

John Madden

Smart Ionic conducting gels for piezoionic and ionotronic applications

Professor John DW Madden of the Molecular Mechatronics group at the Electrical and Computer Engineering department of the University of British Columbia (UBC, Vancouver, Canada) will visit the LPPI (Laboratory of Physical chemistry of polymers and interfaces) at CY to develop a new project on ionic conducting gels with advanced functionalities for ionotronic and piezoionic applications. These soft materials can conduct electricity as done by the soft living tissues, by involving ions as charge carriers. They can be used as soft and stretchable electrodes, be the interface between soft living matter and stiff electronics, but also convert a mechanical stimulation into an electrical signal like the human sensory system. Thanks to this visit, Pr Madden will participate to the future conference "Toward Repair of the Human Body# 2022 - 2nd International symposium on Biomaterials & Smart Systems Innovations for Healthcare Engineering", that will be organized at the end of October 2022 at CY Cergy Paris university and be co-funded by CY Advanced Studies.