0E 1L0, Canada.  
Or check out our web site [www.iagc.ca](http://www.iagc.ca)**

## **Message from the IUGS**

The IAGC is an affiliated organization of the International Union of Geological Sciences. Godfrey S. Nolan is the Chairman of the IUGS Publications Committee and is conducting a campaign to promote the IUGS journal *Episodes* worldwide. He has asked if the following could be included in the IAGC Newsletter.

*Episodes* is the official quarterly journal of the IUGS ([www.iugs.org](http://www.iugs.org)). It covers developments of regional and global importance in the earth sciences and is distributed worldwide in four issues (March, June, September and December) each about 80 pages long. The journal is likely the most widely distributed earth science journal since copies go to more than 150 countries worldwide. Articles cover a wide range of earth sciences and authors are from all over the world. The content is of interest to a broad audience of professional earth scientists having diverse cultural and linguistic backgrounds. Whether you live in the developing or developed world, you will find lots of content of interest. Published articles include current reviews, new results from research projects of more than local significance, and discussion of the infrastructure of science, including techniques, research programs, organizations, science policy, or technical assistance. The journal offers earth scientists:

- authoritative articles that reflect worldwide research advances and evolving trends in geoscience disciplines;
- a forum for information exchange within the global earth-science community;
- book reviews by experts in your field;
- news about activities sponsored by IUGS and its affiliates;

- a comprehensive calendar of future international geoscience events and training opportunities; and
- concise reports concerning results of international meetings, conferences, and symposia.

*Episodes* welcomes thoughtful contributions in the topical areas listed above. Please consult the *Episodes* web site for submission guidelines (<http://www.episodes.org/>). Feel free to direct further inquiries concerning preparation and submittal of manuscripts and illustrations, special requirements, and pre-press processing to the *Episodes* staff whose contacts are listed on the web site.

Recent and current issues of the journal can be viewed on-line at <http://www.episodes.org/>. The printed version of the journal can be yours for the very reasonable annual subscription rate of US\$24.00. A subscription order form is published regularly in the journal itself and you can also subscribe by contacting the editorial office by mail at:

P.O. Box 823  
26 Baiwanzhuang Road  
Beijing 100037  
China

Or, by e-mail at [episodes88@yahoo.com](mailto:episodes88@yahoo.com)

Information on bulk subscriptions, back issues, and advertising rates is available on request. Cheques should be made payable to “*Episodes*”. A variety of credit cards including Diners, JCB, Visa, American Express and Mastercard are also accepted.

## A new book by Gunter Faure

**Introduction to Planetary Science; The Geological Perspective** by Gunter Faure and Teresa M. Mensing (To be published by Springer-Verlag, Dordrecht, in 2007)

This textbook is intended to be used in a lecture course for college students majoring in the Earth sciences. Planetary science provides an opportunity for these students to apply a wide range of subject matter pertaining to the Earth to the study of other planets and their principal satellites. In this way, planetary science tends to unify subjects in the Earth sciences that are traditionally taught separately. Therefore, planetary science is well-suited to be taught as a **capstone** course for senior undergraduates in geology departments and as an introduction to the solar system in astronomy departments. Both groups of students will benefit because planetary science bridges the gap between geology and astronomy and it thereby prepares geologists and astronomers to actively participate in the on-going exploration of the solar system.

## IAGC Executive Officers

### PRESIDENT

John Ludden  
Directeur Adjoint INSU/SDU - CNRS  
3, rue Michel-Ange BP 287  
75766 Paris Cedex 16, FRANCE  
Phone: 33(0)1 44 96 43 83  
Fax: 33(0)1 44 96 53 50  
E-mail [john.ludden@cnrs-dir.fr](mailto:john.ludden@cnrs-dir.fr)  
[www.cprg.cnrs-nancy.fr/Equipes/FR/ludden.html](http://www.cprg.cnrs-nancy.fr/Equipes/FR/ludden.html)

### VICE-PRESIDENT

Russell S. Harmon  
Environmental Sciences Division  
Army Research Office (AMSRD-ARL-RO-EV)  
US Army Research Laboratory  
PO Box 12211  
Research Triangle Park, NC 27709-2211,  
USA  
Tel: 1-919-549-4326  
Fax: 1-919-549-4310  
E-mail: [russell.harmon@us.army.mil](mailto:russell.harmon@us.army.mil)

### PAST-PRESIDENT

Erik M. Galimov  
Director, Vernadsky Inst. of Geochemistry  
& Analytical Chemistry  
Russian Academy of Sciences  
Kosygin st 19  
Moscow 117975, GSP-1  
RUSSIA  
Fax: 7-095-9382054  
e-mail: [galimov@geokhi.msk.ru](mailto:galimov@geokhi.msk.ru)

### TREASURER

Gunter Faure  
Department of Geological Sciences  
The Ohio State University  
125 South Oval Mall  
Columbus  
Ohio 43210-1398, USA  
Fax: 1-614-292-1496  
E-mail: [faure.1@osu.edu](mailto:faure.1@osu.edu)

### SECRETARY

Attila Demeny  
Institute for Geochemical Research  
Hungarian Academy for Sciences  
Budapest, Budaorsi ut 45,  
H-1112, HUNGARY  
Tel: (361-)309-2600/ ext. 1223 (office), 1394  
(lab)  
Fax: (361-)319-3137  
e-mail: [demeny@geochem.hu](mailto:demeny@geochem.hu)  
<http://www.geochem.hu/>

### EDITOR

Ron Fuge  
Institute of Geography and Earth Sciences  
University of Wales, Aberystwyth,  
Ceredigion, SY23 3DB,  
U.K.  
Fax: +44 1970 622659  
Ph: +44 1970 622642  
e-mail: [rff@aber.ac.uk](mailto:rff@aber.ac.uk)

### NEWSLETTER EDITOR/BUSINESS OFFICE MANAGER

Mel Gascoyne  
GGP Inc.,  
Box 141,  
Pinawa,  
Manitoba R0E 1L0  
CANADA  
Fax: 1-204-753-2292  
E-mail: [gascoyne@granite.mb.ca](mailto:gascoyne@granite.mb.ca)

## Council Members

Norbert Clauer  
Université Louis Pasteur Strasbourg  
CGS / EOST, UMR 7517  
1 rue Blessig  
67084 STRASBOURG Cedex,  
FRANCE  
Ph.: 03.90.24.04.33  
fax.: 03.90.24.04.02  
e-mail : [nclauer@illite.u-strasbg.fr](mailto:nclauer@illite.u-strasbg.fr)

Shaun Frape,  
Dept. of Earth Sciences,  
University of Waterloo,  
Waterloo,  
Ontario N2L 3G1  
CANADA  
Fax 1-519-746-2543  
e-mail: [shaun@sciborg.uwaterloo.ca](mailto:shaun@sciborg.uwaterloo.ca)

John E. Gray,  
U.S. Geological Survey  
P.O. Box 25046, MS 973  
Denver, CO 80225, USA  
phone: 1 1-303-236-2446  
fax: 1-303-236-1425  
email: [jgray@usgs.gov](mailto:jgray@usgs.gov)

Andrew Herczeg  
Isotope Hydrology Section  
International Atomic Energy Agency  
Wagramer Strasse 5, P.O. Box 200  
A-1400 Vienna, AUSTRIA  
Phone: +43-12600 21742  
Fax: +43-1-26007  
E-mail: [a.herczeg@iaea.org](mailto:a.herczeg@iaea.org)  
<http://www.iaea.org/programmes/ripco/ih/>

Jan .D. Kramers  
Isotope Geology Group  
Min. Petr. Institute  
University of Bern  
Erlachstrasse 9a  
3012 BERN  
SWITZERLAND  
Phone +41 31 631 87 89  
Fax +41 31 631 49 88

W. Berry Lyons  
Director, Byrd Polar Research Center  
Department of Geological Sciences  
The Ohio State University  
1090 Carmack Road  
Columbus Ohio 43210-1002  
USA  
Ph: 1-614-688-3241  
Fax: 1-614-292-4697  
e-mail: [lyons.142@osu.edu](mailto:lyons.142@osu.edu)

Martin Novak  
Czech Geological Survey  
Geologicka 6  
152 00 Prague 5  
CZECH REPUBLIC  
Ph: +420-251085333  
Fax: +420-251818748

Kenji Notsu  
Laboratory for Earthquake Chemistry, Graduate  
School of Science,  
University of Tokyo, 7-3-1 Hongo, Bunkyo-ku,  
Tokyo 113-0033,  
JAPAN  
Fax: +81-3-5841-4119  
Phone: +81-3-5841-4624  
E-mail: [notsu@eqchem.s.u-tokyo.ac.jp](mailto:notsu@eqchem.s.u-tokyo.ac.jp)

Andrew Parker  
Geoscience Building  
School of Human and Environmental Sciences  
University of Reading  
Whiteknights  
Reading RG6 2AB  
UK  
Fax: 44 (0)118 931 0279  
Tel: 44 (0)118 378 8944  
E-mail: [a.parker@reading.ac.uk](mailto:a.parker@reading.ac.uk)

Alakendra N Roychoudhury  
Department of Geological Sciences  
University of Cape Town  
Rondebosch, 7700,  
SOUTH AFRICA  
email: [aroy@geology.uct.ac.za](mailto:aroy@geology.uct.ac.za)  
Tel: +27 21 650 2902  
Fax: +27 21 650 3783  
<http://web.uct.ac.za/depts/geolsci/people/staff/roy/indx.html>

## Working Group Chairmen

### GEOCHEMISTRY OF THE EARTH'S SURFACE

Sigurdur Reynir Gislason  
Institute of Earth Sciences  
University of Iceland  
Askja, Sturlugata 7  
101 Reykjavik  
Iceland  
Tel.: 354-525-4497  
Fax: 354-525-4499  
e-mail: [sigr@raunvis.hi.is](mailto:sigr@raunvis.hi.is)

### GEOCHEMICAL TRAINING IN THE DEVELOPING COUNTRIES

U. Aswathanarayana  
Hon. Director, Mahadevan International Centre for  
Water Resources Management,  
Contact address : B-16, Shanti Sikhara  
Apts., Somajiguda, Hyderabad-500 082,  
India  
Fax no. +91-40- 2332 9145  
Phone no: +91-40- 23399440  
E-mail: [uaswathanarayana@yahoo.com](mailto:uaswathanarayana@yahoo.com)

### WATER-ROCK INTERACTION

Yousif K Kharaka  
U. S. Geological Survey, MS 427  
345 Middlefield Rd.,  
Menlo Park, California 94025  
USA  
Fax: 1-650-329-4538  
Phone: 1-650-329-4535  
E-mail: [ykharaka@usgs.gov](mailto:ykharaka@usgs.gov)

### THERMODYNAMICS OF NATURAL PROCESSES

German Kolonin  
Institute of Mineralogy and Petrography  
Siberian Branch of Russian Academy of Sciences  
Prospect of Academic Koptyug, 3  
Novosibirsk 630090  
Russia  
Fax no. 8-3832-332-792  
E-mail: [kolon@uiaggm.nsc.ru](mailto:kolon@uiaggm.nsc.ru)

### GLOBAL GEOCHEMICAL BASELINES

David B. Smith  
U.S. Geological Survey  
Denver Federal Center  
Box 25046, MS 973  
Denver, CO 80225  
Phone: 1-303-236-1849  
Fax: 1-303-236-3200  
email: [dsmith@usgs.gov](mailto:dsmith@usgs.gov)

### GEOCHEMISTRY OF HEALTH & DISEASE

Harvey E. Belkin  
US Geological Survey  
954 National Center  
Reston, VA 20192, USA  
Tel: 1-703-648-6162  
e-mail: [hbelkin@usgs.gov](mailto:hbelkin@usgs.gov)

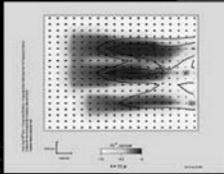
### APPLIED ISOTOPE GEOCHEMISTRY

Martin Novak  
Head of Geochemistry Department  
Czech Geological Survey  
Geologicka 6  
152 00 Prague 5  
CZECH REPUBLIC  
Ph: +420-251816540  
Fax: +420-251818748

# What's in your water?

## Look deeper with GWB's fate and transport prediction tools:

- Migration of landfill leachate
- Acid rock drainage
- Metal mobility
- Redox control on solute mobility
- Solute attenuation

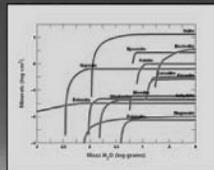


### GWB Professional

Includes GWB Standard plus:

- 1D/2D reactive transport modeling
- Transport by advection, diffusion, dispersion
- Saturated or unsaturated flow
- Constant or varying permeability
- Variably spaced grids
- Heterogeneous domains and initial conditions
- Flexible boundary conditions

**\$7,999**

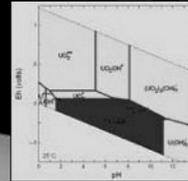


### GWB Standard

Includes GWB Essentials plus:

- Reaction path modeling
- Polythermal models
- Mineral dissolution/precipitation and redox kinetics
- Microbial metabolism and growth
- Custom rate laws

**\$2,999**



### GWB Essentials

- Speciation/saturation indices
- Activity (including Eh-pH diagrams)
- Aqueous diagrams (Piper, Stiff, etc.)
- Debye-Hückel or Pitzer models
- Sorption and surface complexation

**\$799**

## The Geochemist's Workbench®

Pre and post processing in minutes



**RockWare®**

Since 1983

Earth Science Software, GIS Software, Training & Consulting

2221 East St, Ste 101 • Golden CO, USA 80401 • 303.278.3534 • F: 303.278.4099

[www.RockWare.com](http://www.RockWare.com)

The Geochemist's Workbench® is a registered trademark of the University of Illinois.

Copyright © 2005 RockWare, Inc. and its licensors. All rights reserved.