Filter-Free Air Filtration System Based on Nano Steam Technology

Zhang, Ruixi (School: Guangzhou No.16 Middle School)

Air quality affects human health all the time. With the rapid development of urbanization and industrialization, Air quality in cities is polluted. In order to purify the suspended particles in the air, and to kill the harmful viruses in the air at high temperature, I have designed a device that can quickly purify the air without producing secondary pollution. It works by turning liquid water into nanoscale vapor by heating it, which absorbs polluting particles from the environment. At the same time, a narrow metal tube is added in the export stage to make the steam friction with it and generate negative ion static electricity. This accelerates the binding of water molecules to pollutants. The combined pollutants are condensed and settled quickly under the action of the refrigeration device. At the same time of air purification, in addition, the device realizes high temperature disinfection of mixed gases through the liquid - gas - liquid conversion process of water. It has positive effect on preventing respiratory diseases and improving indoor air humidity. In addition, by adding a series of measures such as intelligent switch, the device will be connected to the intelligent home system for various configuration applications, to achieve automatic detection of the environment, the system remote start and other functions.

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