



April 2009

Los Angeles Basin Geological Society Newsletter

APRIL 23TH (THURSDAY), 2009 MEETING: DR. T. MARK HARRISON

Will speak on . . .

“Probing the Dark Age: Clues to the first 500 million years of Earth history”

Speaker Abstract

The Hadean Eon, 4.5 to 4.0 billion years (Ga) ago, is the dark age of Earth history; there is no known rock record from this period. As a result, our understanding of the growth history of continental crust is equally consistent with the planet then hosting massive early crust or essentially none at all. Without support from a rock record, our knowledge of pre-Archean (>4 Ga) continental crust largely comes from investigations of Hadean detrital zircons found in the Jack Hills region of Western Australia. We know that these ancient zircons yield relatively low crystallization temperatures and some are enriched in heavy oxygen, contain inclusions similar to modern crustal processes, and show Hf isotope evidence of silicate differentiation by 4.51 Ga.

We interpret these observations to reflect an early terrestrial hydrosphere, early felsic crust in which granitoids were produced and later weathered under high water activity conditions, and even the possible existence of plate boundary interactions – in profound contrast to the traditional view of an uninhabitable, hellish world. As virtually all researchers agree that life could not have emerged until there was liquid water at or near the Earth’s surface, a significant implication is that our planet may have been habitable as much as 600 million years earlier than previously thought. Possible scenarios are explored with a view to reconciling our growing but fragmentary record with our knowledge of conditions then extant in the inner solar system.

Speaker Biography

Mark Harrison is Distinguished Professor and Director of the Institute of Geophysics and Planetary Physics (IGPP), University of California, Los Angeles. He received his B.Sc. (Hons.) from University of British Columbia in 1977 and Ph.D. from the Australian National University in 1981. After a postdoctoral fellowship at the Carnegie Institution of Washington, he spent 8 years at the State University of New York at Albany rising to full Professor. In 1989, he moved to UCLA where he taught and from 1997-2000 served as Chair of the Department of Earth and Space Sciences. He was then appointed University Professor and Director of the Research School of Earth Sciences at the Australian National University from 2001 to 2006. He returned to UCLA in 2006 to take up his position with the IGPP.

Mark has received numerous awards throughout his career and is a member of a large number of Geophysical Societies. His research papers have received over 10,000 citations and in 2002 the Institute for Scientific Information designated him a Highly Cited Researcher. He was cited as one of the most influential earth scientists in *Notable Scientists* in 2003. In 2005 he was made a member of the Australian Academy of Science. Mark has published over 200 papers and books on a range of research topics including but not limited to the evolution of the Tibet-Himalaya orogenic system, geochemical kinetics, the origin and transport of crustal magmas, the development of geoscience applications of secondary ion mass spectrometry; and investigations of early Earth.

Meeting Time, Place, Cost and Reservations

Time:

Thursday, April 23, 2009

Typical Meeting Agenda

Lunch Served: 11:30 AM to 12:00PM
Announcements: 11:50 AM to 12:15 PM
Guest Speaker: 12:15 PM to 12:45 PM

Place:

The Grand at Willow Street Conference Center located at 4101 East Willow Street, Long Beach, CA. (562-426-0555). Take Lakewood Boulevard south from the San Diego Freeway (405), turn west onto Willow Street and turn right onto Grand Avenue at the sign for the Center. Park free in the garage structure.

Cost:


Lunch and Speaker: \$20.00 with reservations
\$25.00 without reservations
Student: FREE (Lunch and Speaker)

Meeting Reservations:

Make your reservations using our web site at www.labgs.org, by calling Marieke at (562) 624-3364., or emailing Marieke_Gaudet@Oxy.com.

Reservations made prior to Tuesday before the meeting is appreciated, but walk-ons are welcome.

WE'LL BE THERE



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Upcoming 2009 LABGS Speaker/Event Schedule

April 23, 2009 – Dr. T. Mark Harrison – Prof of Geochemistry @ UCLA will speak on “Probing the Dark Age: Clues to the first 500 million years of Earth history”. Come and hear what early Earth was really like!

May 28, 2009 – Greg Hummel and Paul Hacker will speak on “The Geology of the Pacific Crest Trail”.

If you have a speaker suggestion, please mention it to a Board member !!

OTHER EVENTS

PSAAPG 2009 Convention

May 2-7, 2009 Ventura, see www.PSAAPG.org for more details

National AAPG 2009 Convention

June 7-10 , 2009 Denver, see www.AAPG.org for more details.

The LABGS Don Clarke Award

The Don Clarke Brunton Award is given to a qualified student attending a LA Basin community college with the goal of getting an Associate degree, and enrolled with plans to pursue a baccalaureate degree in Geology or the Earth Sciences.

The Society is currently looking for a qualified applicant for the 2009 award. Check our website.

SELECTION PROCESS

The award winner is selected from candidates nominated by a faculty member at their original school. The winner is selected based on the following criteria:

- Grade point average in earth science classes.
- An enthusiastic or special recommendation from the advisor, department chair, or mentor professor

The LABGS Brunton Award

The LABGS Brunton Award is given to a qualified undergraduate student attending a four-year LA Basin College or University currently pursuing a baccalaureate degree in Geology or the Earth Sciences.

The Society is currently looking for qualified applicants for the 2009 award. Check our website.

SELECTION PROCESS

The award winner is selected from candidates nominated by a faculty member. The winner is selected based on the following criteria:

- Grade point average in earth science classes.
- An enthusiastic or special recommendation from the college advisor, department chair, or mentor professor

SEE THE WEBSITE FOR FORMS

TOTY

The LABGS Teacher of the Year (TOTY) Award nominations are open for 2009. The TOTY is a \$250 award for a teacher with 3+ years experience in K-12, who teaches at least one unit per year in the natural resources. Please see this newsletter, or our website www.LABGS.org, for more details.

Student Sponsorship

Both Halliburton and Schlumberger are defraying the cost to the Society of our students-at-the-monthly meetings program. *Students are free at all meetings.* Thank you.

LABGS Elections

A hand vote will be taken at the Next meeting Thursday, April 23rd for President Nominee Bill Long and Vice President nominee Greg Hummel. Come and make sure you are part of this democratic process.

Renew Your Annual Dues and Address Changes

The Pacific Section AAPG and LABGS operate on a fiscal year from July 1 to June 30. If you are a current member, you should have received a PSAAPG membership renewal notice last month. Please note, when you renew you are renewing for both LABGS and PSAAPG (for one low price of \$12).

If you haven't done so, take this opportunity to send in a check and update your mailing information. New PSAAPG directories are now available and will be included in your dues for the next fiscal year (the directory is one of the key benefits of joining the LABGS through PSAAPG).

LABGS T-Shirts

The LABGS T-Shirt is baaaaaaaacck!!!

These unique crafted quality white T's are emblazoned with the distinctive LABGS logo and have a great look. We now have a good selection in all the relevant sizes. But come early to buy them.

T-Shirts will sell for \$18 if you pick them up at the at The Grand at the meetings, ie this does not include shipping + handling charges.



Contact Us – The LABGS Board

President: Jon Kuespert (213) 225-5900 x 224
jkuespert@breitburn.com

Program Chair: Bill Long (213) 225-5900 x 205
William.long@breitburn.com

Treasurer: Jean Kulla (949) 500-3095
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Secretary: Marieke Gaudet (562) 624-3364
marieke_gaudet@oxy.com

OUR WEB SITE ADDRESS IS:
www.labgs.org

AAPG House of Delegates

This year the LABGS Has been given 2 delegates to the National AAPG House of Delegates. A delegate makes a 3-yr commitment to attend 2 National conventions (Denver this year). The society delegate acts on behalf of the Society to implement changes in National policy. Look for John Minch and Don Clark as LABGS representatives on the AAPG ballot coming out soon.

PSAAPG Convention

The LABGS will be sponsoring the Convention field trip to the offshore Santa Barbara channel seeps. The trip is . .

Oil Seeps and Whale Watching on Sunday, May 3.

Please be aware that we appreciate your participation.

Los Angeles Basin Geological Association
Advertising Costs 2008-2009

Newsletter and SoCal website posting:

- | | | |
|-------------------------|------------|------------|
| • Business Card size ad | \$25/month | \$230/year |
| • 1/4 Page | \$45/month | \$450/year |

Website posting only: \$20/month



The LABGS Newsletter reaches a large range of Geo-types and engineers, So Advertise and get noticed.



Vice President's Note

To all our members,

At the last meeting (March) we had as a speaker Joe Iovenitti of AltaRock. Joe spoke on AltaRock's Engineered Geothermal System demonstration Project. Thank You Joe for presenting this fascinating project to us. If you did not make it, don't miss out again.

This month our speaker on Thursday, April 23rd will be Dr T. Mark Harrison from UCLA – come and discover what Earth's early history was really like.

The above picture is a teaser for the May talk - "The Geology of the Pacific Crest Trail". The authors (circa 1977) are crossing the Bridge of the Gods, which spans the Columbia River gorge separating Oregon and Washington

Bill



Los Angeles Basin Geological Society Membership Form

Join the LABGS and become a member of the Pacific Section AAPG all for one low price of \$12.00 per year - 2 West Coast Geoscience Organizations for the price of one



Membership Benefits

- LABGS Membership
- Monthly Luncheon Meetings with Strong Technical Programs
- Pacific Section AAPG Membership
- Pacific Section AAPG Bi-Monthly Newsletter
- Discounts for PSAAPG Bookstore Publications
- Bi-Annual West Coast Geoscience Directory - *next edition 6/03*
- Networking and Social Opportunities with Fellow Geoscientists

Current Annual LABGS/PSAAPG Dues

1 Year Option = \$12.00 \$ _____

3 Year Option = \$36.00 \$ _____

Extended E-Mail Announcement List Fees

To receive meeting notices from SJGS and CGS

1 Year Option = \$12.00 \$ _____

3 Year Option = \$36.00 \$ _____

PSAAPG Foundation Contributions

B. Hacker Publication Fund \$ _____

Martin Van Couvering Fund \$ _____

Dibble Map Foundation \$ _____

California Well Sample Repository \$ _____

John Kilkenny Scholarship Fund \$ _____

PSAAPG Foundation Trust Fund \$ _____

TOTAL PAYMENT

Total Amount Enclosed \$ _____

Essential Member Information

Last Name _____

First Name _____

Middle Initial _____

E-Mail Address _____

Mail Address _____

Res or Bus ? _____

Additional Directory Information

Employer _____

Position / Title _____

Bus Phone # _____

Res Phone # _____

Fax Phone # _____

Spouse's Name _____

Education *Highest Degree* *Year*

School _____

Signature _____

Annual membership is handled through PSAAPG and runs from July 1, through June 30. If you are already a current member of PSAAPG and you selected LABGS affiliation you are already a member of the LABGS.

**Please Make Checks out to PSAAPG and mail along with member form to:
PSAAPG P.O. Box 1072, Bakersfield, CA 93302**