Abstract:

Millions of city dwellers don’t own a washing machine and instead have to deal with the hassle of hauling their laundry to a laundromat. To spare them from some of that backbreaking work, we have developed Freshbox: a product that saves time, money, and water -- freshening clothes using Earth-friendly methods.

With our proprietary two-step process, odor molecules can be vaporized off stinky cloth. To make our product work, it is composed of a container to hold clothes, control circuitry, a vacuum pump, and a CO₂ tank. Our product requires minimal user interaction. Simply place clothes in the container and hit the start button. Then the vacuum pump begins to evacuate the atmosphere inside the container. At the low pressure, odor molecules vaporize at an accelerated rate. After a short hold time, the vacuum pump shuts off, and CO₂ is injected via a valve to the container. This quick two-step process can be repeated for greater odor-removing effects. The end result is clothes that smell fresh and is ready to wear again.