

A simple, low-cost carbon filter removes 90% of carbon dioxide from smokestack gases

Researchers in Wyoming report development of a low-cost carbon filter that can remove 90 percent of carbon dioxide gas from the smokestacks of electric power plants that burn coal and other fossil fuels. Their study is scheduled for the May 21 issue of ACS' monthly journal, Industrial & Engineering Chemistry Research.

Maciej Radosz and colleagues at Wyoming's Soft Materials Laboratory cite the pressing need for simple, inexpensive new technologies to remove carbon dioxide from smokestack gases. Coal-burning electric power plants are major sources of the greenhouse gas, and control measures may be required in the future.

The study describes a new carbon dioxide-capture process, called a Carbon Filter Process, designed to meet the need. It uses a simple, low-cost filter filled with porous carbonaceous sorbent that works at low pressures. Modeling data and laboratory tests suggest that the device works better than existing technologies at a fraction of their cost.

Source: ACS

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