



# 2016 NOBCChE National Science Fair Abstract

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Category: **Physical Science**

Title: **Filtering Water, Which Filtration System Works Best?**

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This project determines which of the four filtration systems best cleans or filters the dirty water. My hypothesis is that sand will work the best to filter the Copper Sulfate solution.

The four materials that were used in the filtration systems were gravel, sand, cactus gel, and activated carbon. I also prepared Copper Sulfate solutions to simulate greywater or dirty water. The greywater solution was poured through the filtration system. The filtered water copper concentration was analyzed and recorded. In conclusion, the water filtration system that used the cactus gel worked the best in comparison to the other 3 filtering materials.

The National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) National Science Fair is a poster competition in which students present an independent completed research project. Each contestant in the Science Fair must demonstrate their ability to conduct a research project by:

- Submitting an abstract of 150 words or less on an individual research project in one of the following **four categories: physical science, math & engineering, consumer science, or biological science.**
- Presenting the results of the research in a poster format, including answering questions from judges; and submitting a written report during the poster presentation.
- For more information, visit [www.nobccheSTEMwkd.com](http://www.nobccheSTEMwkd.com).