

**Executive Summary of scientific report published in
Annals of Allergy, Asthma & Immunology entitled:**

Enhancing Contaminant Control to Mitigate Aeroallergies

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The complex electrical fields that exist in all spaces interact with airborne charges, particulates, water droplets and gases. These interactions primarily determine where and when contaminants are deposited in and on people, objects and walls in a room. The unique in-duct complex electrical fields of CosaTron are designed to control these interactions and minimize contamination.

The objective of the research reported in this scientific publication was to determine if the natural process of aerosol coagulation can be speeded up so that the effectiveness of filters can be enhanced; and in so doing, improve indoor air quality for people with allergies and asthma.

A set of four experiments were carried out in several test facilities. The first two involved the use of particulates; the first with recirculated air and the second with non recirculated air. In the first experiment a cascade impactor was used to measure particulates. In the second experiment, groups of people were used to measure the odor and irritation of particulates. The third and fourth experiments were done with gaseous contaminants; the third with initial contaminant levels set at levels just noticeable to people and the fourth at levels that would be hazardous after a short exposure. A gas detector tube system was used to measure gaseous contaminant levels. Contaminant levels when CosaTron was on were compared to contaminant levels when CosaTron was off. All other conditions were identical.

The results of the research showed that the CosaTron on condition substantially reduced the amount of all of the contaminants tested in the facilities, when compared to the CosaTron off condition. These differences were highly significant as shown by statistical tests on the data. In the first experiment, CosaTron on substantially effected the mass of the particulates. In experiment two, the use of CosaTron changed a room environment unacceptable to people in terms of odor and irritation to an acceptable room environment. In experiments three and four, with CosaTron on, the gaseous contaminants were reduced substantially, ranging up to almost fifty percent.

It is concluded that the data show that CosaTron is very effective in improving indoor air quality in a way that can be of consequence to people with allergies and asthma.

To read or download the complete scientific paper "Enhancing Contaminant Control to Mitigate Aeroallergies" click [here](#).