

Report on the European Materials Research Society 2004 Spring Meeting

Name of Participant: Almira Briones Cruz
Conference Name: European Materials Society 2004 Spring Meeting
Conference Place: Strasbourg, France
Date: May 24-28, 2004
Number of Participants: 1800

Background on the conference and the organization:

The European Materials Research Society (E-MRS) held its annual spring conference in Strasbourg, France last May 24-28, 2004. The E-MRS is a non-profit scientific association founded in 1983, which focuses on creating the synergy between interdisciplinary, innovative technologies, diffusing and exchanging information and promoting technology transfer from public institutions towards industry. Its main objective is to promote and enhance the efficiency of research in European countries in the field of Advanced Materials; in addition, to give quick information on the development of science and technology in their area in the rest of the world, through the links with other MRS societies belonging to the International Union (IUMRS). This year's conference program includes 21 symposia running in parallel with a good balance from fundamental and applied R&D&T with medium and short-term perspectives. During this year's welcome address, the society's president informed the crowd that attendance reached up to 1,800 people, signifying the extent and size of this conference.

Facts and impression of the conference:

Among the different symposia present, our research was submitted for consideration in symposium G - Current Trends in Nanoscience — from Materials to Applications. This symposium emphasized the areas where the nanoscale (1-1000nm, i.e., submicron) leads to new ideas, including excitation and dynamic behavior, or exploits in new ways the complementarity of hard and soft matter, or a mixture of biological and physical sciences, or builds on new tools, such as scanning probe methods. The symposium concerned systems and with materials components whose structures exhibit novel physical, chemical, and biological properties. The symposium started on May 25 and ended on May 28. The daily attendance for both the oral and poster sessions varied from about 30 to 50 people. The total submitted presentations (oral and poster combined) reached about 150. This includes the sessions that were combined with symposium F.

The title of the research presented is "Studies on the Effect of UV Irradiation on Mn-Doped ZnS Nanoparticles". It was accepted as an oral presentation and was accomplished on May 25, 2004, in the second session for the afternoon. The presentation was for 15 minutes, with the last three minutes reserved for questions and discussion.

Among the interesting talks presented in the symposium G included an invited talk on "The Growth of High Quality Single Wall Carbon Nanotubes and their Application in Top gate and Side Gate Transistors" by a researcher from Cambridge. He talked about the synthesis of single walled nanocarbons as opposed to multiple walls, its advantages and possible uses as transistors. This was particularly informative for me because it presented not only the method of making nanotubes but also how to apply it. Another interesting talk focused on the advancement in the fabrication of 1-dimensional nanostructures. The speaker was from the Indian Institute of Science and she discussed the different methods used in producing nanostructures, from solution-based methods to templating, both physical and chemical methods. A special focus in the synthesis of ZnO nanowires was made. Another talk focused on the influence of device architecture on the properties and performance of photovoltaic devices, noting that changing the architecture, by changing the concentration gradient of the materials (mixed gradient method), provided better quality photovoltaic devices.

Overall, I would judge the symposium to be a success. Although a number of presenters were unable to make it to the conference (both for the oral and poster presentation), a large number of the presenters showed up. The variety of topics presented made for good listening and good discussion. It can be noted that a large number of the topics dealt with nanoscience and nanotechnology, not just in symposium G, but in other symposia as well. In the plenary session (conducted Wednesday morning), one of the speakers discussed the industrial application of carbon nanotubes, but part of his discussion could also be applicable to other materials, particularly his caution to avoid unrealistic applications and focus research on those that can be realistically achieved.