

In Russia, they found a way to halve energy consumption during waste processing

The press service of the Ministry of Education and Science of the Russian Federation reported that the specialists of the Tomsk Polytechnic University have developed a new method of processing coal waste, which can significantly reduce energy consumption. The method is based on the addition of organic materials – cedar nuts and cow manure.

The traditional method of microwave pyrolysis, although effective for processing organic waste, requires large energy consumption. Russian researchers proposed a solution to this problem using available natural materials as catalysts.

The experiments have shown that the addition of only 10% of the cow manure to the coal gas accelerates the pyrolysis process by almost double. Cedar nuts in the same proportion reduces energy consumption by 47.5%. Both options also reduce the total processing time by 8-10%.

Scientists have already created an experimental installation with a capacity of up to 20 kg per day for further study and introduction of technology. A new approach can be the basis for creating economical and environmentally friendly methods for the disposal of various industrial waste.