



Determining nitrogen oxides in the school

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The main objectives of our project are that students become familiar with a professional chemistry laboratory and make them aware of humans' contribution to the change of our planet. This project has been successfully repeated for several years and consists in analyzing different substances in the atmosphere, such as nitrogen oxides, sulfur oxides and ozone.

We use a device which makes the air go through a solution that captures the substance we want to determine. First we prepare a calibration curve with some solutions of known concentrations prepared in the lab. Then we analyze the sample with a spectrophotometer by measuring its absorbance. In this way we determine the concentration of the particular substance we are interested in.

When we analyze gases in the atmosphere, we are able to see how the concentrations of these substances change in our town due to human activities.

This year we will be focusing on nitrogen oxides and comparing our results with some others from previous years. We should remark the fact that a former student is the one responsible for leading the project. She had also participated in the project when she was studying in the school. Students learn this way the importance of communication and sharing science knowledge, which is another of our project goals.