

About ORZEL Project

Orzel is an EU-funded project aiming at boosting the scientific excellence and technology-transfer capacity in organic electronics of the Silesian University of Technology (SUT) in Poland. The project creates a network between SUT and the University of Durham (UK), Commissariat à l'énergie atomique et aux énergies alternatives (CEA, France) and Eindhoven University of Technology (Netherlands). This network allows staff exchanges, training workshops, conferences, summer/winter schools, and dissemination and outreach activities in three scientific priorities:

- Innovative organic light emitting diodes (OLED)
- Advanced characterisation of charge transport in organic electronics
- Advances in organic solar cells (OSC)

The consortium agreement was signed between SUT and UDUR, INAC and TUE.

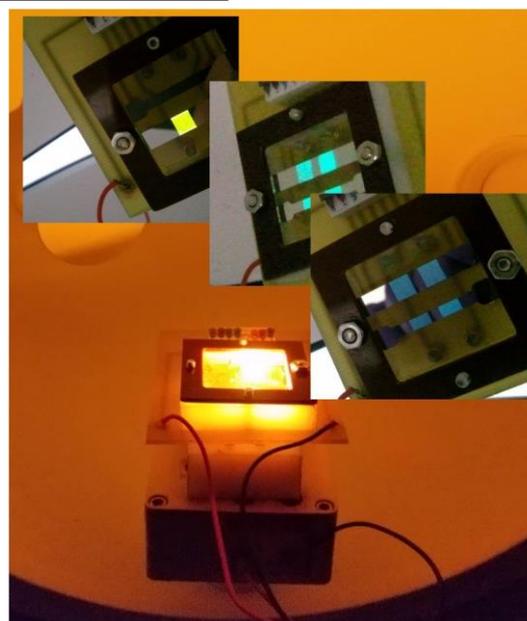
[The Orzel Project has currently been running for 24 months.](#) During this time, activities have been well underway, including several meetings, lecture sessions and several staff and knowledge transfer exchanges between different institutions.

An overview of last few months' events:

The staff exchange between SUT and UDUR

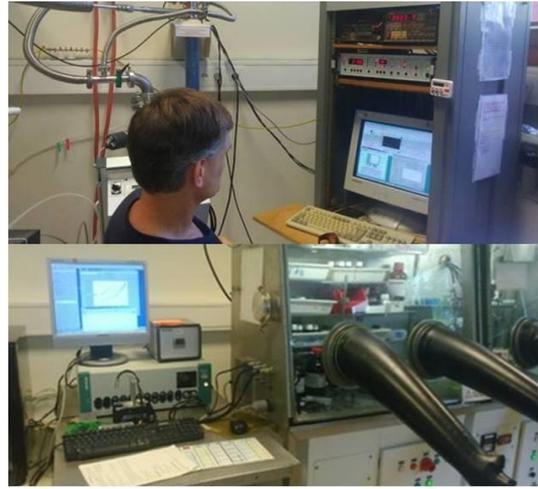
Next researchers from the SUT held their internship in UDUR in the last year, becoming familiar with photophysical studies on organic luminescent materials. They also gained experience in the preparation and testing of OLEDs devices.

In August, two scientists from UDUR started 1-month exchange to the SUT. During their stay, they became acquainted with electrochemical and spectro-electrochemical techniques that are available at SUT.



The staff exchange between SUT and INAC

During last year, three researchers from SUT spent time at CEA-INAC in Grenoble, France. During their stay they either became familiar with the techniques available or continued their previous work applying various methods of characterization of charge transport in organic semiconducting materials.



The staff exchange between SUT and TUE

The first staff exchanges between SUT and TUE took place in the last year. Ten researchers from SUT have spent time in Eindhoven becoming familiar with OPVs formation and characterization.



Silesian University of Technology OPEN DAYS and “Organic electronics” classes for high school students

In April and May 2017, the laboratories of SUT research group have been visited by high school students during University’s OPEN DAYS and open classes. Students have a possibility to hear few words about organic electronics and take part in experiments connected to organic synthesis, OLEDs fabrication and electrochromic windows.



XXIInd International Krutyn Summer School - "State of the Art in Organic-only TADF OLEDs. From Theory to Application"

XXIInd International Krutyn Summer School was held in Krutyn, Masurian Lake District, Poland, on May 21-27, 2017. The lectures were devoted to Organic Synthesis, Characterization of organic materials, Characterization of OLED devices, Q-M computation and Technological Aspects.



Prof. Rene Janssen from TUE at SUT

In the end of June 2017, professor Rene Janssen from TUE has visited SUT and given several lectures on basis of OPVs.



Researchers from INAC at SUT

Between 28 September and 6 October 2017, two researchers from CEA/INAC have given lectures to the SUT audience: Dr. David Djurado on "Multi-scale studies of the structure of polymers using X-rays and neutron scattering measurements" and Prof. Michel Bardet on "The basics concepts of Nuclear Magnetic Resonance spectrometry applied to solid state matter".



SYNOHE Workshop, December 2017

ORZEL project Partner (Groupe de Recherches (GDR) Organic Electronics from CNRS) organized SYNOHE (Synchrotron and Neutron techniques for Organic and Hybrid Electronics) workshop, which was devoted to the application of large scale facilities techniques (synchrotron and neutron) to the investigation of materials of interest for organic and hybrid (opto)electronics. The workshop took place in Annecy (France) on 4th and 5th of December.



Lectures at Silesian High School, December 2017

On the 8th of December 2017, Dr Małgorzata Czichy from the Silesian University of Technology has given a lecture entitled "Chemistry in electronics" to students of the 3rd High School in Katowice. During this lecture, students learned what are the differences, pros and cons of organic and inorganic semiconducting materials, what problems are currently being solved in the field of organic electronics and what are perspectives of organic electronics in future.



New project funded:

New project OCTA – H2020-MSCA-RISE-2017/778158

Our new OCTA project will form a EU-Japan-Taiwan-Brazil network of leading groups and will train a new generation of materials scientists for the development and application of Charge Transfer based materials who can apply their expertise directly in future applications.

<http://octa.organicelectronics.co.uk/>



New project Polish National Science Centre – 2017-25/B/ST5/02488

In this new project, we will try to use the thermally activated delayed fluorescence (TADF) process for various mixed layers of donor-acceptor (exciplex) as OLED emitter and studied the influence of morphology and thermal properties of layers on emission in order to improve efficiency up to 100% (more than 15% EQE). Such stable systems will help in the future eliminate expensive iridium based compounds in diodes and OLED displays.



Incoming events:

WOREN 2018

We are inviting you to participate in 5th Workshop on Organic Electronics and Nanophotonics (WOREN), which will be held in Hotel Stok in Wisla (Poland), 11-15.02.2018.

WOREN 2018 conference is organized by Department of Physical Chemistry and Technology of Polymers, Faculty of Chemistry, Silesian University of Technology and ORZEL EU project.

<http://woren2018.organicelectronics.co.uk/>



For more information please visit our website: <http://www.orzel-project.com/>

