

For Immediate Release

SHELL BREAKS BARRIER. WORLDWIDE EFFECT ON HYDROGEN, FERTILIZER AND SEQUESTERED CARBON.

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<http://www.eprida.com/hydro>



August 31, 2002 - Researchers using biomass from peanut shell ended a successful 100-hour experiment to demonstrate hydrogen production. They announced a method to sequester vast amounts of carbon while making fertilizer. This is one of the largest biomass to hydrogen projects in the U.S.

The hydrogen research team broke through the 100-hour mark and ended their demonstration of producing hydrogen from 50kg per hour of biomass on August 30, 2002. The team comprised of researchers from Clark Atlanta University, Georgia Institute of Technology, DOE National Renewable Energy Laboratory (NREL), Scientific Carbons, Inc. and Enviro-tech, Inc. began the experiment on August 25, 2002 producing hydrogen from biomass (peanut shells) as the culmination of a two-year field research project. The project has focused on expanding the demonstration of hydrogen production while producing valuable co-products from farm and forestry sources of biomass. In this case the co-product also serves as a long-term sequestered carbon. The need for co-products is essential to developing a profitable and sustainable hydrogen economy.

On August 22, 2002, NREL and Scientific Carbons, Inc.(SCI), a technology development company, filed for patent protection on a new slow release fertilizer made while producing biomass based hydrogen and a sequestered carbon. This product offers a chance for the fertilizer and farm industry to become a significant carbon sink while increasing farm income and crop yields. The use of the sequestered carbon as a carrier for nitrogen and as a soil amendment, which can prevent harmful runoff of farm chemicals is a win-win for farmers. Farmers and fertilizer manufacturers can become a major force in the battle against global warming while facilitating a renewable production of hydrogen. This work combines efforts currently underway in both the USDA and DOE and provide a way to reduce greenhouse gas buildup while producing the zero emissions fuel hydrogen. Danny Day, President of Scientific Carbons said, "The preliminary numbers look promising. Only a small percentage of the global unused agriculture and forestry waste would be required to sequester the amount of carbon building up in our atmosphere and deliver nitrogen to plants that can sequester even more. Using this technique, farmers could be the most successful and economically profitable method of sequestering all the excess atmospheric carbon generated. Economic development can lead to innovative sequestration techniques and we want to help demonstrate sustainable ways to serve mankind."

SCI plans to continue its development work with NREL and is also looking for industry partners and other teams to help in a coordinated research and development strategy. It asked that interested parties send an email with contact information or contact them through the website, as they are building a notification list. "This scale of solution is one that can be implemented globally and make a significant contribution to the planet's health. We want to quickly develop it as an effective and profitable addition for sustainable agriculture and energy production. Efforts of the USDA, DOE and private industry should be encouraged as a part of the global collaborative of public-private efforts." Mr. Day said. "This work is good for the farm economy and ultimately for the common good of all life."

For more information:

Visit the project website: <http://www.eprida.com/hydro>

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The image is of the hydrogen (47%) and methane (3%) flare in blue vs the pyrolysis gas flare each over a meter in length.