



# NOTRE DAME NEWS

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**For Immediate Release**  
**October 26, 2001**  
**From: William G. Gilroy**

Researchers from the University of Notre Dame's Center for Environmental Science and Technology (CEST) have developed a simple method for cleaning up toxic metal contaminated wastewaters.

In a recent cover story of the journal Environmental Science and Technology, the research team reported that biomass materials effectively remove toxic metals, such as copper, cesium, molybdenum, nickel, lead and zinc, even in the presence of competing metals likely to be found in highly contaminated sites. The biomass material used was the spillage that remains after the manufacture of ethanol from corn and ground corn cobs from the production of animal feeds.

The effectiveness of the biosorbents was demonstrated using samples from the Berkeley Pit in Montana.

Pollution of the environment with toxic metals is widespread and often involves large volumes of wastewater. The researchers say that the results of the experiment demonstrate that biosorption of metals from wastewaters using biomass products is a viable and cost-effective technology.

**more**

## **Biomass byproducts... add 1**

The Notre Dame researchers included Charles F. Kulpa Jr., professor of biological sciences and director of CEST; Clive R. Neal, associate professor of civil engineering and biological sciences and director of the Inductively Couple Plasma-Mass Spectrometry (ICP-MS) research facility; and Jinesh Jain, manager of the ICP-MS. The Notre Dame team worked with a group of researchers from Wichita State University led by Mark. A. Schneegurt, an assistant professor of biological sciences. Schneegurt was a postdoctoral research associate and research assistant professor in Notre Dame's Department of Biological Sciences from 1996 to 2000.

Notre Dame undergraduate students Sara Brown, Matthew Quallick, John Menicucci Jr., and David A. Garofalo also participated in the research.

CEST is a cooperative effort between Notre Dame's Colleges of Science and Engineering, providing education and basic research opportunities for the development of cutting-edge technologies leading to innovative solutions to both national and international environmental problems.

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