

Banana peels get a second life as water purifier

March 9 2011

To the surprisingly inventive uses for banana peels — which include polishing silverware, leather shoes, and the leaves of house plants — scientists have added purification of drinking water contaminated with potentially toxic metals. Their report, which concludes that minced banana peel performs better than an array of other purification materials, appears in ACS's journal *Industrial & Engineering Chemistry Research*.

Gustavo Castro and colleagues note that mining processes, runoff from farms, and industrial wastes can all put heavy metals, such as lead and copper, into waterways. Heavy metals can have adverse health and environmental effects. Current methods of removing [heavy metals](#) from water are expensive, and some substances used in the process are toxic themselves. Previous work has shown that some plant wastes, such as coconut fibers and peanut shells, can remove these potential toxins from water. In this report, the researchers wanted to find out whether minced banana peels could also act as water purifiers.

The researchers found that minced banana peel could quickly remove lead and copper from river water as well as, or better than, many other materials. A purification apparatus made of banana peels can be used up to 11 times without losing its metal-binding properties, they note. The team adds that banana peels are very attractive as [water](#) purifiers because of their low cost and because they don't have to be chemically modified in order to work.

More information: "Banana Peel Applied to the Solid Phase

Extraction of Copper and Lead from River Water: Preconcentration of Metal Ions with a Fruit Waste", *Industrial & Engineering Chemistry Research*.

Provided by American Chemical Society

Citation: Banana peels get a second life as water purifier (2011, March 9) retrieved 25 April 2024 from <https://phys.org/news/2011-03-banana-life-purifier.html>

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