February 2008
VGP Section Newsletter #31

Dear Colleagues,

Here is the first Volcanology, Geochemistry and Petrology section newsletter of 2008. This and all previous newsletters are archived at the VGP website (http://vgp.agu.org). Please respond with input and feedback to Sarah Fagents at fagents@hawaii.edu.

In this issue:

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(1) MESSAGE FROM THE PRESIDENT

*** AGU Honors**: Call for nominations

I am delighted to announce that AGU Council has approved our proposal to establish a *new VGP Award for junior researchers* (less than 7 years post-Ph.D). The Award is named in honor of ***Hisashi Kuno*** and the deadline for nominations is May 1, 2008 (see below). Please help ensure that we have a strong list of nominees.

Bowen Award. While trying to figure out whether your colleagues are sufficiently newly-minted for the Kuno Award, please remember that we also seek more strong nominations for the Bowen Award. Nominations are due by May 1 (details on the VGP website) to Richard Arculus: Richard.Arculus@anu.edu.au

Union Medals. For the outstanding colleague there is always the potential for a Union honor such as the **Hess Medal** or a **Macelwane Medal**; the deadline for all is March 15, 2008. Our section has 2 small committees charged with assisting nominations for VGP candidates. Contact:

Macelwane: *Rick Carlson (rcarlson@ciw.edu)*
Other Union Medals: *Francis Albarede (francis.albarede@ens-lyon.fr)*

*** 2008 Joint Assembly**

The 2008 Joint Assembly is being held in Fort Lauderdale from 27-30 May 2008. The abstract deadline is 5th March. There will be the usual VGP reception, awards to new AGU Fellows and the annual Daly Lecture. More details can be found at http://www.agu.org/meetings/ja08/.

2008 Daly Lecture: Named for Reginald Daly (1871-1957) the Daly Lecture is VGP's part of the AGU Bowie lecture series and is traditionally given at the Joint Assembly. As Section President I have the honor of choosing the Lecturer and I am delighted to announce that the 2008 lecture in Fort Lauderdale will be given by ***Alex Halliday*** of Oxford University.

I look forward to seeing a strong representation at the VGP reception in Fort Lauderdale.

Bernie Wood, VGP President

(2) HISASHI KUNO AWARD -- *NEW*

The **Hisashi Kuno Award** is given by the VGP Section for outstanding contributions to the fields of Volcanology, Geochemistry or Petrology. The Award is based on the quality of publications arising from work performed up to seven years past the receipt of the Ph.D. Awardees must be members of AGU at the time of nomination and within seven years of the award of the Ph.D. on Jan 1 of the year of the Award.

Nominations: Deadline May 1, 2008
The nomination file should include:
(i) a nominating letter from a colleague,
(ii) a CV for the candidate,
(iii) a list of publications for the candidate,
(iv) Up to three supporting letters.

The nomination file should be submitted electronically to the Chair of the Committee, *Jon Davidson (j.p.davidson@durham.ac.uk)*

(3) 33RD INTERNATIONAL GEOLOGICAL CONGRESS (IGC), 6-14 AUGUST 2008, OSLO, NORWAY

Website: http://www.33igc.org/ Abstract deadline: 29 February 2008

Session announcement:

EID-10: Phase transformations in the Earth's interior
Convenors: *Bernard J. Wood* (Macquarie U., Australia) and *Craig R. Bina* (Northwestern U., U.S.A.) -- From hydration-dehydration reactions in subduction zones to subsolidus polymorphism and disproportionation in the transition zone, from electronic-spin transitions in the lower mantle to polymorphism and melting relations near the core-mantle boundary, phase transformations play a major role in the Earth's interior. We encourage contributions on the analysis of phase transformations by experiment, theory, and simulation, as well as studies of their geophysical signatures and geodynamical consequences.

(4) VGP SESSIONS AT THE 2008 JOINT ASSEMBLY, FORT LAUDERDALE, FL, MAY 2730

V01 Volcanology, Geochemistry and Petrology: General Contributions -- This session provides the opportunity for contributions that fall within the broad spectrum of Volcanology, Geochemistry and Petrology.
Conveners: *Munir Humayun*, Florida State University, National High Magnetic Field Laboratory Geological Sciences Center 1800 E. Paul Dirac Drive, Tallahassee, FL 32310 USA, Tel: 850-644-1908, email: humayun@magnet.fsu.edu, and *Gerardo Carrasco*, Universidad Nacional Autonoma de Mexico, Centro de Geociencias Campus Juriquilla Carr. 15.5, Queretaro, 76230 MEX, Tel: 011-442.238.1104, email: gerardoc@geociencias.unam.mx

V02 Recent Advances in High Precision Mass Spectrometry (TIMS, MC-ICP-MS, MC-SIMS) and Their Application in Earth and Planetary Sciences -- Recent technological advances in high precision mass spectrometry (TIMS, MC-ICP-MS, MC-SIMS) have initiated a

renaissance in our understanding of Earth and solar system processes. Advances in SIMS and laser-MC-ICP-MS have extended in-situ isotopic measurements of elements in materials to the nano-scale, while bringing new capabilities for significant increases in the precision of isotopic measurements on the micron-scale. Advances in TIMS and MC-ICP-MS have resulted in higher-precision measurements using established isotopic systems as well as allowing for the measurement of isotopic compositions of some elements that have not had traditional uses before. We encourage contributions that highlight both the advancement of the technique in high precision mass spectrometry as well as their novel applications in a broad range of Earth and Planetary Science disciplines.
Conveners: *Qing-zhu Yin*, University of California Davis, One Shields Avenue, Davis, CA 95616 USA, Tel: 530 752-0934, Fax: 530 752-0951, email: yin@geology.ucdavis.edu , and *Alan Brandon*, NASA Johnson Space Center, Mail Code KR, Houston, TX 77058 USA, email: Alan Brandon

V03 Scale and Sampling of Mantle Heterogeneities -- Although mantle-derived materials now at the Earth's surface exhibit significant geochemical heterogeneity, the relationship between the distribution of the heterogeneities at the surface and the spatial distribution of heterogeneities in the mantle is unclear. For example, small-scale heterogeneities in the mantle can be smoothed by aggregating melts from a large area, or accentuated by preferential melting of a single component. This session invites contributions that investigate the length scales of mantle heterogeneities and types of processes that lead to the geochemical heterogeneities observed at the surface.
Conveners: *Shichun Huang*, Florida State University, Tallahassee, FL 32310 USA, Tel: 850 644-2263, Fax: 617-253-7102, email: huang@magnet.fsu.edu, and *Michael Bizimis*, Florida State University, USA, email: bizimis@magnet.fsu.edu, and Vincent Salters, Florida State University, USA, email: salters@magnet.fsu.edu

V04 Recent Advances Toward Getting a Hold on Quicksilver -- Considerable interest in the abundance, distribution, speciation, and pathways of mercury in the human ecosystem has developed during the decades following the Minamata Bay, Japan, disaster. The role of biological agents in mercury speciation and concentration has become recognized, albeit not fully understood. The cardinal role that the atmosphere plays in the dispersal and cycling of mercury in the ecosystem is established, but crucial uncertainties exist in the relative and absolute amounts of various sources of natural and anthropogenic emissions into the atmosphere, in atmospheric depositional rates, and in the relative efficiencies of mechanisms controlling transformations in the mercury cycle. Recent advances include the ability to impose isotopic constraints on transformation and cycling models. This session invites contributions that investigate elemental concentrations, reaction mechanisms and isotopic compositions of mercury that can be used as potential environmental tracers in understanding the global cycling of mercury.
Conveners: *William Landing*, Florida State University, Tallahassee, Fl 32306 USA, Tel: 850-644-6037, email: wlanding@fsu.edu, and *Reshmi Das*, Florida State University, Tallahassee, Fl 32306 USA, Tel: 850-321-5490, email: das@magnet.fsu.edu

V05 Linking Geophysical, Mineralogical, and Geochemical Observations with Geodynamical Modeling of Subduction Systems -- In recent years, significant progress has been made in the construction of state-of-the-art geodynamic models of subduction zones. Our understanding of the geochemical systematics of arc lavas, the metamorphic and tectonophysical evolution of slabs, tomographic imaging techniques, and other varied field observations and data

analysis methods at convergent plate margins have also experienced incredible growth. The purpose of this session is to facilitate the collaborative interpretation and corroboration of all sources of relevant data with existing and future geodynamics models of subduction system structure and evolution. We invite people from different fields connected with subduction system evolution to contribute and discuss how to integrate the available geophysical, mineralogical, petrologic, and geochemical observations in order to better constrain subduction zone geodynamic models. This session is co-sponsored by the NSF-MARGINS Program.
Conveners: *Vlad C. Manea*, UNAM, Centro de Geociencias Campus UNAM, Juriquilla Boulevard Juriquilla, no. 3001 , Juriquilla, 76230 MEX, Tel: (52-55)-5623-4116/ext. 13, Fax: (52-55)-5623-4129, email: vlad@geociencias.unam.mx, and *Chris J. Grose*, University of South Florida, Department of Geology 4202 East Fowler Ave. SCA 528 , Tampa, FL 33620-5201 USA, Tel: 813-974-1598, Fax: 813-974-2654, email: chrgrose@mail.usf.edu, and *Jeffrey G. Ryan*, University of South Florida, Department of Geology 4202 East Fowler Ave. SCA 528, Tampa, FL 33620-5201 USA, Tel: 813-974-1598, Fax: 813-974-2654, email: ryan@shell.cas.usf.edu

VGP also presents jointly with the following Special Sessions:
T04 Novel Approaches to Proterozoic Tectonics and Continental Correlations
T02 Thermo-tectonic Models of Oceanic Lithosphere and the problem of Hydrothermal Circulation - A New Look

VGP-related Union session:
U10 Physics and Chemistry of the Deep Earth -- The physical and chemical properties of Earth materials play an important role in governing structure and dynamics of the planet's interior. The aim of this session is to present the latest developments and findings in high pressure mineral physics and related fields (e.g., seismology, geochemistry, geodynamics), and constraints on the composition, structure and evolution of Earth's deep interior based on these experimental, observational, and/or theoretical data. We solicit contributions on the structure, elasticity, rheology, electric, composition, thermal and transport properties of minerals and melts, as well as geophysical or geochemical studies that inform or incorporate mineralogical properties of the deep Earth. The session's scope also includes the influence of minor elements and volatiles in the deep mantle, and light elements in the core. Contributions from young scientists and students are especially welcome.
Conveners: *Andrew Campbell*, University of Maryland, , College Park, MD 20742 USA, email: ajc@umd.edu, and *Jiuhua Chen*, Florida International University, VH-140, University Park, Miami, FL 33199 USA, Tel: 305-348-3140, email: jiuhua.chen@fiu.edu, and *Sang-Heon Shim*, Massachusetts Institute of Technology, , Cambridge, MA 02139 USA, email: sangshim@mit.edu