

*Short report***MONITORING OF EDUCATIONAL SERVICE MARKET AS INFORMATIVE FOUNDATION OF LABOUR FORCE DEMAND AND SUPPLY PATTERN OPTIMIZATION IN TVER REGION**

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One of the key labour market microeconomical problems – is the structural discrepancy of labour force demand and supply on various characteristics (territorial, branch, professional, qualification, age, educational and other structures of labour supply are out of phase with the analogous structures of the current labour demand). The market appearance of vacant working places inadequate to the labour supply structure testifies that the market of vocational education does not meet the regional economics requirements concerning the workforce training any more.

One of the regional economics development priority orientations, which are at the intersection “science - production” is the need of systematized and integrated information on the mutual influence of educational complex and labour market. The lack of relevant information on the given problem is the factor restraining the processes of Russian education moderni-

zation at the regional level, preventing the labour resource demand and supply scaling and structure from being analyzed, evaluated and forecast in the right way, and also labour and educational service market regional features - from being studied and taken into account.

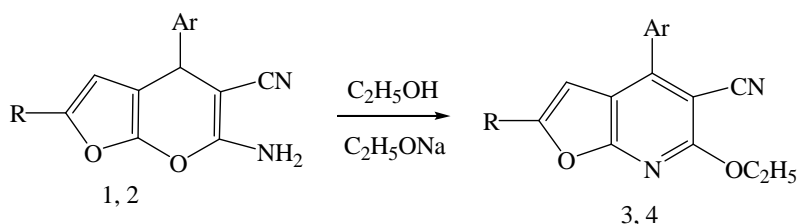
In the Tver Region within the framework of young scientists' research activities under the assistance of the Committee for Matters Concerning Young Persons the grant “Development and Implementation of Professional Education Service and Labour Markets Mutual Influence Monitoring Concept within Tver Region” is being realized. The monitoring database use affords ground for modeling and evaluating the labour resource demand and supply, projecting and correcting the regional strands of policy with regard to the solution of employment and unemployment problems, drawing attention to the priority-oriented demand for the personnel conforming to the labour market requirements. Thus, the data obtained can be used both for the minimization of possible disproportions, which emerge in the process of mutual influence of the educational service and labour markets, and making effective strategic and tactical managerial decisions on the development of the regional complex of professional education.

Materials of Conference

RECYCLIZATION OF 6-AMINO-5-CARBONITRILEFUOPYRANES UNDER THE ACTION OF NUCLEOPHILS

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6-Amino-4-aryl-2R-4H-furo[2,3-b]pyrane-5-carbonitriles are an important class of heterocyclic compounds of significant interest owing to their various chemical transformations and many opportunities of practical application (1, 2). These bifunctional compounds with cyano and amino groups



1,3 R=C₆H₅, Ar =C₆H₄-Cl-2; **2, 4** R=C₆H₄-CH₃-3, Ar =C₆H₄-Cl-2;

The reaction products were identified as 4-aryl-6-ethoxy-2R-furo [2,3-b] pyridine - 5-carbonitriles (3, 4) by their physicochemical and spectral characteristics.

The IR spectra of compounds 3, 4 contain the absorption bands of a cyano group (2215-2210 cm⁻¹), the absorption band of a -C-O-C- bond within 1130-1120 cm⁻¹, and no amino group absorption band. In the NMR¹H spectrum a series of signals in a strong field is observed within 1.40-1.45 ppm and 3.90-4.00

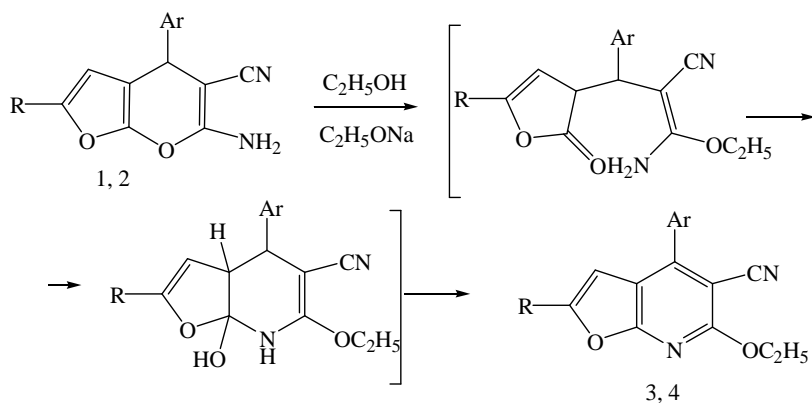
in the vicinal position are promising initial substances for synthesis of sophisticated annealed heterocyclic systems.

The synthesis of the said compounds is based on Michael's condensation of 5-aryl-3-arylmethylene-3H-furan-2-ones with malonic acid dinitrile under basic catalysis [1].

The behavior of fuopyranes 1, 2 under the action of a strong nucleophilic reagent (sodium alcoholate) was studied. The reaction was carried out at heating of equimolar amounts of sodium alcoholate and fuopyranes in an ethanol solution during 4 hr.

ppm, corresponding to the protons of an ester fragment, the singlet of a furan ring proton is shown at 6.3-6.4 ppm, the signal of the methyl group protons of the aromatic substituent (for compound 4) is about 2.35 ppm.

The formation of a pyrane cycle of compounds 1, 2 due to intramolecular interaction of the hydroxylic and cyano groups is a reversible process [2]; under certain conditions the pyrane cycle may open with subsequent cyclization.



First, nucleophilic addition of an alcoholate anion by the α carbon atom of the pyrane cycle occurs with subsequent opening of the heteroring. Further attack of the unshared electronic pair of the nitrogen atom by the electron-deficient carbon atom of the lac-

tonic system, cyclization, and aromatization result in formation of a pyridine structure.

EXPERIMENTAL

IR spectra were recorded on an FSM-1201 Fourier spectrometer in KBr tablets, the spectral range