Air Purification System for Food Storage

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Abstract

This paper presents an device for purifying air in a food warehouse. The time of food storage can be increased by microbiological purification of the air from the deposit. For this purpose the whole mass of air is passed through a microwave. Also for air purification, a ultraviolet light lamp was placed at the cavity entrance. Air leaving the oven is passed through an ozone generator. To test the effect of re-circulated air through the unit on food, the entire system is equipped with a keyboard, an LCD display and control relays so the user can adjust the operating time of the magnetron and ozone generator. The ozone generator was made from a high voltage fly-back source that was connected on the output with two grid like electrodes separated by a plastic sheet. Due to the Corona discharge that appears on the electrodes, O_2 molecules decompose into oxygen atoms and recompose immediately into O_3 . The fans that insert and remove the air from the sistem were so designed that it can re-circulate approximately 10 m^3/min.

Biography

Born in 1989 in a small city from Republic of Moldova, obtained a High school degree in 2008. In 2012 was awarded with the Engineer title after finishing a full-time 4 years course in Applied Electronics at the Faculty of Electronics, Telecommunications and Information Technology, from the Technical University of Cluj-Napoca. Has high knowledge of four foreign languages: English, Italian, French, Russian and currently learning German and Japanese. Convinced that his name will be known in the engineering world and will be an good and respected engineer.

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Manuscript received on July 12, revised on September 27, 2012