

# Surf Sci News

A Newsletter of the Surface Science Division of the CSC/CAP

December 1990

Vol. 3 No. 3

## A Word from the Editor

This is the first issue of *Surf Sci News* which has not been put together by its founder, Tom Jackman. On behalf of the Surface Science Division I would like to express our sincere gratitude to Tom for the *exceptional* job he did as Secretary/Treasurer. Of course, he didn't do the job single handedly, and we should also thank Peter Dawson at NRC for absorbing the publication charges of the newsletter and Jenny Jackman who probably should have been listed as co-editor. I would personally like to thank Tom for making the transition into my new job so smooth. He has set standards up to which it will be very hard to live. We should also thank the other members of the executive who, with Tom, have worked hard over the last few years to get the Surface Science Division back in order.

I hope to see all of you at Surface Canada '91 in May (see below for details). Until then, let me know if you have any questions or comments.

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## The President Speaks from Down Under

Hello from below! As the middle of my three-year term on the Surface Science executive, this is my year as chairman... and it is also my sabbatical year, which I am spending in the Electronic Materials Engineering Department, the Australian National University in Canberra, Australia. It is a good thing for us that our division is strong and well represented, thanks to our capable secretary (Tom Ellis), past chairman (Sid Ingrey), and vice-chairman (Royston Paynter). In fact, this is as good a place to start as any, since it was not long ago that our division was *not* so "sparkling", and a strong vote of thanks is due to the previous administration (chairman Sid Ingrey, and secretary Tom Jackman) whose extraordinary efforts brought us things like a balanced budget, a successful Surface Canada meeting in 1989 at the University of British Columbia, and the institution of this News Letter which helps to keep us all informed and together. And no, I don't think it's true that your name *has* to be Tom to become the division secretary, but statistically it would seem that is a high qualification!

This is a big year for surface jockeys... actually, I would like to come up with a way (a better name?) for more accurately describing the activities of our membership. Our research, both academic *and* industrial, is now fairly evenly distributed between the "near-surface" topics of surfaces, thin films, *and* interfaces. Any ideas?

But to continue, this is a year in which we are seeing lots of expansion in Canadian university-based surface science, as laboratories from relatively new appointments (last 3 or 4 years) are being funded and in some cases beginning to produce results. In this list is Dan Thomas, at Guelph, who is building a UHV STM

system, David Venus at McMaster who is putting together spin-polarized LEED, Peter Piercy at Ottawa who is putting together a high resolution LEED system, and David Harrington at U.Vic. who is putting together a UHV electrochemical growth and analysis system. It is also a good year for university/industry collaborations, with the recent award of the federal network CEMAID (Centres of Excellence for Molecular And Interfacial Dynamics), and the SSOC (Solid State Optoelectronics Consortium), both of which include several of our members as principal investigators or active participants.

Finally, it is a good year for visibility. We have an exciting program lined up for our next "Surface Canada" meeting this spring, which is described elsewhere in this news letter. In addition, I have just completed (with the input of many, and the capable assistance of our past and present division secretaries) an article for Physics in Canada, highlighting a few of the activities of our division and its membership. As a division, we have a lot to look forward to!

But now, the real question... why would I come to Australia for science? It certainly couldn't be for the weather! And it would seem odd to come all this way simply for the extensive accelerator and analysis facilities, all of which have lots of user-time available. No, the real reason is to see whether or not the water really does go anti-clockwise down the bathtub drain! And you know what? I'm still not sure! I think another 7 months ought to just about do it!

BFB (bye from below) Peter Schultz

## Conferences

### 1) STM Workshop '91, May 27, 1991, Trent University

A workshop on Scanning Tunneling Microscopy (STM) and Scanning Force Microscopy (SFM) will be held in conjunction with Surface Canada '91. Detailed information can be found in the flyer which accompanies this newsletter.

### 2) Surface Canada '91, May 28-30, 1991, Trent University

The 13<sup>th</sup> Canadian Seminar on Surfaces will be held at Trent University in Peterborough from Tuesday through Thursday, May 28-30, 1990. The second announcement and **final call for abstracts** is included with this newsletter. The abstract submission deadline is **January 18, 1991**.

The conference is intended to provide a forum for topics of current interest in surface science, both of fundamental and applied nature. In particular, electrochemical and organic polymer/biological interfaces will be highlighted this year along with sessions devoted to more traditional topics in kinetics, dynamics and structure. The conference does not have parallel oral sessions and ample time is left for poster viewing. The atmosphere is intended to be relaxed to encourage discussion and interaction both during the formal sessions and afterwards. As always, student participation is especially encouraged, as part of the J.P. Hobson Award competition.

For those who are not familiar with Trent University, Peterborough is situated in the heart of the Kawartha Lakes tourist district, 130 km from Toronto. It lies on the Trent Canal system between Lake Ontario and Georgian Bay, and is close to Laing Pioneer Village and the rock carvings of Petroglyph Provincial Park.

An Equipment Exhibit will once again be part of the conference. Any companies who wish to participate should contact:

Ross Underhill  
Alcan Research & Development Centre  
P.O. Box 8400  
Kingston, Ontario  
K7L 5L9

Tel: (613) 541-2059  
FAX: (613) 547-6401  
E-mail: underhill@alcanktn

**3) 74th Canadian Chemical Conference, June 2-6, 1991, McMaster U.**

There are several symposia which will be of great interest to our division members. David Venus, on behalf of the Surface Science Division, has organized the Surface and Interface Symposium. It will be composed of 4 one-half day sessions entitled:

- i) Surface Spectroscopies (joint with the "Chemical Applications of Synchrotron Radiation" Symposium.)
- ii) Reaction Dynamics at Surfaces (joint with the "Molecular and Interfacial Dynamics" Symposium.)
- iii) Advances in Vapor Phase Synthesis of Electronic Materials (joint with the "New Materials" Symposium.)
- iv) Molecular Dynamics at Surfaces (joint with the "Molecular and Interfacial Dynamics" Symposium.)

Details of other symposia and the abstract form are in the October issue of Canadian Chemical News. The abstract submission deadline is **January 15, 1991**.

**4) 1991 CAP Congress, June 16-19, 1991, University of Manitoba**

Ken Standing is organizing a symposium on the desorption of atoms and molecules from surfaces. For more information he can be contacted at (204) 474-9358 or standing@uofmcc.

**5) Workshop on Physics of Nanostructures, Aug. 12 - Sept. 13, 1991**

The Institute for Microstructural Sciences of the NRC is hosting a Workshop on Physics of Nanostructures. It reflects some of the current research endeavors of the IMS and is sponsored by the NRC to celebrate the Council's 75th anniversary. There will be formal presentations but informal interactions will be emphasized. It is expected that at any given time there would be about fifteen invited participants in addition to other visitors and the resident staff of the NRC. A limited number of places, available on a first come basis, will be made available for interested participants who are prepared to spend at least a week at the workshop. No registration fee will be charged but no financial support is available. For more information contact:

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## 6) Surface Canada '93

Yes, it's time to start thinking about 1993! Anyone who is interested in hosting the next meeting should contact me (Tom Ellis) as soon as possible. Surface Canada is the single most important activity of our division, so please give this matter serious consideration.

## Careers

In the future, anyone who would like publicize a postdoc, research associate, technician or faculty position, please send a short description of the post (a few sentences) to me, and I will include it in the newsletter. It can be sent by mail or FAX, but e-mail would be best for me.

## News Shorts

In this section I would like to present short news items which are of interest to our membership. I have in mind such things as new faculty or research appointments, special awards, major new experimental facilities, etc. Please help make this work, by sending me suggestions and/or your own news item.

-Prof. C. (Chuck) Mims has been awarded an NSERC Industrial Chair in the Department of Chemical Engineering at University of Toronto. He was formerly at Exxon Research and Engineering in Anandale, N.J. Prof. Mims is currently setting up his laboratory which will include a laser induced desorption/Fourier transform mass spectrometer apparatus for studying surface dynamics.

-Prof. Dennis Salahub at Université de Montréal has been awarded a Killam Fellowship for 1990/91.

-The Centre of Excellence for Molecular and Interfacial Dynamics (CEMAID) was officially born on November 1, 1990. One of the three central projects of the Centre is entitled 'Dynamics at Surfaces and Interfaces', involving 22 research groups at 9 Canadian universities.

## E-mail addresses

Most of you are, by now, enthusiastic users of electronic mail. In order to facilitate communications between division members, I will periodically publish a list of e-mail addresses. If you would like to be included in this list, please send an e-mail message to me at [ellis@cc.umontreal.ca](mailto:ellis@cc.umontreal.ca). If for any reason you have trouble with this address, then try [ellis@umtlvr.bitnet](mailto:ellis@umtlvr.bitnet).

## Surface Science Directory

I trust that everyone was suitably impressed by the Surface Science Directory that Tom Jackman published with the last newsletter. Quite a few people have already asked to be included in the next edition, which will be published in the new year. Don't miss out! Send in the enclosed form now, before you forget. Also, if you were in the first edition but you now have some updated information, send it along to me.

**The Executive**

The coordinates of the Surface Science Division Executive for 90/91 are given below. Feel free to contact any one of us.

**Chairman:**

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Australian National University  
Canberra, Australia

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**Secretary/Treasurer**

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**In closing...**

It is up to you to keep our division strong. Now is the time of year to make sure that you have not forgotten to renew your membership to the CIC and/or CAP. Don't forget to check off the "Surface Science" box on the renewal form. This will also ensure that you will continue to receive *Surf Sci News*. Why not also take a moment to tell your students and postdocs about the CIC/CAP. Student memberships are very inexpensive. This would be a great way of ensuring the health of the division in years to come. They can fill out the form at the back of the newsletter and I will send it along to the societies. This also applies to all of you who have let your membership lapse or have never taken the plunge.

I remind you that you can also join the division as an adjunct member. Finally, if you are not able to join the division at this time, I will try to keep you on the newsletter mailing list anyway, as long as this does not overtax our resources. I have included a form at the end of the newsletter which lists the various options.

Best wishes to all in '91.

## Surface Science Directory '91

If you were not listed in the 1990 directory, or the information is out of date, please complete the following:

Name: \_\_\_\_\_ Position: \_\_\_\_\_  
Address: \_\_\_\_\_ Telephone: \_\_\_\_\_  
\_\_\_\_\_ FAX: \_\_\_\_\_  
\_\_\_\_\_ E-mail: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Research Experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Research Keywords: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CAP, CIC or adjunct member? \_\_\_\_\_

Please send to:

Tom Ellis  
Département de chimie  
Université de Montréal  
C.P. 6128, Succ. A  
Montréal, Québec  
H4B 1L2

Tel: (514) 343-6910  
FAX: (514) 343-7586  
e-mail: [ellis@cc.umontreal.ca](mailto:ellis@cc.umontreal.ca)

## For non-members of the Surface Science Division

If you are not a member of the Surface Science Division but would like to continue to receive Surf Sci News, then please fill out this form:

I would like to become a member of the division by joining the  
   Canadian Association of Physicists  
   Chemical Institute of Canada  
(check one or both, since joint membership is available)  
Please send me the appropriate application forms.

I would like to become an adjunct member of the division for 1991.  
I enclose a cheque for \$15 made payable to 'Surface Science  
Division'.

I cannot join the division at the moment, but please try to keep my  
name on the mailing list.

Please fill out the information on the Surface Science Directory form on  
the other side of this page and send it to:

Tom Ellis  
Département de chimie  
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