
Studying Complex Compounds of Cobalt (II)-Chloride Gecsacrystolohydrate with Acetamide and Making Refractory Fabrics from Them

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Annotation: The method of obtaining has been studied studying complex compounds of cobalt(II)-chloride gecsacrystolohydrate with acetamide and making refractory fabrics from them, the method of obtaining textile materials for chemical technology and concerns the method of obtaining fire-resistant textile materials from cotton and synthetic fibers.

Key Words: Studying complex compounds, cobalt (II)-chloride gecsacrystolohydrate, acetamide, method of obtaining, method of obtaining textile materials, acetamide, cobalate (II)-chlorid.

INTRODUCTION

The invention relates to the chemical technology of textile materials and concerns a method for producing fire-resistant textile materials from cellulose and synthetic fibers. The method involves applying a solution of a phosphonium compound and a nitrogen-containing compound to the tissue, obtaining a phosphorus-containing polymer on the tissue by the reaction of a phosphonium compound and a nitrogen-containing compound to form a precondensate - an oligomer of linear structure, obtaining a mesh polymer on the fabric by the reaction of a precondensate with a cross-linking composition, oxidation of the mesh polymer to convert at least part of the phosphorus atoms in the mesh polymer into pentavalent phosphorus atoms and washing the fabric with water, the pH of the aqueous extract of the fabric without starch is 7 ± 0.5 , a phosphorus-containing polymer is obtained by impregnating it with an aqueous solution tetraxishydroxymethylphosphonium chloride and urea with a concentration of 500 g/l, squeezed, dried at 110°C to a residual humidity of 10% and cooled, the fabric is filled into the roller mechanism of broaching and tension inside the ammonia chamber[1-8].

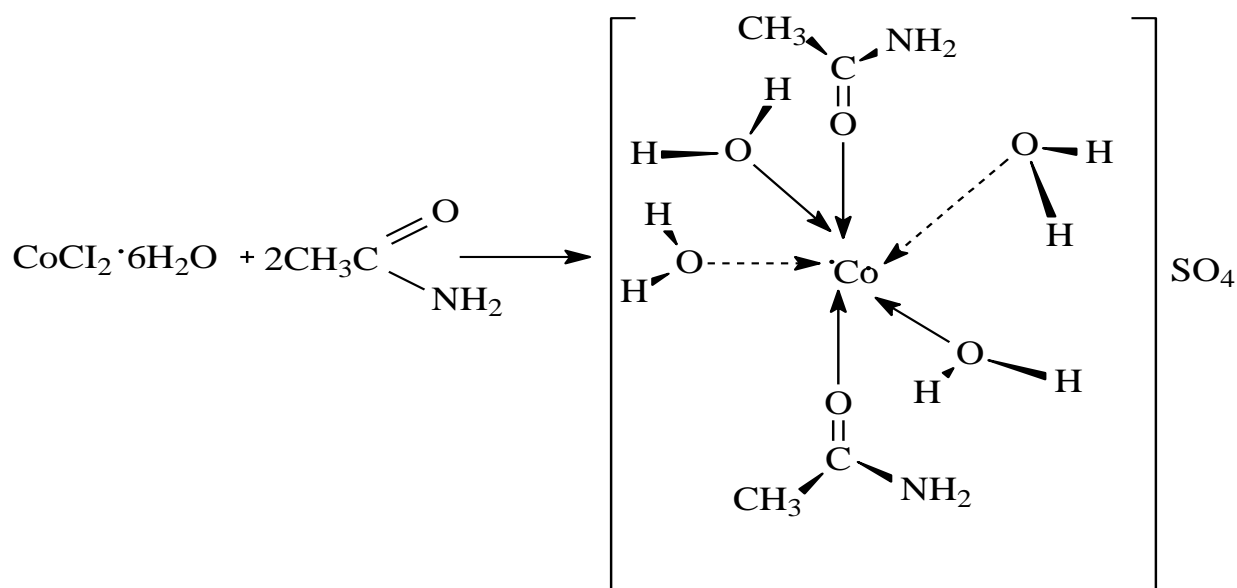
Polymer is obtained by the reaction of a precondensate with a cross-linking composition by treating a wet fabric with a 40-60% mixture of ammonia and air at a temperature of 25 - 40 °C with simultaneous tension to obtain 100-300 nm mesh polymer particles on the fabric, oxidation is carried out by immersing the fabric coated with a mesh polymer in an aqueous solution of hydrogen peroxide concentration 150 g/l at a temperature of $25 \pm 5^\circ\text{C}$ with the production of a mesh polymer on the fabric-a condensation product of tetraxishydroxymethylphosphonium chloride and urea containing a repeating trimethylene phosphine oxide group longitudinally connected by ureidogroups and cross-linked by amino groups, and after washing the tissue with water, it is further treated in an aqueous solution of sodium bisulfite with a concentration of 110-1120 g/l and final washing with water. The

invention provides an increase in the indicators of human protection from the harmful effects of an open flame and a decrease in the irritating effect of the fabric on human skin during its prolonged contact with the material of work wear [9-15].

THE EXPERIMENTAL PART

Kobalat (II)-obtaining a coordination combination with acetamide with hydrochloride hexogiderat.

0,2 mol acetamide 0,1 mol cobalate (II)-chloride hexogiderat is mixed mechanically for 3 hours with a mixer in a porcelain mortar. The ingredients being mixed are cleaned every 10-15 minutes by scraping around the porcelain mortar and the mixer. The formula of the combination can be expressed as follows.



RESULTS ANALYSIS

Our expected results in the experiment were realized at the following stages;

1. 10% li and 20% li solutions of the coordination compound obtained in the experiment were prepared.
2. Fabrics made of cotton were boiled for 10 hours in 20% li and 5% li solutions.
3. Fabrics made of synthetics were boiled for 5 hours in 10% li and 20% li solutions.
4. Fabrics dried in mufel in the oven at 110 °C.

Formed fabrics were burned in normal conditions in atmospheric air. In 10% li and 10% li and 20% li solutions made of cotton compared to the fabrics made of synthetics, 20% li solution made of cotton was determined to withstand the heat of the fabric.

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