

POSTER PRESENTATIONS

SYNTHESIS OF DERIVATIVES OF 1-ARYL-1,2,3,4-TETRAHYDROISOQUINOLINES

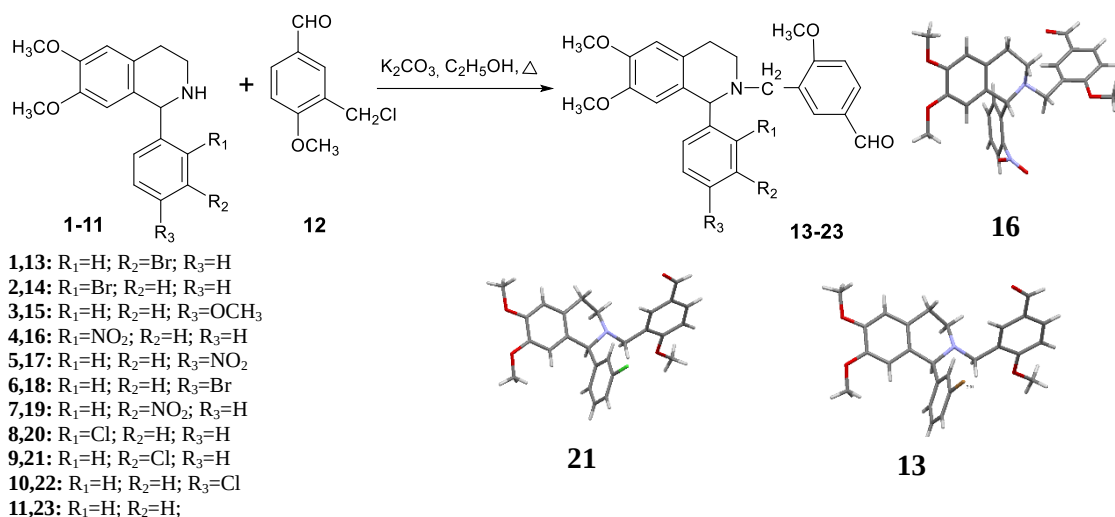
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Currently, nitrogen-containing heterocyclic compounds are considered one of the most important and rapidly developing areas of organic chemistry. Among them, isoquinoline and its derivatives are of particular significance due to their unique chemical structure, high reactivity, and broad biological activity. These compounds are widely used in pharmaceuticals, medicine, agrochemistry, and fine organic synthesis, making the development of new, efficient, and environmentally safe methods for their synthesis one of the most relevant scientific challenges. Targeted modification of the isoquinoline framework allows the preparation of compounds with new physicochemical and biological properties.

1-Aryltetrahydroisoquinoline derivatives (1–11) were dissolved in ethanol in a round-bottom flask. To the resulting solution, equimolar amounts of 3-chloromethyl-4-(methoxy)benzaldehyde (12) and potassium carbonate were added sequentially. The reaction mixture was stirred under reflux at the boiling temperature of ethanol for 4–6 hours using a magnetic stirrer. The progress of the reaction and the purity of the obtained compounds were monitored by thin-layer chromatography (TLC) on Silufol L/W 10×20 cm, 254 nm plates. A chloroform:methanol (16:1) solvent system was used for chromatography. Spots were visualized using an iodine chamber and Dragendorff's reagent. After completion of the reaction, the solvent was removed under reduced pressure. The residue was extracted with chloroform and dried over anhydrous sodium sulfate. The obtained products (13–23) were recrystallized from acetone. The structures of the synthesized compounds were confirmed and established using IR, mass spectrometry, HPLC (RTT), and NMR spectroscopy.



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