

NMR studies of steroids with heterocyclic rings in the side chain and their reductive derivatives

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The method of NMR correlation spectroscopy is widely used today in molecular design, studying molecular complexes, organometallic compounds. As part of our heterocyclic steroid derivative studies, the steroidal compounds containing isoxazole (**1-5**), dihydrofuran (**11**), tetrahydrofuran rings (**9-10**) or β -dicarbonyl fragment (**6-8**) in the side chain were prepared. The structure of products and configuration of newly formed chiral centers were confirmed by NMR correlation spectroscopy. Application of modern HSQC, COSY, HMBC, TOCSY and NOESY technics of NMR spectroscopy allowed us to complete full assignment of signals in the NMR spectra of studied compounds and to elucidate their structure comprehensively.

