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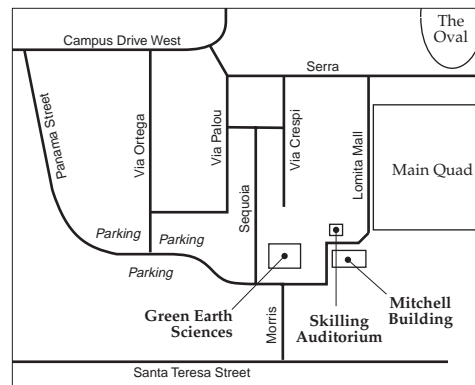
A Joint Meeting with the Bay Area Mass Spectrometry (BAMS) Another SHRIMP on the Barbie: Geological Applications of the SHRIMP RG

Dr. Trevor Ireland



The Sensitive, High-Resolution Ion Microprobe (SHRIMP) allows in situ isotopic analyses of solid targets on a microscale. A primary ion beam of oxygen or cesium is focused onto the surface and erodes the sample with a small fraction of sputtered material becoming ionized. The analysis of geological materials is complicated by the presence of a wide variety of molecular isobaric interferences which differ only slightly in mass from the atomic species. Ion microprobes utilize high mass resolution mass spectrometers to enable resolution of interfering species. The SHRIMP RG, operated on a collaborative basis between Stanford University and the US Geological Survey, brings unprecedented mass resolving power enabling tasks that have hitherto been very difficult. Applications of the SHRIMP RG so

far include analysis of extraterrestrial materials for evidence of short-lived radionuclides in the solar system, U-Pb geochronology of complexly (age) zoned U bearing minerals, and trace element analyses of materials as varied as otoliths, clay in coal, refractory inclusions in



meteorites and other geological materials. Information about the SHRIMP instrument can be found at <http://shrimprg.stanford.edu>

continued on next page

November Dinner Meeting

Date: November 18, 1999

Social Hour: 6-7pm, Mitchell Building, Stanford University

Dinner: 7-8pm, Hartley Conference Room, Mitchell Building

Talk: 8-9pm, Skilling Auditorium (All are welcome)
Trevor Ireland, Director of the Sensitive, High-Resolution Ion Microprobe

Tours: 9pm, Green Earth Sciences Building (In groups of 10)

Menu: Tender Mushroom-baked Chicken, Fresh Salmon, Vegetarian Baked Eggplant, Hearty California Green Salad, Rice, Boysenberry-Raspberry Cobbler, Chocolate Pudding Cake, Coffee and tea

Cost: \$25 per person, *Reservation by November 15*

Reservations: Shirley Radding email: sradding@att.net
(Preferred method of contact)

Phone: 408 246-2564 Fax: 408 296-8625

Caller should state name, company affiliation and whether they are members of ACS, BAMS or both. There will be a limit of 60 people for dinner, but we can accommodate up to 100 for the talk. People do not have to attend the dinner to hear the talk. Reservations will be taken on a first-come, first-serve basis.



and http://rses.anu.edu.au/rses/Probe/Ion_Probe_website.html web sites.

Dr. Trevor Ireland received his Ph.D. from the Australian National University, Canberra, Australia in Isotope Geochemistry in 1987. His thesis title was Isotopic compositions and systematics of refractory inclusions from carbonaceous chondrites. His work has taken him to Otago University, Dunedin, New Zealand; McDonnell Center for the Space Sciences Washington University, St. Louis; Max-Planck Institut für Chemie, Mainz, Germany; The Australian National University, Canberra, Australia; University of California, Los Angeles; and finally, to Stanford University where he currently an Assistant Professor in the Department of Environmental and Geological Sciences and the Director of the SHRIMP facility. His professional interests include chemical and isotopic systematics of refractory inclusions in carbonaceous chondrites, isotopic systematics of interstellar dust, zircon U-Pb



geochronology, cosmochronology, geology and geochronology of New Zealand, Antarctica, and Australia.

Chairman's Message

By the time you will be reading this message our program "Inventors Make a Difference" day at Intel would have been completed. Considerable effort had been put into it especially by Dr. Howard Peters, who was responsible for conceptualizing the idea as well as its implementation. Next month's issue will contain the details of the day as well as some photos. The very important messages we hope were driven home to the public were that inventors are real people and how much does chemistry contribute to our every day life.

The news from the National ACS is that they would like to have the Sacramento trip and the meetings with the California legislators an annual event. If you missed the trip last April, try to make plans to participate next year. Plans and date are still in the planning stage. Since California is a major factor in

the national political and economic equation, ACS is focussing very hard on our state. All those who participated in the April 23, 1999 trip stated that it was a fun experience worth repeating.

Students' Affiliates, mark your calendar. The year 2000 ACS National meeting will be in San Francisco between March 26 and 31. The ACS will provide you with an outstanding opportunity to attend the meeting for free and earn \$7.00/hour by helping with some of the Society's administrative tasks. The number of positions available are limited and shared with the students of the California Section. If you are interested, please drop me an e mail at esp@value.net or call me at 925-449-2664 to have your name on the list.





Editor's Column

This month we are having a joint meeting with BAMS. This is therefore a good time to point out other chemistry groups in this area. We regularly post information about BAMS and the Northern California Pharmaceutical Discussion Group on the local calendar on our web site. These two organizations can be reached directly at:

Northern California Pharmaceutical Discussion Group

<http://www.ncpdg.org/>

and

The San Francisco Bay Area Mass Spectrometry (BAMS) discussion group

<http://www.bams.org/>

If there are other groups or organizations that merit listing please send me an e-mail.



Missed Newsletters

Are you having problems receiving your newsletter on time? We have tried everything we can to get the post office to deliver them in a timely fashion. Maybe, if we all complain to the same place at the same time, we might get noticed. I'm not promising that we would, but I do think it might be worth a try.

Write or Fax the Postmaster General in Washington, D.C. (Fax: 202-268-5211 or mail to: Postmaster General, Washington, D.C. 20066) Tell him you have paid to receive the newsletter in a timely fashion so that you can attend our monthly meetings, but the delivery rate is so poor, the newsletter often arrives after the meetings.

Just maybe, this will work.

Shirley B. Radding

2994 Cottonwood Court
Santa Clara, CA 95051-6111

408-246-2564

Fax: 408-296-8625
e-mail: sradding@att.net

LITERATURE SEARCHES





SANTA CLARA VALLEY SECTION
 AMERICAN CHEMICAL SOCIETY
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NOVEMBER 1999 NEWSLETTER TOPICS:

- Another SHRIMP on the Barbie: Geological Applications of the SHRIMP RG
- Chairman's Message
- Missed Newsletters
- Editor's Corner
- CHEMPLOYMENT ABSTRACTS**

Time Value!



<http://www.scvacs.org>

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Newsletter Editor

Steven Colby 650-938-4502
 e-mail: colby@sisweb.com
 Web Site: www.sisweb.com

FUTURE MEETINGS

1999	
Nov 18	SCV Dinner Meeting
2000	
Mar 26-31	National ACS Meeting

For the latest information, please visit the
 SCVACS Web Site: <http://www.scvacs.org>

CHEMPLOYMENT ABSTRACTS

Shirley B. Radding, Director
 Phone: 408-246-2564 FAX: 408-296-8625
 e-mail: sradding@att.net



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