

August 2000

VGP Section Newsletter #1

This month sees the inauguration of a bi-monthly newsletter aimed specifically at the membership of the AGU Volcanology, Geochemistry, and Petrology (VGP) section. The aim is to increase communication between VGP leadership and members on a variety of subjects of interest. Future newsletters could also include news items or announcements contributed by VGP members (contact Sarah Fagents at fagents@asu.edu).

First of all, we urge you to prepare nomination packages for Bowen, Macelwane and AGU Fellowships now! Deadlines are in October.

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WHO'S WHO IN VGP

To acquaint you with the new guard we offer a brief synopsis of VGP officers and committee members:

President: Fred Frey, MIT; fafrey@mit.edu

President elect: Kathy Cashman, U. Oregon; cashman@oregon.uoregon.edu

Bowen Award Committee: Mac Rutherford (chair), Brown U.; macr@brown.edu

Education/Outreach Committee: Roger Nielsen (chair), Oregon State U.; rnielsen@oce.orst.edu

Macelwane Award Committee: Alex Halliday (chair), ETH Zentrum; halliday@erdw.ethz.ch

Meetings Committee: Don Dingwell (chair), Inst. Mineralogie and Petrologie; dingwell@petro1.min.uni-muenchen.de

Publications Committee: Hubert Staudigel (chair), Scripps Inst. Oceanography; hstaudigel@ucsd.edu

VGP Fellows Committee: Al Hofmann (chair), Max-Planck-Institut für Geochemie; hofmann@mpch-mainz.mpg.de

MESSAGE FROM MEETINGS COMMITTEE CHAIR

Few aspects of the activities of the AGU are more central to its existence than its Fall and Spring meetings. For many new members such meetings are the first and often most lasting impression of the AGU, its membership and its activities.

The task of scientific coordination and planning of such meetings is largely developed at the section level. As VGP secretary, I represent our section as Chair of the Meetings Committee and, more specifically, at the planning level of the AGU for the Fall meeting. A primary aspect of this work is the

solicitation of themes for special sessions and symposia from the membership. Another is the encouragement of proposals for Chapman Conferences. If you have any questions, comments or recommendations regarding these two matters, please do not hesitate to contact me. Over the years, VGP has enjoyed a stable growth in quality and number of contributions at AGU meetings. For our section, the mixture between special sessions, symposia and general sessions continues to be a very healthy one. Virtually every member can find elements of interest in the sections activities, for example, at this year's Fall meeting. In San Francisco, in December, (see EOS 25 July) there will be 15 special sessions hosted by the VGP section, in addition VGP is cosponsoring at least 20 further special sessions. None of these sessions is invite-only. Therefore you are cordially invited to submit contributions to any of these sessions (don't wait for an invitation!). In addition there will be numerous general sessions. Your volunteer work as chairs of general sessions will also be warmly appreciated.

The deadline for electronic submissions is September 7. Put the meeting dates (15-19 December) in your calendar! I look forward to seeing your abstracts in September.

D. B. Dingwell
Meetings Committee Chair

CALL FOR SPECIAL SESSIONS AT SPRING 2001 AGU MEETING, BOSTON, MA

Volcanology-Geochemistry-Petrology is one of the largest sections of AGU and yet we often feel under-represented in meeting content, especially at the Spring Meeting. It is up to us, the members of the VGP section, to assure that we have a scientifically productive Spring Meeting by proposing special sessions. There are distinct advantages to proposing special sessions at the Spring Meeting: the Spring Meeting is still small enough to have effective scientific discourse (e.g. your timely and cutting-edge session will attract nearly all petrologists/geochemists in attendance!); unlike the too-crowded Fall AGU, novel formats can be used (e.g. workshops, specialized talk length and order); and this year, scheduling close to the Goldschmidt will assure more foreign attendees than usual. Please think of the type of session you would like to see at Spring AGU. Then make sure it happens by proposing it yourself or coercing colleagues to do so.

To convene a special session: contact Steven B. Shirey, Department of Terrestrial Magnetism, Carnegie Institution of Washington, 5241 Broad Branch Road, NW, Washington, DC 20015, Fax: 202 364 8726, Phone: 202 686 2560, shirey@dtm.ciw.edu. All that is needed is a brief paragraph description of the session and the names of conveners. Deadline for proposals of special sessions is October 16.

Steve Shirey
Spring AGU Program Committee Chair.

MESSAGE FROM PUBLICATIONS COMMITTEE CHAIR

Beginning July 1, a new VGP publication committee was formed, including C. Agee, NASA Johnson Space Center, N. Arndt, University of Grenoble L. Davis, Battelle Pacific Northwest National Laboratory, D. Geist, University of Idaho, M. Roden, University of Georgia, H. Shaw, Lawrence Livermore National Laboratory H. Staudigel, Scripps Institution of Oceanography (Chair: hstaudigel@ucsd.edu). The role of this committee will be to listen to the VGP community and work out means to improve AGU publications for readers and authors. The committee has begun discussing four main issues, and we hope to obtain comments from VGP members.

1. The AGU appears to be a more attractive home for VGP abstracts than for VGP science papers in its journals. What are the reasons for this discrepancy? Using more society-based journals has been an important issue for discussion, in particular in the context of the extreme costs of some journals from commercial publishers. These costs effectively limit the distribution of the top science to a few "rich" libraries. Should we, as the VGP, use more (not for profit) society-based publications?

2. AGU recently launched a new electronic journal with a focus that clearly includes VGP. G-cubed (Geochemistry, Geophysics and Geosystems) is now well on its way, with over 30 papers published since its launch at the 1999 AGU Fall meeting. The number of submitted manuscripts has passed the 100 mark. G-cubed is currently free of charge for authors and for subscribers (check out g-cubed.org; see table of contents at the end of this newsletter). All signs are that this journal will be a success. However, the first few years of publications are key to how a journal defines itself, how earth science disciplines are represented and what kind of service it will provide. It is important that the community takes part in this development, as authors, readers and critics.

3. JGR Red is the major AGU journal where VGP papers are published. Can the role of JGR be improved?

4. AGU as our main (and most powerful) professional organization does a great job at convening annual meetings, and there is a great effort in offering us service through the publication of first rate journals. In particular in the age of the electronic revolution, it appears obvious that "our" professional organization should also help us in our needs for publishing data, providing access to data and curating data. What should be the role of AGU? How should we publish data? Is the "data-brief" option of G-cubed the best way? In an electronic medium, there is tremendous potential in linking data publication to data archiving and data searches. Should AGU establish a digital archive for all data published in its journals?

Please let us know what you think.

Hubert Staudigel
Publications Committee Chair

MESSAGE FROM EDUCATION/OUTREACH COMMITTEE CHAIR

The VGP Education and Outreach Committee has been re-organized this year to facilitate what has been its main function over the past couple of years, the evaluation of student presentations at the national meetings. This enlargement of the committee will also bring in more diverse representation of the VGP community.

We are pleased to announce that "Outstanding Student Presentation Awards" at the 2000 Spring AGU meeting have been awarded to Darren Locke (Arizona State University), Lesley Rose (University of Toronto) and Marlin Saar (University of Oregon).

Another initiative of this committee has been to provide a forum for exchange of teaching materials and strategies. This year we are hoping to put together an informal gathering for those who either currently teach a class in volcanology or would like to develop such a class. If you have such an interest, please contact Roger Nielsen at nielsenr@geo.orst.edu.

Roger Nielsen
Education/outreach Committee Chair

CALL FOR NOMINATIONS FOR AGU FELLOWS FROM THE VGP SECTION: A MESSAGE FROM THE CHAIR OF THE VGP FELLOWS COMMITTEE.

Award of the AGU Fellowship is an important recognition of scientific accomplishment within the AGU and to the outside world. It is also a sign of vitality of a section within the AGU. There have been times when the VGP section was underrepresented in the Fellowship awards, although in the most recent years we have done quite well. Still, when the awards are given, colleagues often wonder why this particular new Fellow has not been AGU Fellow for many years. The only way to do justice to both our section and its scientifically most accomplished members is to present nominations of high caliber to the VGP Fellows Committee. The nominations and supporting letters should be as specific as possible about the most important scientific accomplishments of your candidate. Statements like "XYZ

has done very important work on volcanic rocks" are not helpful and will most likely be discounted by the Committee. For nomination instructions, see <http://www.agu.org/inside/fellnom.html> . For a list of all VGP fellows, see <http://www.geology.washington.edu/~agu-vgp/awards.html>. The deadline for nominations is October 1, 2000.

Al Hofmann
VGP Fellows Committee Chair

CALL FOR NOMINATIONS FOR NORMAN L. BOWEN AWARD

The N. L. Bowen Award was established in 1981 by the Volcanology, Geochemistry, and Petrology Section to recognize outstanding contributions to volcanology, geochemistry, or petrology. Special consideration is given to nominees who have not previously received a medal. The deadline for nominations is October 16, 2000. See Eos Vol. 81(30) (July 25) p.343 for further information and nomination instructions. Please send nomination packages to Professor Malcolm Rutherford, Department of Geological Sciences, Brown University, Providence, RI 02912.

As the new chairman of this committee, it was very interesting to see which colleagues had received this award over the years. At this point, I am sure many of you know someone who you think is now very deserving. Please take the step to nominate this person. At this time we have only a few nominees to consider for the year 2000. The nomination process is not very difficult. All that is required is a letter from you stating why the nominee deserves the award, a copy of the nominee's CV, and supporting letters from at least two scientists who know and support the nomination.

Look forward to hearing from you.

Mac Rutherford
Bowen Award Committee Chair.

Past Awardees:

Richard A. Yund, 1981
T.N. Irvine, 1982
Lionel Wilson, 1983
Robert C. Newton, 1984
Michael J. O'Hara, 1984
Richard V. Fisher, 1985
Edward Wesley Hildreth, 1985
H.U. Schmincke, 1985
Ian S.E. Carmichael, 1986
Fred A. Frey, 1986
John Barry Dawson, 1987
S. Ross Taylor, 1988
Alexander R. McBirney, 1990
Eric Essene, 1991
Robert O. Fournier, 1991
Bruce D. Marsh, 1993
Timothy L. Grove, 1993
Alan Bruce Thompson, 1994
Harry W. Green II, 1994
T. Mark Harrison, 1995
Frank M. Richter, 1995
Charles H. Langmuir, 1996
Frank S. Spear, 1997

Alex Halliday, 1998
Charles R. Bacon, 1999

CALL FOR NOMINATIONS FOR THE JAMES B. MACELWANE MEDAL

The James B. Macelwane Award is presented annually for significant contributions to the geophysical sciences by a young scientist of outstanding ability. Recipients must be less than 36 years old on January 1 of the year of presentation (in this case 2001). Recent recipients have included Eduoard Bard, Lars Stixrude, Ken Farley, Eric Hauri and Quentin Wiliams.

For a nomination to be considered it must include a letter of nomination outlining the nominee's significant contributions, a curriculum vitae, a bibliography, and a minimum of three supporting letters. At least two letters must be from individuals not currently or recently associated with the nominee's institution of graduate education or employment. The letter must include the birth date of the nominee, which must be 1965 or later.

The members of the VGP Section Macelwane Award Committee are as follows: Alex Halliday (Chair), ETH Zurich (halliday@erdw.ethz.ch), Bernie Wood, University of Bristol (B.J.Wood@bristol.ac.uk), Michael Garcia, University of Hawaii (garcia@soest.hawaii.edu), Larry Edwards, University of Minnesota (edwar001@maroon.tc.umn.edu), Everett Shock, Washington University in St. Louis (shock@zonvark.wustl) PLEASE NOTE that all nominations need to be sent direct to AGU. The deadline for nominations is October 16th. Packages that, on the deadline, do not meet the requirements for completeness, as outlined above, cannot be considered. The nomination package should be submitted to:

The James B. Macelwane Award Committee,
VGP Section
c/o American Geophysical Union
2000 Florida Avenue, NW
Washington, DC 20009

Further details can be found at:
<http://www.agu.org/inside/awardnom.html>

Alex Halliday
Macelwane Award Committee Chair.

STATUS OF VGP WEBSITE

The VGP website is currently undergoing reconstruction. Please check it out (<http://www.agu.org/sections/vgp/vgp.html>), and e-mail suggestions to webmaster Mark Ghiorso. One section that would particularly benefit from member input is the listing of links to members' own webpages. E-mail mann@u.washington.edu if you would like to see your site included.

UPDATING MEMBERSHIP INFORMATION

Please check your membership information. Is it up to date? Please go to the AGU home page (<http://www.agu.org/>) and follow these instructions:

Click on Member Services
Click on Members Only Services
Click on AGU on-line membership directory,
Click on View My Own Entry

mailing or e-mail address, etc. Ask your VGP colleagues to do the same so that AGU and we have up to date e-mail

addresses.

GEOCHEMISTRY, GEOPHYSICS AND GEOSYSTEMS (G-CUBED) RECENT PUBLICATIONS

Articles

- Self-consistent generation of tectonic plates in time-dependent, three-dimensional mantle convection simulations, 2, Strain weakening and asthenosphere - Paul J. Tackley
- Controls on palagonitization versus pedogenic weathering of basaltic tephra: Evidence from the consolidation and geochemistry of the Keanakako'i Ash Member, Kilauea Volcano - Peter Schiffman, Howard J. Spero, R. J. Southard, and D. A. Swanson
- Self-consistent generation of tectonic plates in time-dependent, three-dimensional mantle convection simulations, 1, Pseudoplastic yielding - Paul J. Tackley
- Partitioning of rare earth element, Y, Th, U, and Pb between pargasite, kaersutite, and basanite to trachyte melts: Implications for percolated and veined mantle - M. Tiepolo, R. Vannucci, P. Bottazzi, R. Oberti, A. Zanetti, and S. Foley
- Alteration processes of alkenones and related lipids in water columns and sediments - H. Rodger Harvey
- Evidence from ^{10}Be and U series disequilibria on the possible contamination of mid-ocean ridge basalt glasses by sedimentary material - B. Bourdon, S. J. Goldstein, D. Bourlès, M. T. Murrell, and C. H. Langmuir
- UserCalc: A Web-based uranium series calculator for magma migration problems - M. Spiegelman
- Constraining mantle density structure using geological evidence of surface uplift rates: The case of the African Superplume - Michael Gurnis, Jerry X. Mitrovica, Jeroen Ritsema, and Hendrik-Jan van Heijst
- Spatial distribution of melt conduits in the mantle beneath oceanic spreading ridges: Observations from the Ingalls and Oman ophiolites - Peter B. Kelemen, Michael Braun, and Greg Hirth
- Distribution of carbonate ion in the deep ocean: Support for a post-Little Ice Age change in Southern Ocean ventilation? - Wallace S. Broecker and Stewart Sutherland
- Identification and implications of off-axis lava flows around the East Pacific Rise - Jennifer R. Reynolds and Charles H. Langmuir
- A shallow, chemical origin for the Marquesas Swell - Marcia McNutt and Alain Bonneville
- Distinguishing melt and fluid subduction components in Umnak Volcanics, Aleutian Arc - Cornelia Class, Daniel M. Miller, Steven L. Goldstein, and Charles H. Langmuir
- H_2O and CO_2 in magmas from the Mariana arc and back-arc systems - Sally Newman, Edward Stolper, and Robert Stern
- Primitive CaO-rich, silica undersaturated melts in island arcs: Evidence for the involvement of clinopyroxene-rich lithologies in the petrogenesis of arc magmas - P. Schiano, J. M. Eiler, and E. M. Stolper
- The abundance of zinc isotopes as a marine biogeochemical tracer - Chloe N. Marechal, Emmanuel Nicolas, Chantal Douchet, and Francis Albarede
- Coccolith Sr/Ca as a new indicator of coccolithophorid calcification and growth rate - Heather M. Stoll and Daniel P. Schrag
- Age and geochemistry of basaltic complexes in western Costa Rica: Contributions to the geotectonic evolution of Central America - Folkmar Hauff, Kaj Hoernle, Paul van den Bogaard, Guillermo Alvarado, and Dieter Garbe-Schönberg

- Temporal variability of Cd, Pb and Pb isotope deposition in central Greenland snow - R. M. Sherrell, E. A. Boyle, K. K. Falkner, and N. R. Harris
- The role of a Cl-bearing flux in the origin of depleted ocean floor magmas - Roger L. Nielsen, R. E. Sours-Page, and K. S. Harpp
- Depleted Iceland mantle plume geochemical signature: Artifact of multicomponent mixing? - Barry B. Hanan, Janne Blichert-Toft, Richard Kingsley, and Jean-Guy Schilling
- Extrinsic controls on the evolution of Hawaiian ocean island volcanoes - David A. Clague and Jacqueline E. Dixon
- The $^{40}\text{Ar}/^{39}\text{Ar}$ age dating of the Madeira Archipelago and hotspot track (eastern North Atlantic) - Jörg Geldmacher, Paul van den Bogaard, Kaj Hoernle, and Hans-Ulrich Schmincke
- Melting of a complete section of recycled oceanic crust: Trace element and Pb isotopic evidence from Iceland - Catherine Chauvel and Christophe Hémond
- Variation of foraminiferal Sr/Ca over Quaternary glacial-interglacial cycles: Evidence for changes in mean ocean Sr/Ca? - P. A. Martin, D. W. Lea, T. A. Mashiotta, T. Papenfuss, and M. Sarnthein
- Implications for magmatic processes at Ontong Java Plateau from volatile and major element contents of Cretaceous basalt glasses - Peter J. Michael
- Dehydration and melting experiments constrain the fate of subducted sediments - Marie Johnson and Terry Plank
- Assessing the presence of garnet-pyroxenite in the mantle sources of basalts through combined farnium-neodymium-thorium isotope systematics - Andreas Stracke, Vincent J. M. Salters, and Ken W. W. Sims
- Crustal motion north and south of the Arica Deflection: Comparing recent geodetic results from the Central Andes - Micheal Bevis, Eric C. Kendrick, Robert Smalley Jr., Thomas Herring, Jorge Godoy, and Fernando Galban
- Isotope topology of individual hotspot basalt arrays: Mixing curves or melt extraction trajectories - Jason Phipps Morgan
- Lateral mixing and advection of reactive isotope tracers in ocean basins: Numerical modeling - Heiner Igel and Friedhelm von Blanckenburg
- Geochemistry and intrusive directions in sheeted dikes in the Troodos ophiolite: Implications for mid-ocean ridge spreading centers - Hubert Staudigel, L. Tauxe, J. S. Gee, P. Bogaard, J. Haspels, G. Kale, A. Leenders, P. Meijer, B. Swaak, M. Tuin, M. C. Van Soest, E. A. Th. Verdurmen, and A. Zevenhuizen

Data Briefs

- Chemical discrimination of Columbia River basalt flows - Peter R. Hooper

Technical Briefs

- Calibration of pressure-dependent sensitivity and discrimination in Nier-type noble gas ion sources - P. G. Burnard and K. A. Farley
- Mass spectra of sn-2-hydroxyarchaeol, a polar lipid biomarker for anaerobic methanotrophy - Kai-Uwe Hinrichs, Richard D. Pancost, Roger E. Summons, G. Dennis Sprott, Sean, P. Sylva, Jaap S. Sinninghe Damsté, and John M. Hayes
- A global geochemical database structure for rocks - K. Lehnert, Y. Su, C. H. Langmuir, B. Sarbas, and U. Nohl

Hubert Staudigel
Publications Committee Chair