

AIR POLLUTION

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The high speed of industrial development in modern countries is the reason of a sharp increase of the air pollution. Low quality of technologies and the lack of material resources in the modern treatment plants leads to a lot of emissions. Also one of the main reasons is the use of poor-quality fuel.

Air pollution sources are divided into natural (volcanic eruptions, forest fires and wildfires, sandstorms) and man-made (which can be divided into several groups):

- Transportation is pollutants resulting from the operation of road, rail, air, sea and river transport;

- Production is pollutant emissions produced during manufacturing processes, heating;

- Household are pollutants due to combustion of fuel in the housing and processing of waste.

The air pollution can also be divided into several groups:

- Mechanical pollutants are dust of cement factories, dust from coal combustion in boilers, furnaces and kilns, soot from the combustion of oil and fuel oil, wears tires away.

- Chemical pollutants are dusts or gaseous substances that can enter into chemical reactions;

- Radioactive contaminants.

Scientists found that each year air pollution leads to premature death of more than 3 million people. This question is particularly relevant for the countries of Asia.

The research team compared the data on the chemical composition of the atmosphere and the health statistics and mortality in many countries. As it turned out, premature mortality is highly dependent on household emissions. This negative trend is especially visible in the case of China and India.

After a significant improvement of living standards and material income of residents in Asia, the number of vehicles have formed problem of exhaust gases.

The most common methods for air purification are:

- Particulate-Purification techniques;

- Absorption,

- Adsorption,

- Catalytic gas cleaning,

- Thermal post- combustion.