A Method for Removing Pollutants from Porous, Solid Materials

The University of North Dakota is actively seeking companies to commercialize a proprietary method for the removal of fuel-type chemicals, pesticides, and/or household chemicals entrapped in solid, porous surfaces. The technology offers a suite of tools to reduce a variety of pollutants that are superior over common methods of remediation, including photocatalyst-induction, bioremediation, or the application of adsorbents/absorbents.

Applications
For use in decontaminating porous, solid materials, including, but not limited to:
- Concrete
- Wood
- Gypsum
- Brick

Also, for use in the remediation of semi-volatile organic chemicals, including, but not limited to:
- Fuel oil
- Diesel Fuel
- Pesticides/household chemicals/automotive liquids
- Explosives
- Naphthalene
- Hexadecane

Advantages
- Unlike traditional techniques that use soap or bleach to clean contaminated surfaces, the proprietary technology removes contaminants residing deep within the pores of the material, as well as on the surface of materials that have undergone long-term exposure or for materials that are freshly contaminated

Technology
A method of removing pollutants from porous, solid materials using a biomass, a photocatalyst, an adsorbent, or a combination of any of the three, has been developed. The biomass, photocatalyst, or adsorbent are allowed to come into contact with the building material until sufficient amounts of pollutant chemicals are reduced to make the materials acceptable and safe for use.

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