

INFLUENCE OF ELECTROMAGNETIC FIELDS ON LIVING ORGANISMS

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When we graduated at high School, we asked ourselves if the knowledge we had acquired was useful in a real contest of research.

So, we decided to accomplish an experiment, using the main part of the notions we have learned.

Our main goal was not only about the results of the experiment, not so significant because of the limits due to the restricted resources we had relied on. We were trying to follow a correct methodology of research, creating a creative way to realize a significant experience only with our possibilities and skills.

The project consists in studying the influence of an electromagnetic field on the growth of two kinds of plants, small peas and alpha alpha, in a greenhouse where every environmental factor was checked by sensitive sensors and maintained constant. The structure was made by ourselves, using the things we could get easily (recycled parts, lent instruments and "hand made" instruments).

Then, we reviewed the bibliography about electromagnetic fields generation and the effects of them on human body, including also the laws referred to it.

The environmental conditions in the greenhouse were checked by some sensors connected through a

spreadsheet to a computer, where a program manages the replies to restore the previous conditions.

The electromagnetic field was created by an iron core surrounded by a copper coil where electric current was passing through. We put the plants further and further from the core, so we were expecting a gradual contrast between the closer plants and the further ones.

The results we got showed an inverse relation between electromagnetic field intensity and plants' growth. We are aware of the limits of our experiment, due to the poor number of plants we studied and to some difficulties we can't perfectly solve, but we have reached our aim, following the procedure we established and getting results.

