

Foreword

This issue of MMM contains the invited and contributed papers from the Tahoe Workshop on EELS, held at the Granlibakken Conference Center at Lake Tahoe in California in August 1990. The workshop immediately followed the International Congress on Electron Microscopy held in Seattle, and was attended by 101 scientists from 16 countries.

A scientific workshop needs to satisfy three conditions if it is to be remembered as really outstanding: it should happen at a time when important new results have just become available in its field, it should be attended by the people who are likely to push the field further forward, and it should be held at a place that is both relaxing and stimulating. The Tahoe workshop was fortunate in that it fulfilled all three conditions, and was considered a great success by all who took part in it.

The format was that of an informal workshop with talks, posters, and organized discussion filling only a part of each day, and the rest of the time available for informal discussions and recreation. Originally it was planned that there would be no written proceedings except for the collection of the abstracts of the talks handed to each participant on arrival.

As I began to collect the abstracts for the workshop in the spring of 1990, however, it became obvious that a major event in the history of EELS was in the making. In June 1990 I therefore sent an invitation to all the authors of oral and poster contributions to also submit a written paper. Approximately two thirds complied with the request, some so efficiently that they handed their written paper in on the first day on the workshop. The present proceedings are the result.

The workshop scientific program was organized by a committee consisting of Phil Batson, Ray Egerton, Ondrej Krivanek, Mike Kundmann, Richard Leapman, and Peter Rez, who are collectively responsible for the direction the workshop took. The local arrangements were made superbly by Pat Swann and Anne Miller of Gatan, and Mary Brown and Bill Parson of Granlibakken. They included a Mozart opera performed after dinner on the opening night, a boat ride on Lake Tahoe which saved a couple of canoeists who capsized in the middle of the lake, a Mexican fiesta night, and a dinner at the top station of the Squaw Valley aerial tram at 8200 feet elevation, with a view of the lake 2000 feet below. Our thanks go also to Daniel Ray of Gatan who took care of the projection equipment, to Pete Burgner, Sander Gubbens, Mike Kundmann, Joe Mulqueen, and other staff members of Gatan, who helped with the many tasks that come up when a workshop is being organized, and to Peter Swann for making it all possible in the first place. We are also heavily indebted to the editor of MMM, Christian Colliex, whose help with the proceedings and encouragement throughout have been invaluable.

The workshop was wholly sponsored by Gatan Inc. It is no secret that Gatan is very much involved in EELS, and that helping to advance EELS is one of Gatan's goals. Some might object to such an intermixing of commercial and scientific interests, but I personally hope that the workshop proved that good science can benefit from exchanges with and support from private industry just as much as from interactions with a governmental bureaucracy.

The scientific content of these proceedings should be allowed to speak for itself, but I would

like to comment on two of the trends that emerged at the workshop. The first one was the international nature of EELS. At most scientific meetings held in the USA, the majority of the participants come from the host country. But at the Tahoe workshop, two thirds of the participants came from outside the USA. The second one was the increased contact with other spectroscopies that the workshop promoted, particularly with X-ray absorption spectroscopy, represented at the workshop by George Sawatzky and Joachim Stöhr. Each side learned a lot from the other. The experience has even lead Sawatzky to write a guest editorial in Ultramicroscopy in which he calls for further exchanges, very much in line with the original hopes and desires of the Tahoe workshop organizing committee.

A worthwhile event deserves a repeat performance. It should not come too soon, otherwise there might be nothing new to talk about, but it should come nevertheless. A satellite workshop on EELS following the 1994 ICEM to be held in Paris might be ideal, and Gatan wishes to encourage all concrete proposals as to where and in what form it should take place.

The proceedings are dedicated to the memory of Xudong Weng, who died in a traffic accident in Italy while attending a scientific conference this winter, and whose joint paper in these proceedings is a testimony to the tragically unfinished promise he held for science.

Ondrej L. KRIVANEK