

# **OZONE FOOD STORAGE SUPPLIED BY PHOTOVOLTAIC ENERGY**

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## **ABSTRACT**

In Algeria and in several Third World countries, there are many isolated sites that are not yet connected to the conventional electrical grid. They face mostly problems such as food storage, which is a real constraint for rural residents. The purpose of this paper is to design and implement at a lower cost a system comprising a photovoltaic system supplying an ozone generator for the disinfection of a food storage room in an isolated site to increase the shelf life of the food products. An experimental study was conducted using several fruits and vegetables that were placed in an ozone treated room. A comparative study using a similar control untreated room has shown that such a system allows long-term storage with low energy consumption of nearly 16 W/m<sup>2</sup>.