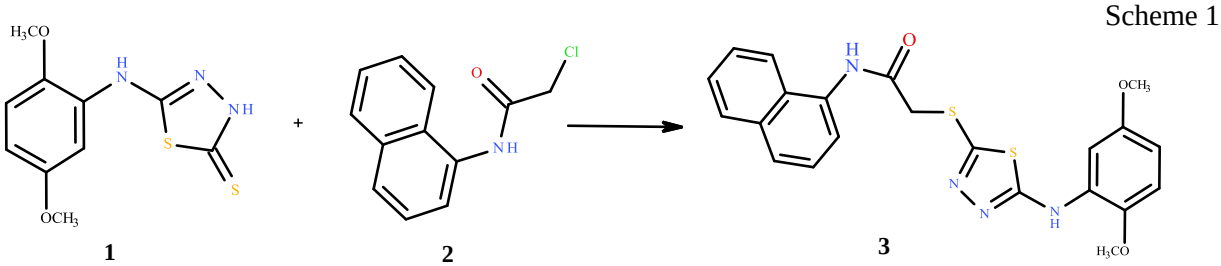
required reagents for resynthesis of the substance were obtained and purified using standard techniques. The temperature melting points were determined using the appliance Electrothermal IA9100X1 (Bibby Scientific Limited, UK). Elemental analysis of the nitrogen content was performed by the Dumas method. UV spectrum was taken on a "Thermo Fisher Scientific EVOLUTION 60S" device in ethanol within the wavelength range 190-1100 nm. ^{1}H NMR spectra were recorded on a Varian Mercury 200 MHz device, solvent - DMSO-d6, tetramethylsilane (TMS) was used as an internal standard. The chemical shifts were shown on the scale д (ppm). Reaction control and substance identity were performed by TLC on Silufol UV-254 plates. Detection of the chromatogram was carried out in the UV rays of the device "Irradiator chromatographic UVC 254/365" (mode 254 nm). The purity of the synthesized compounds was confirmed by TLC method using Sorbfil plates in a solvent system of toluene-acetone-ethanol-ammonia (45: 45: 7: 3). Quantitative determination: the precise mass of the test substance (0,100 g) was dissolved in 20 ml of glacial acetic acid, stirred until complete dissolution and titrated with a 0.1 M solution of chloric acid with potentiometric determination of the end point of the titration. The quantitative determination was performed using 702 SM Tetrino "Metrohm" automatic titrator (Switzerland) with a volume of 10 ml burette.

Results and discussions. 2-((5-((2,5-Dimethoxyphenyl)amino)-1,3,4-thiadiazol-2-yl)thio)-N-(naphthylene-1-yl)acetamide 3 was synthesized by alkylation of 5-(2,5-dimethoxyphenyl)amino-1,3,4-thiadiazole-(*3H*)-2-thione 1 by α-naphthalanilide 2 of chloroacetic acid with short-term heating of the starting components in equimolar proportions in aqueous-ethanol medium in the presence of an equimolar KOH amount according to the scheme:

Scheme 1



1 **2** **3**

The purity test, namely the determination of the accompanying impurities, was carried out using thin-layer chromatography. Elemental analysis, UV and ^{1}H NMR spectroscopies were used for identification and qualitative reactions were performed for the corresponding functional groups according to the SPhU.

For quantitative determination of the active substance in the substance 3, a volumetric method, acid-base titration in a non-aqueous medium, was used. The main advantage of this method is to identify with sufficient accuracy very weak bases, their salts and multicomponent mixtures usually without first separating them.

Conclusions. The synthesis was performed and the methodology for quality control of promising substance of 2-((5-((2,5-dimethoxyphenyl)amino)-1,3,4-thiadiazol-2-yl)thio)-N-(naphthylene-1-yl)acetamide with diuretic activity was made.

SIMULTANEOUS SPECTROPHOTOMETRIC DETERMINATION OF IRON(II) AND TOTAL IRON WITH 1,10-PHENANTHLOLINE

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Introduction. When 1,10-phenanthroline is added to a solution containing both iron(II) and iron (III), a reddish orange iron(II) complex and a yellow iron(III) complex form immediately. The iron(II) complex has an absorbance maximum at 512 mμ, at which wave length there is little absorption by the

iron(III) complex. The two complexes have identical absorbance coefficients at 396 mμ. A method is presented for the determination of iron(II) and total iron in the same solution by simultaneous measurements of absorbance at 396 mμ and at 512 mμ.

Aim. In the method for the simultaneous determination of iron(II) and total iron reported in the present paper, advantage is taken of the difference in the absorption spectra of the reddish orange iron(II) and the yellow iron(III) complexes which are formed instantly on the addition of 1,10-phenanthroline to a solution containing these ions.

Materials and methods. Weigh out a 300.0 mg sample and dissolve it in distilled water slightly acidified with sulfuric acid. Dilute to 250 cm^3 in volumetric flask. Each sample then should be analyzed immediately without interruption.

Withdraw three 1 cm^3 aliquots and place each in a separate 25 cm^3 volumetric flask. Add 10 cm^3 of 0.3% 1,10-phenanthroliae solution, buffer with 5 cm^3 of 0.2M potassium biphthalate solution, and dilute to the mark with distilled water. Read the absorbance of each solution at 396 mμ and 512 mμ as soon as possible and not later than 30 minutes after the complexes are formed.

Results and discussion. Determine the concentration of total iron and the approximate concentration of iron(II) from standard concentration curves at 396 and 512 mμ, respectively. Obtain the approximate concentration of iron(III) by difference. Find the absorbance value corresponding to this approximate concentration from the standard curve for iron(III) at 512 mμ to obtain the corrected concentration of iron(II) from the appropriate standard curve. For the correct concentration of iron(III), subtract the corrected concentration of iron(II) from the concentration of total iron already determined. The results are not changed appreciably by a second approximation.

Results of analyses by the 1,10-phenanthroline method are in good agreement with results obtained independently by a method involving accepted procedures of high accuracy. Comparison of results from these methods is particularly advantageous because in one case iron(II) is determined directly and iron(III) gotten by difference, whereas in the other case the determination of iron(III) is direct and that of iron(II) is by difference.

The concentrations of total iron determined with 1, 10-phenanthroline are in close agreement with values obtained with T iron. This indicates that, although the absorbance coefficient of the 1,10-phenanthroline complexes at 396 mμ is relatively small, absorbance measurements at this wave length give satisfactory results for total iron.

Conclusions. The method presented in this paper is to be recommended for its simplicity. Two simultaneous spectrophotometric measurements on the same solution are sufficient for an analysis. No preliminary steps such as reduction, oxidation, or extraction of the sample are necessary.

DEVELOPMENT OF METHODS FOR CONTROL THE QUALITY OF ARGIRELINE IN PATCHES UNDER EYES

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Introduction. Wrinkles are visible creases or folds in the skin and they are often the first sign of ageing. Changes in physical appearance due to wrinkles can have a negative effect on the quality of life. In some cases, concerns over physical appearances can affect personal interactions, occupational functioning and self-esteem. For nowadays patches under eyes have been one of the most popular and commonly administered compounds to reduce wrinkles for women of all world. And from previous studies proved, that argireline is a mimetic of Botox, but has been found to be safer than Botox and effective in reducing wrinkles. Thats why development of technology for patches with argireline has