Short Term Scientific Mission funded by the COST Action CA22131

LUCES

Supramolecular LUminescent Chemosensors for Environmental Security

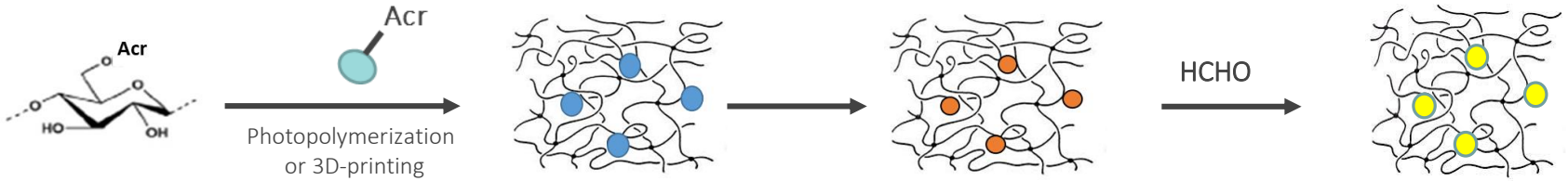
Towards a 3D sensor prototype for detection of toxic formaldehyde in air and water

OBJECTIVE:

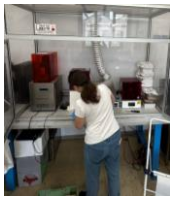
Preparation of a 3D-sensor for the detection of formaldehyde for fruit packaging

Steps:

- Synthesis of a pre-fluorescent monomer
- Functionalization of a bio-based polymer (cellulose)
- Crosslinking/3D-printing of cellulose: obtaining of a film/3D-device
- Activation of the sensor
- Formaldehyde detection



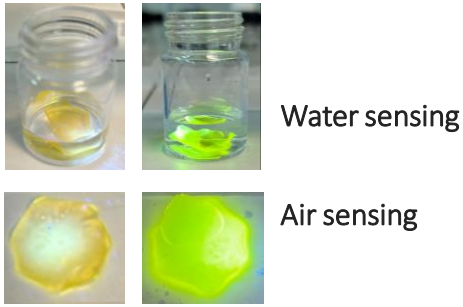
Acrylated cellulose



Film/3D-device

Activation

Sensing



Water sensing

Air sensing

Dr. Paula Bosch

Home Group: Dr. Paula Bosch, ICTP-CSIC, WG 3/4

Host Group: Prof. Ignazio Roppolo, Politecnico di Torino, IT, WG 3/4

Period: 21.10.2024 to 25.10.2024

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Funded by the European Union