

CSACS Summer Project

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### Self-Assembly of H-Bonding Networks at the Liquid-Solid Interface

This project will involve synthesizing (Université de Sherbrooke) and investigating the self-assembly (Concordia University) of a series of molecules with three identical acceptor/donor hydrogen-bonding units using scanning tunneling microscopy (STM). The three molecules of interest (**1**, **2** and **3**) each have three H-bond acceptor/H-bond donor sites with C<sub>3</sub> symmetry (R=H). In all three cases hexagonal chicken-wire self-assembly is expected. The principle goal is to gain an in depth understanding of specific molecule-molecule and molecule-substrate supramolecular interactions at play in these systems, when applicable, particular attention will be placed on surface chirality.

