

Title (en)  
ELECTRICAL POWER GENERATION BY MEANS OF OSMOSIS

Title (de)  
STROMERZEUGUNG DURCH OSMOSE

Title (fr)  
GÉNÉRATION D'ÉNERGIE ÉLECTRIQUE PAR OSMOSE

Publication  
**EP 3986598 A4 20220629 (EN)**

Application  
**EP 20827683 A 20200403**

Priority  
• TR 201909200 A 20190620  
• TR 2020050271 W 20200403

Abstract (en)  
[origin: WO2020256670A2] The present invention is an electricity generation (300) system (10) comprising a membrane unit (200) comprising a casing (110) for storing a high solute liquid (111), a source for providing a low solute liquid (121), a first inlet (222) for receiving high solute liquid (111) to a first chamber (221) and a second inlet (232) for receiving low solute liquid (121) to a second chamber (231), a semi-permeable membrane (210) provided between the first chamber (221) and the second chamber (231) in order to provide passing of the low solute liquid solvent from the second chamber (231) to the first chamber (221) and diluting of the high solute liquid (111) at least partially and increasing of the flow rate at least partially and a first outlet (223) which permits exiting of the diluted high solute liquid (111) from the second chamber (231), and an electricity generator (300) associated with said first outlet (223) for generating electricity (300) by means of the movement of the diluted high solute liquid (111) with increased flow rate. Accordingly, said casing (110) comprises a mouth opened to the outer medium and a feedback outlet (410) is provided for providing falling of the diluted high solute liquid (111), passing through the electricity generator (300), towards said mouth; at least one evaporation gap (420) is provided for permitting at least partial evaporation of the liquid falling towards the mouth (112) from the feedback outlet (410) between said feedback outlet (410) and said mouth (112).

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Citation (search report)  
• [X] US 4177146 A 19791204 - CAMIRAND WAYNE M [US], et al  
• [A] WO 2011148649 A1 20111201 - NITTO DENKO CORP [JP], et al

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