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PREPARATION AND STRUCTURE OF 6-BENZYLAMINOPURINE

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ABSTRACT

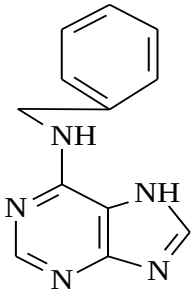
6-Benzylaminopurine is a broad-spectrum plant growth regulator, capable of rejuvenating plants, removing plants from dormancy, causing the formation of side shoots and root shoots, stimulating the formation of chlorophyll and positively affecting photosynthesis, making the leaf darker and greener, stronger, in many crops, when outside root processing of green fruits and berries, is able to postpone the ripening period somewhat in favor of size and weight.

Keywords: 6-Benzylaminopurine, plant growth regulator, lateral shoot, chlorophyll formation, root growth, photosynthesis, green fruit, berries, size weight.

INTRODUCTION

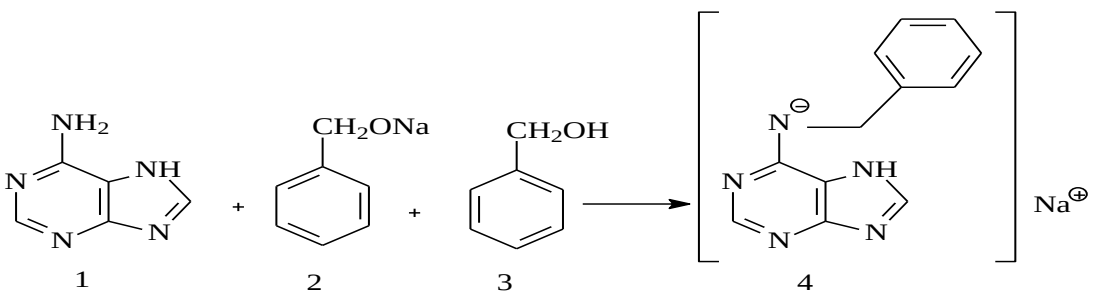
Heterocyclic chemistry is one of the most interesting and important areas of organic chemistry. Suffice it to say that more than 60% of the most popular and widely used drugs of natural and synthetic origin are heterocyclic compounds. the presence of a heteroatom imposes its specificity on chemical properties and determines the specificity of synthesis methods. The variety of heterocyclic compounds is associated with the possibilities of variability: the number and nature of heteroatoms in the molecule, the size of the ring, the degree of saturation that determines whether there is a presence of aromaticity, the presence of condensed compounds. structures. In methodological development, the main focus is on the most common methods and chemical properties of the synthesis of basic classes of aromatic heterocyclic structures. This choice is due only to the fact that there are aromatic heterocycles that exhibit specific chemical

properties inherent in these classes of compounds, and the properties of saturated structures or unsaturated non-heterocyclic ones, as a rule, are similar to their acyclic analogues. ... The fact that heterocyclic compounds are found in natural objects, information about drugs with heterocyclic and other "secondary" in their composition, in our opinion, the data is highlighted in small printed publications and is intended not for memorization and study, but for the development of general knowledge. 6-benzylaminopurine also faollashtirirates the synthesis of RNK and proteins, kuchaytiradiirating kuchaytiradi, increases the resistance of plants to late aging processes and unfavorable external conditions. Wednesday. The chemical structure of 6-benzylaminopurine corresponds to the formula of the following structure.

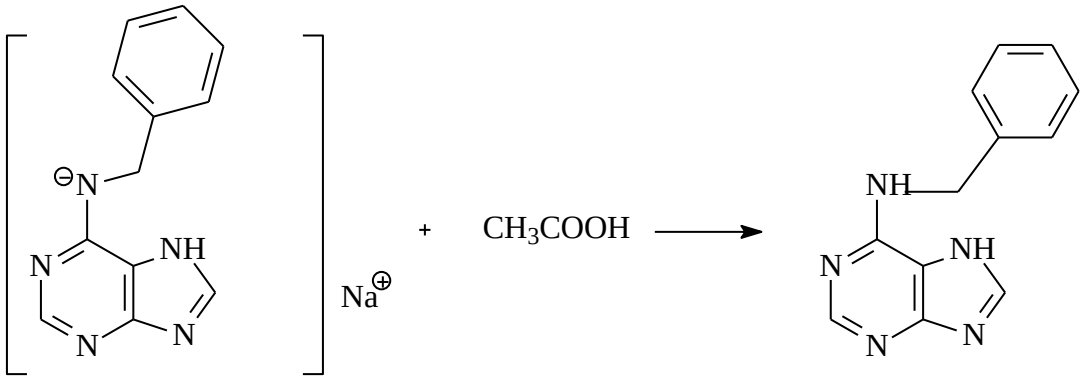


In plants, 6-benzylaminopurine is formed during the transport of RNAKin the roots, as well as as a result of biosynthesis from 5'-adenosine monophosphate and isopentenylpyrophosphate (the latter is derived from mevalon to-siz); with subsequent enzymatic degradation of phosphate and riboside groups, iso-pentenyladenine is obtained, which is oxidized to zeating.
In the form of Transport forms, the corresponding nucleosides and nucleotides pass along 6-benzylaminopurine into the air components of plants.
In plant tissues, 6-benzylaminopurine breaks down much faster with the destruction of the side chain and the rupture of the purine ring; their transport forms are much more stable, as well as reserve conjugate forms that are formed with glucose, alanine and some proteins, connecting them with N atoms of the ring or side chain atoms.

Method for the preparation of 6-benzylaminopurine.
3 g of adenine (1), (0.023 mol), 2.9 g of sodium benzylate (2), (0.023 mol) and 20 ml of benzyl alcohol (3), (0.194 mol) (molar ratio of adenine, sodium benzylate, benzyl alcohol is equal to 1: 1; 8.7) and refluxed with stirring for 2.5 hours. The mixture was cooled to room temperature, 150 ml of diethyl ether was added, and the precipitate was filtered off. Received 5.2 g of sodium salt of 6-benzylaminopurine (4), yield 94% ..

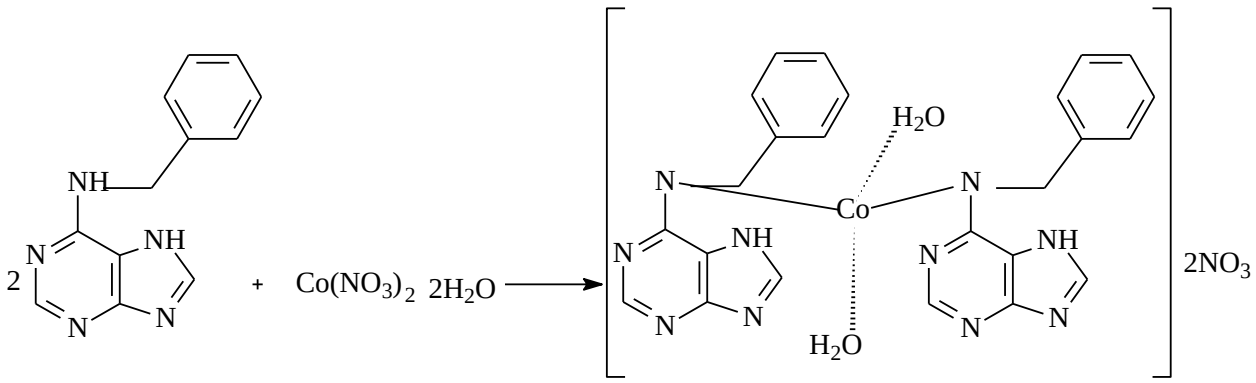


150-200 ml of issiq were dissolved in 5,2 g of sodium 6-benzylaminopurine(4), qo'shilgan 1,3-1,5 ml of sirka kislotasi pH 6,5-7,5 uchun, xona haroratida cooled va suzilgan, sudrab.



4 5

0.2 mol of 6-benzylaminopurine 0.1 mol of cobalt II nitrate crystallohydrate is mixed in a porcelain mortar. Grind in a mortar and mix for 3 hours. During mixing, every 10-15 minutes, the surface around the porcelain mortar and mixer is cleaned by scraping.



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