

Rosatom specialists use artificial intelligence (AI) to develop and synthesize new materials. According to the supervisor of the Materials and Technology program Alexei Dub, this allows you to significantly accelerate the process of searching for optimal solutions.

One example was the determination of the composition of the material for the supercritical pressure reactor. For this task, it was required to analyze about 250 thousand options. With traditional methods, such a volume of work would be practically impossible, but with the help of AI the optimal composition was found in two weeks.

Another project concerns the production of carbon fiber. The use of artificial intelligence made it possible to optimize the technological parameters and reduce the spread of the final characteristics of the material. This increased production stability and improved product quality.

The use of AI also contributed to a decrease in the weight of carbon fiber structures.