



PRESS RELEASE

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European H2020 Marie Curie Research Programme:

Ultra-high Charge Carrier Mobility to Elucidate Transport Mechanisms in Molecular Semiconductors

UHMOb

Almost all of today's electronic technology involves the use of semiconductors, mostly silicon semiconductors. Organic semiconductors represent an innovative solution towards flexible, large-area, cost-efficient circuits and devices. However, before such semiconductors can reach the market, issues with performance, processing and reliability need to be solved.

The European Commission funded UHMOb project, bringing together 10 partners in 7 different countries¹, aims to design, synthesise and assess the performance of a novel generation of organic semiconductors, creating a favourable environment for industrial innovations. These semiconductors are cheap to produce and allow additive manufacturing of electronic circuits.

As part of an International Training Network (ITN) of the Marie Skłodowska Curie Action (MSCA), UHMOb also seeks to deliver the finest quality research training and transfer of knowledge in an interdisciplinary, inter-sectoral, and emerging supra-disciplinary field, to a group of 15 early-stage-researchers (ESRs) to educate them to become future scientific leaders.

Halfway into the project, several innovative semiconductors have been synthesised and characterised for its quality and properties. Different elements have been optimised and tested to improve the performance of organic semiconductors. Project partners have also investigated and optimised organic field-effect transistor (OFET) devices with several novel molecular semiconductors developed in the programme.

From an educational point-of-view, 15 ESRs have continuously been trained in different interdisciplinary technical issues related to scientific objectives of the project as well as in a large variety of soft skills.



They have also been actively committed to disseminating results through papers and online events and also to communicating about the project in social media via Twitter and LinkedIn.

“While searching for the next steps in my scientific path, it was an obvious decision to choose a Marie-Curie PhD since it brings great opportunities for collaboration and networking, essential to grow as a scientist. It also contributes significantly to the development of not only technical and scientific but also personal skills”, says one of the 15 ESRs of the UHMob network.

For more information about the project, please visit the project public website www.uhmob.eu

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https://twitter.com/UHMob_MSCA



<https://www.linkedin.com/in/uhmobeuropean-training-network-465673189/>

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ⁱ List of Partners

UNIVERSITE LIBRE DE BRUXELLES (Belgium), Project Coordinator

UNIVERSITE DE MONS (Belgium)

THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE (United Kingdom)

UNIVERSITE DE STRASBOURG (France)

TECHNISCHE UNIVERSITAET GRAZ (Austria)

HUMBOLDT-UNIVERSITAET ZU BERLIN (Germany)

MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV (Germany)

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