

## **MFC Power Maximization Exercise**

### **Experimental Procedure**

- 1. Soak cation exchange membrane in 8% salt solution for 24 hours.**
- 2. Assemble MFC.**
- 3. Prepare solutions for anode and cathode chambers.**

Both solutions are mixed with 0.1 M pH 7.0 phosphate buffer

Anolyte:

10mM Methylene Blue  
1 M Glucose  
85 g/L Yeast

Catholyte:

10mM Potassium Ferricyanide

- 4. Use a syringe to transfer anolyte and catholyte in chambers.**
- 5. Use multimeter to record open circuit voltage (no external load) every 2 minutes until MFC has reached a steady-state value.**
- 6. Measure steady-state voltage with external loads (33k, 10k, 3k, 1k, 330, and 100  $\Omega$  resistors) across the two electrode terminals. The voltage should reach a steady state value after about 2 minutes.**