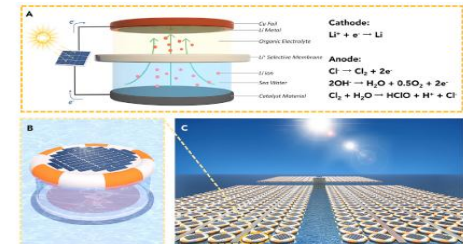
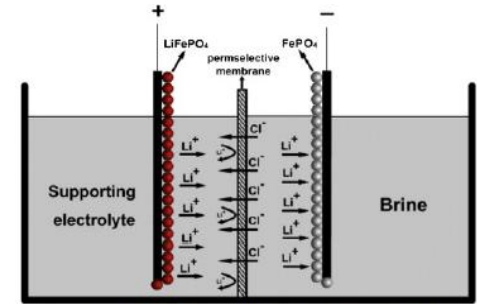


Inflatable Non-imaging Solar Concentrator Based Ultra-High Efficiency and Substantially Low Cost Water Desalination System and Electrolytic Extraction of Lithium

Project Summary

FENG SHI / SOLENSPHERE LLC

SolenSphere LLC (SolenSphere) proposes to deploy its newly patented technology “Inflatable Non-Imaging Solar Concentrator Based Concentrating Hybrid Solar Thermal and Photovoltaic System Powered Water Desalination System” (US 11014828 B2) to cogenerate electric power and fresh water simultaneously to make the investment on desalination system economically competitive. The patented new technology uses SolenSphere’s newly invented inflatable non-imaging solar concentrator and newly developed hybrid solar thermal and photovoltaic panels as receiver to cogenerate electricity and thermal energy at substantially low cost. The cogenerated thermal energy is subsequently stored and used for thermal power generation to smooth the intermittence of the solar system. Then synergistically combine the cogenerated electricity and the residue thermal energy after thermal power generation to desalinate sea water through the multiple-effect distillation (MED) or multi-stage flash distillation (MSF) so as to extraordinarily reduce the cost of the water from desalination. Furthermore, the residue brine from the desalination is used for electrolytic lithium extraction



Project Impact

The success of the proposed project will not only realizes ultra-high efficiency, substantially low cost, and super reliable power generation system in any scales, but also desalinate the geothermal brine to get fresh water and the condensed brine for electrolytic extraction of lithium. If the proposed solution for lithium is extended to sea water desalination and lithium extraction from sea water. The constrain of resource limitation for development of electric vehicles will be radically eliminated.

Recovery any source of water in low price