

## CWSF 2014 - Windsor, Ontario



### **Twisted Carbon Fibre Aerogel: A Cellulose Based Hydrophobic Superabsorbent**

**Challenge:** Innovation

**Category:** Senior

**Region:**

**City:** ,

**School:**

**Abstract:** In this experiment I set out to determine whether twisted carbon fibre aerogels could be used as a replacement for hydrocarbon based sorbents to clean up oil spills. The material was synthesized from cellulose sources and then tested. It was found that, with some optimizations, the twisted carbon fibre aerogel synthesized from cotton absorbed three times as much oil as the hydrocarbon (polypropylene) based sorbent.