Delft, Netherlands, August 28–September 1, 2016

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Electrochromic materials are able to change their optical properties reversibly upon the application of a DC voltage or current. The field of electrochromics spans a large and diverse class of materials, including metal oxides, metal hexacyanometallates, metal hydrides, viologens, conjugated polymers, transition-metal complexes and polymers, just to name a few. The systematic study on these materials was motivated by the research conducted by Dr. S.K. Deb, who published two seminal papers on tungsten oxide films in 1969 and 1973 [1,2]. Apart from the astonishing success of the 250 million Gentex automatic-dimming mirrors that have been sold since 1987 and the recent dimmable cabin windows of the Boeing 787 Dream-liner and some business aircrafts, commercial electrochromic applications have been limited [3,4]. This means that there is a substantial need for better understanding electrochromism from the scientific point of view. In fact, this was realized by Professor Bruno Scrosati, who organized the First International Meeting on Electrochromism (IME-1) in Murano, Venice, Italy in 1994. Since then, IME has been held every two years around the globe, IME-2 (1996 in San Diego, CA, USA), IME-3 (1998 in London, UK), IME-4 (2000 in Uppsala, Sweden), IME-5 (2002 in Golden, CO, USA), IME-6 (2004 in Brno, Czech Republic), IME-7 (2006 in Istanbul, Turkey), IME-8 (2008 in Seoul, Korea), IME-9 (2010 in Bordeaux, France), IME-10 (2012 in Holland, MI, USA), IME-11 (2014 in Taipei, Taiwan) and IME-12 (2016 in Delft, Netherlands).

The proceedings of previous IME can be found in literature [5–15]. The meeting in Delft can also be viewed as continuation of the biennial historical symposia dedicated solely to this topic. The technical program of IME-12 includes 9 invited lectures, 32 oral and 31 poster presentations. This meeting not only provided us the opportunity to re-assess the future potential on the advanced electrochromic materials and devices but also opened the window for all participants to seek for research partners. There were 118 attendees from 19 countries, covering both academic circle and industrial sectors. The participants ranged from the pioneer of electrochromics to young students. New participants were attracted from the neighbouring fields of thermochromism, photochromism and gasochromism. The meeting organizers would like to acknowledge the participants, members of the international advisory board, members of the local organizing committee, and our student volunteers, without whom the success of this meeting would have been impossible. We would also like to extend special thanks to all the sponsors for their generous donations. We feel very fortunate to receive financial support from Gentex and the Dutch Federation of Technical Universities (4TU). The present volume of Solar Energy Materials and Solar Cells contains only some of the contributions presented at IME-12. All manuscripts were subjected to the standard peer-reviewing procedure involving at least two referees. The guest editors would like to thank all the reviewers and the scientific committee for their professional help as well as the contributors for submitting their manuscripts. The next meeting, IME-13, will be held in August 27– 31, 2018, Chiba, Japan (http://ime-13.jp). It is expected that this important and fascinating topic will have taken a large step forward.

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