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TECHNOLOGICAL PROCESSES FOR OBTAINING CELLULOSE, THE MAIN STABILIZING REAGENT IN THE DEVELOPMENT OF NEW FRACTIONS OF DRILLING MIXTURES FOR THE OIL AND GAS INDUSTRY BASED ON LOCAL RAW MATERIALS

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Abstract:
In recent years, as a result of the implementation of complex measures to develop the textile and sewing-knitting industry in our country, to support the investment and export activities of industry enterprises, 45 percent of the cotton fiber and yarn produced in the republic is recycled. is being developed, and the annual export potential of the sector has exceeded 3.2 billion dollars. Developments on the basis of scientific research, such as the use of modern methods of obtaining cellulose and composite products based on it from the fiber waste of cotton gins, textile and other industrial factories, were analyzed.

Keywords: hydroxide, temperature, solution, cellulose, component, macromolecules, boiling, process, purification, reaction, boiling, autoclave, component, complex, cotton fiber.

Introduction

Cellulose is separated from natural raw material containing cellulose using dissolving reagent for additives other than cellulose. The method of extracting cellulose from the raw material depends on the composition and structure of the plant raw material. soft method when producing cellulose from cotton fibre. Cotton fiber with a 1.4-2.8% solution of sodium hedroxide (NaON) 3-9 atm is boiled for 2-5 hours under pressure and bleached in the presence of an oxidizing agent [1].

Small polysaccharides, wax and oil are included in the solution. In complex processing of wood raw materials of cellulose from wood raw materials (39-48% s.,

4-9% hexosane, 9-19% pentosan, 19-28% lignin, 1-4% resin, because their composition has a complex morphological structure) the method of sulfite or sulfate boiling. The sulfite method is used in the manufacture of high-quality paper and cardboard, the sulfate method is used in the manufacture of folding cardboard paper [2].

Cellulose density is 1.52-1.54 g/cm3, it is a white fibrous material. Cellulose polyhydric alcohol. Since the cellulose macromolecule is a hydroxyl group in an elemental unit, it enters into a reaction with bases and alkali metals. When cellulose is exposed to a concentrated alkaline solution, physicochemical processes, that is, cellulose, are distinguished in addition to chemical reactions. It is used in the textile industry to produce artificial fiber and cellulose ethers by reacting cellulose with a concentrated NaOH solution. The synthesis of copolymers plays an important role in the production of cellulosic materials with new valuable technical characteristics. Since cellulose contains a hydroxyl group, ethers and esters can be obtained from them. Cellulose compounds are used in various industries as fibers, films, varnishes and electrical insulation coatings, in the oil and textile industries as suspension stabilizers and thickeners to acquire valuable properties [3].

Sugarcane is one of Latin America's major crops. In particular, when processing 10 million tons of sugar cane, the waste amounts to 3 million tons and is contained in the form of fat-free feed - bagass agasse). The high humidity of the resulting bagas (about 40-50%) does not allow it to be used as fuel. Therefore, an indefinite period is saved before it is used. At this time, the sugar residues decompose, and the vineyard dries. Bagasse in a new form can be used as livestock feed, and in dry form - as fuel or potential fertilizers, in a number of countries it is processed and technical ethanol is obtained. Traditional methods of producing fibrous materials for these countries are less environmentally applied. The technology for producing cellulose materials from annual plants is the most optimal for delignification of bagasse [4].

Production of industrial pulp by the acid-organosolvent method from bagasse brought from the island of Cuba. According to the results of chemical analysis of the studied plant raw materials, it is known that bagas is characterized by a low cellulose content (which is probably due to its partial decay during transportation and storage), a high lignin content and semi-deserts. A characteristic feature of the Bagas chemical

composition, in comparison with the deciduous tree, is a very high amount of easily hydrolyzed semi-saccharides. It is somewhat unclear whether sugar cane fibers are not ordinary cellulose, but lignocellulose (except for wet composition).

It is known to contain cellulose, hemicellulose and lignin. In particular, bagasse consists of 43.8% cellulose, 28.6% hemicellulose, 23.5% lignin, 1.3% ash and 2.8% other components. Cellulose (class alpha cellulose) is a linear beta-D hemispheres of glucopyranose bonds linked to 14 glycosidic bonds.

Hemicellulose (class beta cellulose and gamma cellulose) is a semisaccharide with a variable composition, containing both five and six units of monosaccharides. The combination of cellulose and hemicellulose is holocellulose. Lignin is a nonnegular polymer of phenylpropane joints. According to various authors, there is little difference in the level of polymerization. Polymer and others have reported that the polymerization level (DP) of natural cellulose is 7000-15000 [4].

Raw materials for the production of cellulose esters. As raw material for production of sodium carboxymethylcellulose by solid-phase method suitability of linseed fibre and linseed material is assessed at various technological stages of production. Studies of chemical processing of cotton fiber waste were carried out. The work was carried out on the basis of cotton wax, large mixed garbage and short wax. Processing of cotton gin waste into pulp, which is a chemical, textile raw material, further increasing the productivity of cotton gins and improving their environmental impact, the production of pulp prevailed over all technologies, while sheet and coniferous raw materials obtained from trees differ from bisulfide, sulfate and sulfide, obtained by cellulose mechanical and physicochemical properties. In addition, it is envisaged to synthesize cellulose obtained from cotton fiber waste into various types.

The simplicity of the technology and the modes required in it make it easy to control with high accuracy, that is, to obtain cellulose and cellulose ethers [5].

Conclusion:

The most contaminated raw materials are waste from cotton gins. There is not enough cellulose in the raw materials, the raw materials are measured by the share of various additional contaminants. In addition to cleaning contaminants from the

content of raw materials, it involves enrichment processes to increase cellulose yield. On the basis of the mechanical cleaning process, the fiber is cleaned from waste, then the boiling process is carried out in sodium hedroxide solutions. In the process of cooking, the influence of indicators was studied in parallel.

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