The press service of the Tomsk Polytechnic University (TPU) reported that university scientists discovered an important pattern: the power of light radiation affects not only the speed of chemical reactions in photodynamic cancer therapy, but also their direction. This discovery can make the treatment of cancer more effective.

Photodynamic therapy (FDT) is a modern method of combating cancer, in which special photosensitizers under the influence of light destroy tumor cells. Scientists have found that with a decrease in the power of the LED source, the speed of the main reaction is reduced, but side processes are accelerated.

Researchers paid special attention to substances from the group of alkylverdazils capable of generating radicals. These compounds are promising for oxygen -dependent FDT, which can be used even in conditions of lack of oxygen in tumor tissues.

According to the authors of the work, the understanding of photography mechanisms (decomposition of substances under the influence of light) will create more effective drugs for clinical use. Now many researchers do not take into account the power of light as a key parameter, which can reduce the accuracy of experiments.