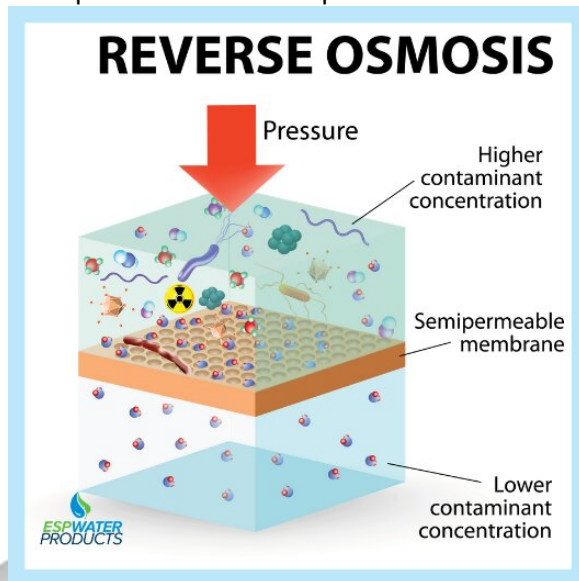




Desalination without Electricity

Recently, researchers at the Tata Institute of Fundamental Research (TIFR), Mumbai, have been able to desalinate seawater to produce drinking water without using electricity.

- Unlike the conventional reverse osmosis that is energy-intensive, the researchers used gold nanoparticles which required no external energy to produce potable water from seawater. [//](#)



- Using gold nanoparticles that absorb sunlight over the entire visible region and even the near-infrared light, researchers were able to use sunlight to heat the water up to 85 degrees Celsius and generate steam to produce drinking water from seawater.
- Alternatively, gold nanoparticles can also be used to convert carbon dioxide into methane.
- However, This is only a preliminary study. The next step should be to replace gold with some inexpensive metal to make it sustainable,

PDF Reference URL: <https://www.drishtias.com/printpdf/desalination-without-electricity>