

ESF RESEARCH CONFERENCES

Rapporteur Report

Partnership:	ESF-LFUI
Conference Title:	Charge Transfer in Biosystems
Dates:	17-22 July 2011
Chair:	Rosa Di Felice
Rapporteur:	Dr Dimitra Markovitsi

General Comments

Any general comments you might have concerning the conference, your role, the scientific area covered by this conference, etc.

The scope of the Conference was to bring together theoretician and experimentalists studying charge transfer in biomolecules in solution and in nano-junctions, to assess the state of the art in the field in terms of methods and knowledge. I was an invited speaker, who came to this field rather indirectly without having focused my activity on charge transfer. From my personal point of view, the conference was particularly appealing because it provided me with a panorama of the discussed mechanisms and open questions.

Quality of Scientific Programme, Presentations and Discussion

Comments on the balance and scope of the scientific programme, the scientific quality of the presentations and discussions.

All the presentations were of high scientific level. In particular, the invited speakers presented a critical overview of the results and insisted on the difficulties in their approach. There was a good balance between talks on experimental and theoretical work. An important part of the discussion was dedicated to understand the source of disagreement between predictions of theoretical models and experimental results, or even between different types of experiments. The assumptions made in such type of approach, as well as different processes underlying the observables, were carefully searched for.

Informal Networking and Exchange; Atmosphere

Was the schedule and the atmosphere conducive to an easy exchange of information? Was there time and space for an informal discussion? Were younger researchers integrated?

The atmosphere was quite friendly and quite appropriate for informal discussions and fruitful exchanges. The young researchers participated actively and extensively discussed with senior scientists. The time dedicated to the lectures and discussions within the conference hall was slightly too long.

Balance of Participants

Was there an appropriate balance between young and senior participants? Was a balance of national groups and researchers from different (sub)fields achieved?

Several PhD students, post-docs and young academics presented oral talks. Many more had poster presentations. In the discussion which took place at the end of the meeting, as well as in the discussions at the end of each session, the young participants expressed largely their point of view. They underlined the importance of tutorials as a good introduction to subfields with which they were not familiar.

Participants came from 27 different countries; in addition to Europe, America and Asia were represented. A good number of female speakers were also noticeable. Finally, there was quite a balance between theoretical and experimental approaches and also among the groups that work on statistical ensembles and on single molecules.

Outlook and Future Developments

Will new collaborations emerge from this conference? (How) could the conference outcomes be utilized further? Are there suitable (ESF) programmes or instruments to further the work of the conference?

During the general discussion that took place at the end of the conference, it appeared necessary to have a second ESF meeting on the same topic. Before this second meeting, some preparative work, focused on the most controversial aspects that emerged during the discussions, was planned. Taking into account the excellent work made by the conference chair, the participants suggested unanimously that Rosa Di Felice chairs also the future meeting assisted by two new co-chairs, one experimentalist and one theoretician.

The idea of a COST Action on topics related to the conference also emerged in various discussions and will most likely be pursued.

Follow-up

What immediate and long term follow-up would benefit collaborations and dialogues that may have begun at the conference?

My impression is that the follow up will be on three different levels:

1. Simple information about of studies, related for example to the infra-red or fluorescence spectroscopy, that were ignored by the “official” community identified as working explicitly on “charge transfer in biosystems”. The conclusions and methods of some “marginal activities” will be certainly taken into account and, possibly, lead collaborations on a longer term.
2. Immediate two-part collaborations. These concern both different experimental or theoretical approaches and theory/experiment combinations.
3. The formation of task groups which will examine in a systematic way the “hot” questions and apparent controversies.

Organisation and Infrastructure

Were venue, catering and accommodation appropriate for this conference? Were participants satisfied with the on-site administration and support?

The venue was very pleasant. The bad weather, which could be considered as a handicap for this time of the year, had a positive effect regarding the presence of the participants in the lecture hall or the discussions places. Accommodation was good and so was catering – although some more vegetables and fruits in the menu would have been welcome. The personnel were very helpful and highly efficient.

Summary & Overall Assessment

Was the conference successful; were its aims achieved?

There is no doubt that the conference has been fully successful. The dialogues that have been engaged in order to resolve the existing controversies in the current description of the examined phenomena are very promising. In particular, the dynamics created in the perspective of a second meeting on this topic will certainly contribute to overcome important conceptual and technical barriers.

About ESF Research Conferences

The Scheme

This conference is part of the European Science Foundation's (ESF) Research Conferences Scheme. The Scheme aims to promote scientific excellence and frontier level research throughout Europe and the rest of the world. Conferences aim to provide leading scientists and other participants, including young researchers, with a platform to present their work, to discuss the most recent developments in their fields of research and to network.

Conference Format

The core activities should be based on lectures by invited speakers, who are leaders in their respective fields, followed by extensive discussion periods. An informal exchange of ideas, both inside and outside the lecture room, should be encouraged, and the number of sessions in the daily timetable should be limited in order to allow sufficient time for interaction between the participants. Time should be reserved for a 'Forward Look Plenary Discussion' about future developments in the field.

Participants can take all their meals together to encourage further contact and networking, which can be particularly beneficial to younger researchers who may be less outspoken in the formal lecture room setting. In order to gain optimum benefit from the conference, both the speakers and the participants are asked to stay for the whole duration.

Division of Tasks

The Conference Chair is responsible for ensuring the quality of the scientific programme through the selection and invitation of speakers, and through the selection of participants.

The ESF Conferences Unit is responsible for managing all the logistical aspects of the conference organisation, including the provision of an on-site secretariat.

Further information: www.esf.org/conferences