

Title (en)
SOLAR-POWERED WATER DESALINISATION PLANT

Title (de)
MIT SONNENENERGIE BETRIEBENE WASSERENTSALZUNGSANLAGE

Title (fr)
STATION DE DESSALEMENT D'EAU FONCTIONNANT A L'ENERGIE SOLAIRE

Publication
EP 0999996 A1 20000517 (DE)

Application
EP 98945099 A 19980727

Priority
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• EP 9804696 W 19980727

Abstract (en)
[origin: WO9906322A1] Solar radiation is able to permeate a wall (11) of an evaporation tank (1) containing salt water via the surface (35) of the salt water. Floating elements (5) which absorb solar radiation float in said evaporation tank (1) in areas of the surface (35) of the salt water and are struck by directed solar radiation. A device for focusing solar radiation on said areas of the surface (35) of the salt water may have Fresnel lenses (8) and/or radiation concentrators with parabolic reflectors (6) and passive reflectors (7). The floating elements (5) can be hollow and roughly pill-shaped and can be fixed flexibly to the wall (11) of the evaporation tank (1). The floating elements (5) can have a base (34) with cambered sections (37) on their underside, said cambered sections being arranged so that they are radially symmetrical. The cambered sections (37) lie partly above and partly below the surface (35) of the salt water and have gas outlet openings (31) close to said surface (35). The floating elements (5) can be connected to a heating element (2) by means of gas inlet connection pieces (36) and a flexible line (38) in order to heat the gas using the solar radiation striking said floating elements (5), and can be connected in parallel in groups. The group which is series-connected with the heating element (2) is optionally interconnected via a chamber (4) in which the evaporation tank (1) is partially enclosed.

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C02F 1/14; **B01D 3/34**

IPC 8 full level
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CPC (source: EP)
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Citation (search report)
See references of WO 9906322A1

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