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Nano-scale Laminar Flow Reactor

Student(s): Andrew Keefe
Major: Chemical Engineering
Category: Applied

The purpose of this study is to develop a new use for microbial cellulose produced by the bacterium, *Acetobacter xylinum*. There is a potential to construct a gravity driven nano-scale laminar flow reactor. Small particles (i.e. enzymes or solid phase reactants) can be embedded in the growing cellulose matrix with geographic specificity. A fluid containing a substrate can pass through this active region by gravity driven flow and a reaction will occur.

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