Desalination of seawater using carbon-coated solar absorber in solar still

ABSTRACT

Desalination is a process of eliminating salt and other minerals from seawater which turns it to a safe usable water. This study showed the generation of clean water from seawater using carbon-coated solar absorber in two different solar still body colours which are transparent and black solar still, under direct solar exposure at approximately 1.2 kW/m². The efficiency of carbon-coated solar absorber in the transparent and black solar still was computed, while the clean water collected was examined for its pH and salinity. Carbon-coated solar absorber in black solar still exhibit the highest efficiency at around 35.71%, where the pH and salinity of the collected clean water was substantially reduced to usable water at 6.55 and 62 ppm, respectively.