



INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

Waste Management of Salt Solar Distillation

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Abstract

The solar desalination is an efficient technique for removal of salts. This work aims to show the matter of management of salts in a distiller powered by solar produced water with oil reduced. The work was carried in Natal / RN - Brazil during the months of August and September 2007. The equipment used is a single solar still passive two water with inclination of 20 ° in coverage. The operation of the equipment is batch to food and continuous to collection of distilled water. Was determined the parameter of Chloride, that it is the most representative element of salinity, and pH and still held the mass balance. The results showed a distillate with 12.40 mg Cl in opposition to 700.00 of chloride inle. Thinking themselves in an industrial scale, which would be fed volumes of the order of thousands of cubic metres, these values would be the order of tons of salt a day, so that strategies should be established destination for such waste. Based on the results analyzed, there was a removal of approximately 99% of Cl- The mass of Cl in waste was 3487, where it can infer that, for sewage or water production with high salinity, waste generated will reach, the order of tonnes daily.

Keywords: Solar energy, Solar distiller, Waste management, Chloride.
