



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Richard Chavez; Obioma Onuoha; Justin Sin	Project Number 31655
Project Title The Microbial Fuel Cell: Is Warmer Better?	
Objectives/Goals To conduct the experiment, two identical fuel cells were constructed using a single mud sample from a local reservoir. Plastic containers were used for the anodes and cathodes, PVC pipe and agar were used to make the salt bridges, an air pump was used to supply oxygen, and copper wire and carbon cloth were used to make the electrodes. After being built, both fuel cells were tested using a multimeter and produced the same voltage. One fuel cell was then placed in a room temperature environment (approximately 20 degrees Celsius) and another was placed in a heated incubator (approximately 30 degrees Celsius). Using the multimeter, the voltages generated by both fuel cells were recorded on a regular basis for 6 weeks.	
Summary Statement The objective of our experiment was to determine if higher temperatures would yield higher voltages in the fuel cells.	
Help Received Ms. Claire Fasching answered some questions pertaining to what research hasn't been done yet; Mr. Dirk Sikkema let us use his incubator	