Alternative energy patent issued to Kansas State University

January 16 2014

Kansas State University was recently granted a U.S. patent for a material that helps convert straw and other grasses into a cleaner substance for alternative energy and fuel.

The patent, "Char Supported Catalysts for Syngas Cleanup and Condition," was issued to the Kansas State University Research Foundation, a nonprofit corporation responsible for managing technology transfer activities at the university. The patent is for research conducted by former faculty members Wenqiao Yuan and Duo Wang.

The patent focuses on more efficiently converting biomass made from straw and other grasses into a synthetic gas called syngas. Syngas can be burned for energy, used to generate electricity and is a basic building block in fossil fuels.

Yuan and Wang developed a catalyst—a substance that increases the rate of a chemical reaction and is left unchanged by the reaction—that can be used in syngas production. Converting biomass to syngas creates tar, an unwanted byproduct that must be scrubbed from the syngas.

"The Kansas State University-produced catalyst is more effective at removing tar from the syngas production cycle and is less expensive than current filtration methods," said Marcia Molina, vice president of the university's research foundation.

The patent currently is available to license.

Two patents were issued to Kansas State University in 2013. The university currently holds 100 active patients in its portfolio.

Provided by Kansas State University