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(57) Abstract :
Solar Desalination Plant ABSTRACT Our Invention Solar Desalination Plant is a The maximum moisture content possible in air - at saturation - varies with temperature. The table-1 indicates maximum moisture content in a cubic metre of air at various temperatures. The invention is a water treatment using solar energy and the desalination plant includes an evaporator-desalter communicating with an intake system for water to be desalinated and a vapour and condensate discharge system. The invented technology also includes the evaporator is essentially at least a portion of a water pool wherein the density of water is higher than that of the water being desalinated, and mounted above the water pool are atomizers and branch pipes of the vapour and condensate discharge system. The invention is the atomizers and the branch pipes are provided with a collapsible roof. The surface of the water pool of the evaporator is covered with a film having floating elements shaped as balls and can be used for water desalination in droughty and waterless coastal areas nearby the seas and oceans. The invention is also includes a seawater desalination system using solar energy, and to a seawater desalination system using solar energy, wherein the structure thereof is relatively simple due to the adoption of a evaporation-type seawater desalination system for generating seawater vapor by heating and evaporating seawater and for obtaining fresh water by cooling and condensing the generated seawater vapor, and an external energy supply can be minimized by using solar energy using solar heat or solar light power generation as a heat source for evaporating seawater, thereby reducing maintenance costs.

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