

Purification of Mercury in Water with Lime Peel

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Abstract:

The objective of this article is to contextualize the reader about the viability of the purification of mercury in water by means of lime peel. This element is toxic for humans and animals, the most common effects are on the immune and nervous system, skin, lungs, kidneys and eyes. These effects may vary depending on the form and amount of mercury in which a person is exposed.

Researchers from Centro de Investigación y Desarrollo Tecnológico en Electroquímica (CIDETEQ) and Centro de Ingeniería y Desarrollo Industrial (CIDESI) have proven that there is an efficient method of decontaminating water containing mercury, this method is made from an absorbent material composed mainly by orange peel.

Lime peel can be found as waste in many industries so costs in finding and buying the raw materials should be moderate to low. This citrus would then be sent to the laboratory to undergo the drying process. Finally, it is important to mention that the process was carried out based on the particular characteristics of the citrus, these characteristics were the following: humidity, average shell weight, average fruit weight and percentage of pulp vs shell.

Key Words: Mercury, Peel, Lime, Purification, Water, Pollution, Organic, Osmodehydration, Filter, Innovation, Health,