Lowering the Level of Toxic Wastes in the Environment with the Use of Ionisation Principles

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Lowering the Level of Toxic Wastes in the Environment with the Use of Ionization Principles Nigar Bakhshaliyeva School-Lyceum N6, Baku, Azerbaijan The purpose of my project is to make our planet a better and a safer place. In 21st century, now than ever, our biggest and most vicious enemy is pollution. The device presented provides an efficient way to decrease the concentration of toxic substances, such as exhaust gases, in the environment. The process of developing this device was hard and time-consuming, yet extremely rewarding. The investigation was conducted in two steps: theoretical and experimental research. Upon carrying out the first step, I made quite a few fascinating discoveries for myself which highly impacted the set up of the device. My mentor was always present to recommend useful resources and to discuss the ideas. As a resource, I mainly used the university's library. The second part of the procedure, that is experimental research, was conducted at the university's laboratories. At first, as source of energy for ionisation, we decided to use electric field. Yet upon conducting the experiment, it proved itself to be inconvenient in a sense of high energy usage and safety. Thus, it was decided to use laser. Both the theoretical and experimental research summed up to the device that I present today. I believe it to be the best outcome of all the hard work that was put into it. Yet most importantly, I believe it to be able to achieve its purpose.

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