Swiss Society of Mineralogy and Petrology

http://ssmp.scnatweb.ch

SEVENTH SWISS GEOSCIENCE MEETING

20–21 November 2009, Neuchâtel

The 7th edition of the Swiss Geoscience Meeting was organized by the Center for Hydrogeology at the University of Neuchâtel and focused on the contribution and importance of water in the geosciences. On November 20, a large audience was present at an interdisciplinary plenary session entitled "Water across Boundaries." This plenary session was followed by an awards ceremony for various prizes and distinctions. On November 21, 12 parallel sessions covered a wide range of geoscience topics. Our Society sponsored the open session "Mineralogy–Petrology–Geochemistry," which was convened by our members B. Grobéty (Fribourg) and E. Reusser (Zürich). The 16 oral presentations and the well-presented posters attracted a significant and noticeably young audience.

2009 PAUL NIGGLI MEDAL TO ALAIN BURGISSER

Our Society is actively involved in the annual award of the Paul Niggli Medal, which is Switzerland's most prestigious "young scientist award" in Earth sciences. It is given to young Swiss scientists who have made outstanding contributions to mineralogy, crystal chemistry, petrology, resource geology, or exploration physics. The medal and prize are awarded yearly at the Swiss Geoscience Meeting.

The 2009 Paul Niggli Medal went to Alain Burgisser, a CNRS researcher at the Earth Science Institute of Orléans (ISTO), France. Alain completed his PhD in 2003 at the University of Alaska Fairbanks in physical volcanology. His research focused on degassing in volcanic conduits and the mechanics of pyroclastic density currents. He is currently leading a European project (ERC–DEMONS) whose goal is to model the quantity and composition of volcanic gases as a function of the petrology of the magma at depth and the eruptive regime. The chemical kinetics of degassing in a volcanic conduit are evaluated through a combination of experimental, mathematical, field, and numerical approaches. Natural targets include convection in the lava lake at Erebus volcano (Antarctica), a conduit-flow model of Strombolian activity at Llaima volcano (Chile), and lava-dome extrusion at Soufrière Hills volcano (Montserrat). By bridging the knowledge gap between deep magmatic processes and surface emissions, Alain and his team aim to improve the application of volcanic gas analyses to the mitigation of volcanic risk.

EIGHTH SWISS GEOSCIENCE MEETING

"Hot and Cold – Extreme Climates in Time and Space"

November 19–20, 2010

University of Fribourg

http://geoscience-meeting.scnatweb.ch

European Association of Geochemistry

www.eag.eu.com

LETTER FROM THE EAG PRESIDENT

The Earth's Future

Eric Oelkers

When putting together the 2009 Davos Goldschmidt Conference, Chris Ballentine and I debated at length what was missing from past meetings. Upon reflection, we concluded that although the Goldschmidt Conference provides an excellent forum for discussing the latest scientific advances among ourselves, we were doing little to bridge the gap between the academic community and society.

It is clear that society is facing a large number of challenges closely related to the management of the Earth. The carbon concentration of the atmosphere has been increasing dramatically over the past century; this increase has been linked by many to global warming. The combination of dwindling petroleum resources and higher demand led to a spike in oil prices in 2008. The twin concerns about global warming and increasing oil prices led to increasing biofuel production using land that could otherwise be used to produce food. Food prices rose, leading to increased starvation in many countries. As an alternative to expensive petroleum, nuclear energy has again become a popular option, reopening the question of the safety of radioactive waste storage. The price of many base metals has also risen dramatically as rumors of dwindling reserves circulate. What struck us is how central geochemistry is to resolving these large-scale societal concerns.

The Earth's Future event was initiated at the 2009 Goldschmidt conference to bring together the academic community, prominent politicians, industrialists, and scientists in an effort to close the gap between research in geochemistry and societal needs. The first Earth's Future forum featured Dr. Bill Chameides, formally the chief scientist of the Environmental Defense Fund; Dr. Veerabhadran Ramanathan, professor of atmospheric and climate sciences at Scripps Institution of Oceanography and corecipient of the 2007 Nobel Peace Prize as part of the UN's Intergovernmental Panel on Climate Change; Dr. Janet Hering, director of the Swiss Federal Institute of Aquatic Science & Technology; and Sir David King, former chief scientific adviser and head of the Government Office of Science of the UK.

Presentations and debate centered on how we can use fundamental science and improved global governance to better manage food, water, energy security, ecosystem services, disease, and climate change for the estimated 9 billion people likely to be living on Earth in 2050. A key is improved communication between the scientific community, which can provide solutions, the public, who need to better understand why and how changes are necessary, and the government, which has at times been slow to embrace scientifically based solutions. Nevertheless, some past successes have shown that these challenges can be addressed. Veerabhadran Ramanathan noted that current air pollution laws have been remarkably successful in reducing sulfate aerosols, an important greenhouse gas component. We anticipate that regular Earth's Future events will both encourage our community to focus efforts on societal issues and attract the popular press to publicize major scientific advances. For those who might have missed the 2009 event, a webcast of these presentations can be seen at www.goldschmidt2009.org/plenaryRecordings.

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