Optimization of Current Collector Structure and Study Electrode Surface Effect in Seawater Battery

A.R. Redaei[1] A.Taeb[2] M.A. Torabi[1] M. Khalilianfard[1]

1- Yazd Ammunition and Metallurgy Industries

2- Iran University of Science and Technology (IUST)

ABSTRACT:

For improve the operation of one electrochemical system, we must design and optimize internal structure therefore we must study and discussion discharge curves. In this paper for high-energy seawater battery, done the optimization of current collector structure and discharge curves in case of constant current discharge state for variation of voltage with time, study and draw for different condition for optimization of current collector structure. Also study on effect of silver electroplating, effect of electrode surface and effect of current collector thickness in seawater battery.

Keywords: Seawater Battery, Reserve Battery, Discharge Curves, Material Battery, Battery Design, Power Sources

[Downloaded from necjournals.ir on 2026-11-12]

Estimating Total Solar Radiation in Different Climatological of Region in Iran Using Cloud Factor

Kh. Jafarpour M.Karshenas
Dept. of Mechanical Eng., University of Shiraz

ABSTRACT:

Iran is among the countries located on the belt pertaining to lands with a high rate of solar insolation. Statistics show that, for instance, the solar energy which hited the Iranian continental land just in the year of 1990, was more than 1600 times that of the energy exported by Iran in the same year. This high rate of solar insolation, on the one hand and the limitation of fossil-fuel reservoirs (especially, utilizing energy from such sources is polluting the environment) on the other hand, show that harnessing the solar energy is not anymore a choice of decision but rather an obligation. To fulfill this obligation one needs solar insolation data to be able to design and evaluate solar energy utilizing systems and other uses under different climatological conditions of Iran. As a first step, this article provides total solar radiation data for various cities in Iran under different climatological conditions using cloud factor as a parameter.

[Downloaded from necjournals.ir on 2026-11-12]