

Editorial

Another fine and warm week at the end of September greeted delegates to the Fifth Grove Fuel Cell Symposium at the Commonwealth Institute in London. This year, an innovative Executive Seminar, designed as a fuel cell awareness exercise for decision-makers, preceded the main event, during the afternoon of Monday, 22nd. Around 140 delegates, together with a further 30 guests including representatives of the Press, heard five papers describing the pollution issues, future roles for fuel cells and an important announcement concerning the co-operative venture between Ballard and Daimler-Benz to market fuel cell vehicles. That evening, Mrs. Eryl McNally, MEP, provided a stirring introduction to the Grove Medal Address from Firoz Rasul, who accepted the medal on behalf of the whole Ballard team.

The main symposium, on the theme of 'Investing in a Clean Future' commenced on the Tuesday, 23rd with the assembling of around 320 delegates from 25 countries, a total of 420 attendees, including, exhibitors, Press and support staff. Sessional themes over the next three days comprised investment approaches by users and producers, demonstration programmes together with progress updates, lessons learnt and future plans, key developments in the technology, and ending on Thursday, 25th. with consideration of innovative design and manufacturing for fuel cells. Throughout the meeting around 60 poster were on display; three prizes were awarded by the Grove Committee for the best ones. The winners were invited to provide short verbal highlights of their work during the Wednesday afternoon.

Collected here are 58 full papers and two abstracts representing a substantial portion of the work described both in the formal presentations and posters from the seminar and the symposium. As editor, this provides an ideal opportunity to thank the authors and their referees for their helpful and patient co-operation and assistance in compiling this special issue to the tightest of deadlines. In particular, the support of fellow Grove Committee members deserves a special mention, as it was to them one turned when problems arose. Thanks are also due to the Elsevier teams in Oxford for their organisational skill and in Lausanne for their co-ordination of the publishing process.

Finally, a word on nomenclature as it affects polymer membrane fuel cells. I have requested authors and desk editors to accept both the SPFC and PEM acronyms to describe these cells: SPE may NOT be used – it is a registered trademark of GE/Hamilton Standard. However, for both consistency and accuracy, I have asked that PEM be taken to mean 'polymer electrolyte membrane', alone. At best, for PEM to mean proton exchange membrane could be misleading, as it implies a mechanism; at worst, it is simply wrong! Research suggests that the propagation of the protonic field along the polymeric perfluorosulphonic acid chain in this aqueous, acidic environment owes more to quantum tunnelling than hard-sphere site interchange. As such, the conduction process would better be described in terms of wave mechanics, through the duality. Whilst it is useful to measure apparent transport parameters for protons in these membranes, for the moment, this might best be regarded as an operational convenience. I trust that most authors can accept this decision; hopefully, other editors will follow suit.

David G. Lovering
Grove V Special Issue Editor and Technical Consultant to the Grove Fuel Cell Steering Committee,
The David Graham Consultancy, Faringdon, SN7 7EY, UK,
(www.geocities.com/capecanaveral/hangar/1746)