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TO STUDY THE PHYSICOCHEMICAL BASIS OF THE PROCESSES OF DYEING AND PRINTING OF MIXED FIBER MATERIALS

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From the export of natural silk waste abroad, it is achieved to increase its purchasing power by using it in the textile industry of the Republic, as well as to expand the sphere of its use. By modifying Nitron fiber with a solution of natural silk waste, the hygroscopicity, elasticity, sorption properties of the fiber are improved, their electrification is reduced. With natural silk waste, it becomes possible to dye modified nitron fiber not only with Cation dyes, but also with a number of anion dyes. This in turn allows such a fiber to be used in the production of a compound product in combination with cotton fiber. Many works were devoted to the production of their products consisting of a mixture of cotton-nitron fibers, their preparation for dyeing and flower printing, painting and the study of the processes of flower printing, in which a mixture of dyes and a coloring substance of the same class were proposed.

In this scientific work, in order to bring the nitron property closer to natural fiber, the fiber was modified with a solution of natural silk waste, and on the way to expanding its field of use, a new type of assortment was created from a cotton mixture with modified nitron fiber, and the problems of finishing them were studied. The preparation of cotton fiber for dyeing and flower printing is carried out in strongly alkaline conditions. But under these conditions, nitron fiber is destroyed, and its modifier, natural silk, also dissolves at high temperatures, under alkaline conditions. Accordingly, the preparation of fabric samples in a new assortment consisting of a mixture of cotton and modified nitron fibers for dyeing and flower printing was carried out in a weak alkaline and acidic environment. In the bleaching process, an inexpensive, environmentally friendly, low-silicate stabilizer was used as a stabilizer of hydrogen peroxide.

In order to study the effect of each component in its composition on chemical reagents, the first stage of experiments was carried out on the following calves:

- modified nitron fiber with natural silk waste;
- Cotton + modified nitron;
- Cotton+nitron
- silk;
- Cotton;
- nitron.

After the process of preparing the Nitron fiber modifier natural silk, the mixture for dyeing and flower printing, all the kalava samples were put in a solution of nitric acid in order to determine if they were preserved.

From the data in the table it appears that the color intensity of the fiber changes even when the nitron fiber is modified with a 0.5% solution of natural silk waste (TICH). Taking into account the presence of cotton fiber in the composition of the compound product, as well as the presence of basic oil and fat compounds, nitrogen substances, natural color pigments in cotton fiber, the process of preparing the mixture for dyeing and flower printing is similar to the preparation of yarn fabrics for these processes it is desirable to go at the same time, it is known that natural silk dissolves in an alkali solution (3-5% li). In order to verify that the natural silk contained in the modified nitron fiber is retained in the compound by alkali action, nitron, TICH-modified nitron, as well as natural silk fibers were boiled in a 3% NaOH solution and lead acetate was placed in the solution.

The results obtained are presented in Table 3.1. Effect of nitric acid solution on fiber color intensity.

Samples	Color intensity, K / S
Modified nitron	2
Cotton / modified nitron	1,7
Cotton+nitron	
Silk	0
Cotton	15
Nitron	0

It is known that during the spinning process, as well as in the preparation of fabric and knitted polotnos, limers are applied to the threads. In the case of finishing, a desiccation process is carried out. The desiccation process can be carried out in alkaline and acidic environments. Taking into account the yellowing of nitron and modified nitron fiber in an alkaline environment, the samples are limed under acidic conditions.

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ПЕРЕРАБОТКА ОТХОДОВ ДРЕВЕСНО-ПОЛИМЕРНОГО КОМПОЗИТА

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Одной из основных задач современности является снижение негативного влияния жизнедеятельности человека на окружающую среду и переход к использованию возобновляемых источников энергии. В свете этих тенденций разработка

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