

Postdoc position in bio-inspired architected materials at McGill University



We have a new opening for a Post-doctoral researcher starting immediately in the Laboratory for Advanced Materials and Bioinspiration at McGill University, Montreal.

The successful candidate will explore bio-inspired microarchitectures to increase and amplify the mechanical performance of engineering materials (glasses, ceramics, polymers). The project involves micromechanics, fracture mechanics, finite elements, design optimization and small-scale and in-situ mechanical testing. Fabrication involves 3D printing and three-dimensional laser engraving, a technique we recently developed to generate bio-inspired microstructures into (<http://barthelat-lab.mcgill.ca/publications.html>). Materials and systems of interest include nacre-like ceramic / polymeric composites, multilayered conch-shell like composites and fish-scale inspired flexible protective systems. Strong interactions with collaborators in Chemistry, Biology, Surgery and Bioengineering as well as with industrial partners. Funding: NSERC / FRQNT / CIHR

Required background: Mechanics of materials, composites, fracture mechanics, experimental mechanics and finite elements.

Preferred but not required: background in biological / biomaterials / biomimetic materials.

Send full CV to francois.barthelat@mcgill.ca

Website: <http://barthelat-lab.mcgill.ca/>

