Editorial

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Semiconductors were behind the computer and telecommunications revolution. They are expected also to be the key materials for the development of photovoltaics (PV) technology that will provide tomorrow's clean energy to our planet and help avoid the catastrophic effects of climate change.

Beam Injection Assessment of Microstructure of Semiconductors (BIAMS) Workshop series was inaugurated in 1988 in Paris, France. The following sessions were held in France (1991, 2003), Italy (1993), Spain (1996 and 2008), Germany (1998 and 2010), Japan (2000) and Russia (2006). For many years following its inception, the workshop focused on the investigation of defects in semiconductors by means of techniques based on beam carrier injection such as cathodoluminescence (CL), photoluminescence (PL), light/electron/ion beam induced current (LBIC/EBIC/IBIC), thus the original name (BIADS) of the workshop. Subsequently, its scope was extended to cover the study of microstructures in semiconductors by various techniques such as transmission/scanning electron microscopy (TEM/SEM), atomic force microscopy (AFM), scanning tunnelling microscopy (STM), near field scanning optical microscopy (NFSOM), Raman... and BIADS became BIAMS since 1998. Since then, the workshop focuses on discussing the assessment of microstructures and their impact on semiconductors properties.

This 11th session of BIAMS gives a special attention to materials for energy applications including solar cells and optoelectronic devices. A good number of presentations deal with the investigation of defects which play a critical role in semiconductor devices using a variety of techniques such as CL, PL, EBIC, lock-in thermography, Raman and other photon and electron spectroscopies. The first part is

dedicated to the material synthesis and characterisation while Part 2 is dedicated to the study of various semiconductor device characterisation and modelling.

We sincerely thank all members of the International Scientific Committee, Advisory Committee and the organising committee for their valuable contribution to the success of workshop.