



WORKSHOP: 'SUSTAINABLE STEELS FOR DIRECT DEPOSITION OF PHOTOVOLTAIC SOLAR CELLS' (STEELPV)

Date: 19/09/2017

Duration: 2 Hours

Abstract

By 2020, several European Directives promoting renewable sources to produce 20% of the EU energy consumption and to reach a nearly Zero Energy Buildings have to be fulfilled. Steel products are currently competing with other construction materials such as glass, ceramic, plastic, or other metals to be used as substrates for photovoltaic devices. To date, only high cost solar grade stainless steel has been industrially used as direct flexible substrate for photovoltaic applications, offering a great possibility for steel value added products expansion. In fact, these new solutions could be integrated for the building envelope (façades and roofs) of both new and retrofitted buildings, to any kinds of use (residential, industrial), encompassing practically the whole building market. Finally, other sectors such as road infrastructures and transports could take advantages of these developments.

The European STEELPV project main objective (RFSR-CT-2014-00014), belonging to the Research Fund for Coal and Steel Programme, is to make compatible low cost steel as direct substrates for thin film photovoltaic devices, through the development of ad-doc intermediate layers using non-vacuum and vacuum strategies. At the end of the STEELPV project, a portfolio of value added steel products will be ready, enabling steel partners direct access to the photovoltaic industry. Sectors such as building envelopes for new and existing buildings, road infrastructures and transport will take benefit of the STEELPV developments.

Workshop:

Main topic covered in this workshop will be the use of steel for novel BIPV concepts.

Agenda

16:00	Welcome and presentation of the workshop (ITMA) Dr. D. Gómez, ITMA Materials Technology, Spain
16:10	Short introduction to STEELPV Dr. P. Sanchez, ITMA Materials Technology, Spain
16:20	Preparation of metallic substrates for BIPV Dr. Y. Lan, MK Metallfolien GmbH, Germany
16:40	Development of intermediate layers for based on vacuum strategies Dr. A. Belluci, CSM, Italy
17:00	Development of intermediate layers for based on SiO_x sol-gel Dr. P. Sanchez, ITMA Materials Technology, Spain
17:20	Coating/printing techniques on steel substrates Prof. D.T. Gethin, University of Swansea, UK
17:40	Applying OPVs/PSCs directly to steel Dr. J. Kettle, University of Bangor, UK



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