

Rapid sand filter system removes *Crypto* oocysts

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CHARLOTTE, NC — A University of North Carolina Charlotte (UNC Charlotte) assistant professor has developed an efficient, inexpensive, low-tech way to treat water that has applications in developing countries, according to a March 6 UNC Charlotte [press release](#).

Dr. James Amburgey, an assistant professor of civil and environmental engineering, specializes in drinking and recreational water treatment. His latest research focuses on a rapid sand filter system. He has done work in the past with slow sand filters. According to the release, his latest research with rapid sand filters is demonstrating their ability to clean water much more effectively and 30 to 50 times faster.

"The idea is to make it as simple as possible," Amburgey is quoted as saying. "All that is needed is some PVC pipe, sand and inexpensive treatment chemicals. The only way to practically deploy a system to the people of less developed countries is for it to be inexpensive and simple."

The filter, which removes *Cryptosporidium* oocysts, does so using Amburgey's chemical pretreatment scheme that makes *Crypto* adhere to the sand grains. Preliminary testing shows that the system removes greater than 99 percent of *Cryptosporidium*-sized particles.