A review and comparison of solar distillation: Direct and indirect type systems

Hikmet Ş. Aybar*, Hossein Assefi

Department of Mechanical Engineering, Eastern Mediterranean University, G.Magosa, North Cyprus, Mersin 10, Turkey
Tel. +90 (392) 630 1451; Fax +90 (392) 365 3715; email: hikmet.aybar@emu.edu.tr

Received 12 August 2008; Accepted in revised form 29 September 2009

ABSTRACT

One of the fast growing problems around the world is providing drinking water. This is felt especially in arid and semi-arid areas where lots of people lack fresh water. Solar energy can be used as the heat source to distillate brackish water. In this study, a comprehensive review of solar desalination systems is presented. The solar distillation systems are classified into two groups: direct distillation systems and indirect distillation systems. Comparison of the systems is presented in the tables.

Keywords: Solar distillation; System types; Direct type; Indirect type; Review

* Corresponding author.