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CHRISTOPHE BALLIF

Biography and current work

Biography

Christophe Ballif is director of the Phototovoltaics and Thin Film Electronics Laboratoryb) (PV-Lab at the institute of microengineering (IMT) in Neuchâtel (part of the EPFL since 2009). The lab focus is on the science and technology of high efficiency heterojunction crystalline cells, so-called passivating contacts for solar cells, multi-junction solar cells include novel generation Perovskite on innovative optical high speed detector and on various macroelectronics application. The PV-Lab has strongly contributed to technology transfer and industrialization of novel devices and full technology with numerous companies.

Christophe Ballif graduated as a physicist from the EPFL in 1994, where he also obtained in 1998 his Phd degree working on novel PV materials. He accomplished his postdoctoral research at NREL (Golden, US) on compound semiconductor solar cells (CIGS and CdTe). He worked then at the Fraunhofer ISE (Ge) on crystalline silicon photovoltaics (monocrystalline and multi-crystalline) until 2003 and then at the EMPA in Thun (CH) before becoming full professor at the University of Neuchâtel IMT in 2004, taking over the chair of Prof. A. Shah. He (co-) authored over 400 journal and technical papers, as well as several patents.

Since 2013, C.Ballif is also the director of the new CSEM PV-Center, also located in Neuchâtel. The CSEM PV-Center is focussing more on industrialisation and technology transfer in the field of solar energy, including solar electricity management and storage. At the core of the CSEM PV-center activities lies several "pilot lines" for various kinds of solar cells manufacturing, with a focus coating technologies, wet chemistry processes for crystalline silicon, metalisation techniques for solar cells, and a platform for developing "ideal packaging solutions and polymers" for PV modules. In addition, joined facitilites between CSEM and EPFL of over 800 m2 are available for modules manufacturing, measuring and accelerated aging. CSEM also operates a joined center with BFH in Biel for research on electrochemical storage.

Liste de publications

Most publications available on http://infoscience.epfl.ch http://pvlab.epfl.ch/publications



Christophe Ballif

christophe.ballif@epfl.ch http://pvlab.epfl.ch/

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