

S-XRANENIE ALKALOIDOV - INFORMATION O DIPTOKARPAMINE

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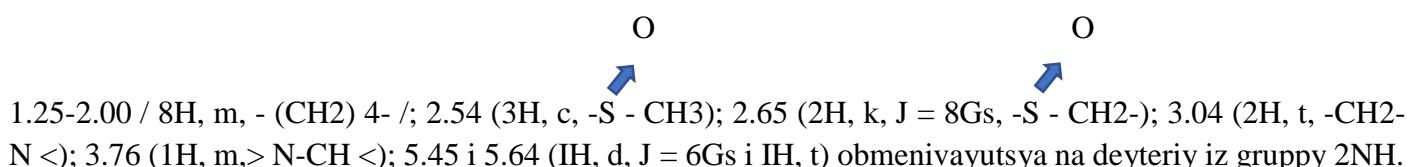
ABSTRACT

High biological activity of plant matter increases its significance in human life. Not long ago it was discovered that xorosho izuchenные prirodnye soedineniya - alkaloids - soderjat N i C.

INFORMATION ABOUT DIPTOCARPAMINE IN THE LITERATURE

Diptocarpamine is a white optically active crystalline substance with a liquid temperature of 101-1020 ° C, C₁₁H₂₄N₂O₂S (I), M + 248, chloroform, methanol, soluble in water and poorly soluble in ether, benzene, acetone. IR spectrum: I NH, 3330-3335 cm⁻¹, carbonylamide (1630 cm⁻¹) and 1045 cm⁻¹ (S → O) intensive band (synth) binding. Under the action of the flow of electrons ion M + is distributed to the following ions: 233 (32%), 218 (15), 190 (29), 185 (63), 171 (20), 162 (15), 70 (51), 61 (20), 58 (100).

Signals of molecular ions characterize the distribution of the intensity of polyisotopes, indicating the presence in the molecule of 1 atom of carbon. This is confirmed by the results of elemental analysis. Element I (CDCl₃) in the YaMR spectrum is 1.10 m.e. in the field is the signal of protons (6H, d., J = 7Gs, = C (CH₃) 2);



Oxidation of diptocarpamine Cr₂O₃ in acidic medium gives acetone, which is identified as 2,4-dinitrophenylhydrazone. Sledovatelno, soedinenie I soxanyaet isopropilnuyu group. [1] Alkaloids biureticheski reagiruyut s mochevinoy, i dannye YaMR-spectra pokazivayut, chto isopropilovyy radical svyazan s N. This fact confirms the nalichiem maximum signal 58 m / z ion in mass spectrum I. This ion (58 m / z) image rupture of ligaments (CH₃) 2-CH-NH-CO. Sledovatelno, diptocarpamine yavlyaetsya N-alkyl proizvodnym isopropilmocheviny.

During the recovery of alkaloids I rastvorom Zn in HCl was obtained optically inactive substance (II), the temperature of liquefaction kotorogo sostavlyala 108-1090 ° C, M + 232. IK-spectrum II otlichaetsya otsutstviem signals from nitrosulfoxidnoy group. Ix molecular mass 16 m.b. Raznitsa ukazivaet na to, that sulfoxigruppa byla vozvrashchena.

When gidrirovaniy diptocarpamine in the presence of nickel-renievogo catalyst bylo polucheno amorphous substance (III) with temperaturoy oijeniya 79-800 ° C. The difference in the molecular mass of diptocarpamine with veshchestvom III III, 62 m₃ t) in the spectrum of YaMR, the division of the group CH₃-S → O vo vremya kataliticheskogo hidrirovaniya i vozvrat etoy obligatsii. YaMR spectrum and data mass spectra Stati III (M-15) +, (M-29) +, (M-43) +, (M-57) +, (M-71) + i (M-85) . nalichie + ukazivaet na to, chto vtoraya alkylnaya gruppa predstavlyaet soboy H-geksil [2].

Ishodya iz ximicheskix izmeneniy i spektralnyx dannyx, veshchestvo I predstavlyaet soboy N-isopropyl-N-6-methylsulfoxy-n-geksilmochevinu, struktura kotorogo opredelyaetsya formuloy I.

REFERENCES

- 1) Abdilalimov O.A., Abdullaev Yu.A., Aripova S.F. // Chemistry prirod.Soedinenie 1980 № 3. S.365-370.
- 2) Aripova S.F., Abdilalimov O. // Chemistry prirod.soed. V 1992.