

PhD Scholarship: Stretchy, sticky, self-healing organic electronics

A PhD scholarship, funded by the prestigious Marsden Fund, is available to work on an interdisciplinary project that will make a unique and substantial contribution to the advancement of organic conducting materials. Stretchable electronic components and devices are a new frontier in electronics, going beyond flexible thin film devices. If further combined with adhesion to complex surfaces, such as skin, exceptional opportunities in optoelectronics, sensing, bio-integrated electronic devices, and soft robotics, may be accessible. The project will contribute towards synthesis of such materials, as well as fundamental understanding of the relationship between the structure and morphology of the new materials to their electronic and other physico-mechanical properties.

The PhD student will ideally have skills in polymer synthesis and chemical, electrochemical and spectroscopic characterization. The student will benefit from the broad knowledge base of the other investigators involved on the project (Prof. Jadranka Travas-Sejdic, Assoc. Prof. David Barker, Dr. Andrew Nelson) and will receive a wide spectrum of training (AFM, tensile testing, adhesion testing, SEM, XPS, SAXS etc.). Furthermore, the PhD student will receive training in neutron and X-ray scattering for nano-structural characterisation of soft-condensed matter systems, with experiments to be carried out at ANSTO (Australia) and the Australian Synchrotron. A person with a sound scientific background is sought, who is enthusiastic, eager to learn, shows initiative, has good English language skills, and is able to work both independently and in a team.

If interested, please email either Professor Jadranka Travas-Sejdic at j.travas-sejdic@auckland.ac.nz or Prof. David Barker at d.barker@auckland.ac.nz with your CV, academic transcript, a short statement of interest and the names and details of two professional referees.