

Warsaw Doctoral School in Natural and Biomedical Sciences and the Institute of Organic Chemistry PAS cordially invites you to **advanced lecture series**:

## **Circularly Polarized Luminescence: Light, Molecules and Materials**

given by

**Dr Francesco Zinna**

(Department of Chemistry and Industrial Chemistry, University of Pisa, Italy)

**Francesco Zinna** received his PhD in Chemistry and Materials Science at the University of Pisa in 2016. Later, he worked as a postdoctoral research assistant at the University of Geneva (CH) in the group of Prof. Jérôme Lacour. In November 2018, he was appointed researcher/lecture in the Department of Chemistry and Industrial Chemistry of the University of Pisa, where he is now assistant professor. His main scientific interests include the design, preparation and spectroscopic study of chiral compounds. In particular, a significant part of his work is focussed on finding compounds and materials for circularly polarized emission.

**Agenda:** For a few years now, chiral materials have been finding applications in chiral electronics, e. g. in circularly polarized (CP)-OLEDs, CP-sensitive transistors, spin filters, etc. Such a —perhaps unexpected— surge in interests for chirality in general requires, on one side, the development of new chiral materials and, on the other one, new spectroscopic techniques able to investigate the most fundamental aspects of chirality.

Circularly polarized luminescence (CPL) is a very versatile technique which measures the differential emission of left and right circularly polarized light. On one hand, CPL allows one to gain information about the chirality of the excited states, on the other hand, such property opens the way to new applications ranging from bioimaging to chiral optoelectronic devices.

**Lecture 1: May 11, 2023 (Thursday), 9 a.m. – conference room IOC PAS, Warsaw, Kasprzaka 44/52**

we will give a general overview of the principles and basics of the technique and instrumentation for CPL, as well as examples on selected compounds (organic molecules, lanthanide coordination complexes, aggregated organic systems).

**Lecture 2: May 11, 2023 (Thursday) 11:00 a.m. – conference room IOC PAS, Warsaw, Kasprzaka 44/52**

In the second lesson, we will cover a few applications of CPL emitters in electronic devices, such as circularly polarized OLEDs, as well as in electrochemiluminescence and in bioassays and CPL microscopy.

**OPEN LECTURE – May 12, 2023 (Friday) – 10 a.m. – aula IOC/ICP PAS, Warsaw, Kasprzaka 44/52**

**Lecture:** "Harnessing chirality: molecules, light, properties and applications"

Registration at [aleksandra.butkiewicz@icho.edu.pl](mailto:aleksandra.butkiewicz@icho.edu.pl)

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