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(71)Name of Applicant :

**1)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)Chitkara Innovation Incubator Foundation**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)SALUJA, Nitin Kumar**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)SINGH, Varinder**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**3)MIDHA, Simran**

Address of Applicant :Plot No. 120, Industrial Area, Phase II, Chandigarh -160002, India. Chandigarh -----

**4)SINGH, Gurjinder**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The present disclosure relates to system (100) and a method (300) for desalination of water using a microwave generator (102) that is more energy efficient. The microwave generator (102) produces microwave radiations within the microwave generator to heat water contained therein to a predetermined temperature. A membrane (106) is coupled to the microwave generator to receive hot water from the microwave, and vacuum is generated through a vacuum pump (110) that extracts vapours from a feed side of the membrane to a permeate side of the membrane. Further, a condenser unit (108) attached to the membrane condenses the vapours received in the permeate side of the membrane, and purified water is collected in a reservoir (112).

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