

antidepressant activity in The Porsolt swim test (PST) (The behavioural despair test). The animal have placed into the cylinder for 5 min and we register the active and passive swimming and the time immobilization. The increase of the time active swimming and the decrease of the time immobilization are considered as antidepressant effect.

Discussion results: The result of research found that the average time of movement of animals from the experimental groups exceeds the movement of control group and comparative groups. The comparison drug showed a significant increase of the average time of movement to 27%, the liquid extract of eleutherococcus to 46%, the eleutherococcus eleutheroside B1 to 51% and the Eleutherococcus syringin to 62% on the value of water control. By comparing the test substances with amitriptyline we found that the liquid extract of eleutherococcus and eleutheroside B1 nonsignificant increase the average time of the movement of animals to 15% and 19% respectively and the administration of syringin increase significant the activity of rats to 27%.

Conclusion: As a result of experiments we found that the active substances syringin of the Eleutherococcus senticosus has antidepressant effects. The liquid extract of Eleutherococcus senticosus and eleutheroside B1 exert antidepressant activity similar to the action of amitriptyline in dose of 5 mg/kg. The antidepressant activity of the experimental substances syringin and eleutheroside B1 is pronounced.

Key Words: Eleutherococcus senticosus, phenylpropanoids, syringin, Porsolt swim test.

360. THE USE OF ATOMIC ABSORPTION SPECTROSCOPY FOR THE DETERMINATION OF CALCIUM IN DAIRY PRODUCTS

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Introduction: Calcium is a mineral present in the highest quantity in the human body and has several important functions. Over 99% of total body calcium is in the bones and joint, which are designed to support the structure. The remaining 1% is present in the blood, muscle and intercellular fluids. Dairy products are the best sources of calcium in the diet, therefore, the health authorities recommended to drink three glasses of milk per day. The calcium content in dairy products is different depending on several factors.

The purpose of this study is a quantitative assessment of calcium in various milk products using a contemporary instrumental method - atomic absorption spectroscopy (AAS). The basic principle of atomic absorption measurements is background radiation attenuation due to absorption in the sample atomized. Relationship between initial and attenuated radiation gives information about the concentration of the element in the test sample.

Materials and methods: 1% fat milk, 2% fat yogurt, skimmed yogurt, atomic absorption spectrometer ICE 3300, lanthanum oxide, calcium carbonate, tableware and household utensils laboratory. Evaluation of the calcium content was carried out based on the standard curve.

Results and discussions: Samples for analysis were prepared by homogenization of the products under study with lanthanum oxide solution 10% dilution without extraction with mineral acids. The calibration curve was linear one, characterized by the regression equation $y = c + 0.1999 \cdot 0.4085 \cdot$ coefficient of correlation $r = 0.9997$. The calcium content in milk was 987,62mg / l, yoghurt 2% - 1104.76 mg / L, skimmed yogurt-1095.23 mg / l. The results were compared with references and shows an acceptable correlation values. Considering the compromise made between cost and required sensitivity, flame AAS technique can be considered suitable for the determination of calcium.

Conclusion: It was used a simple method for preparing samples for spectroscopic measurements that allowed precise evaluation of the calcium in dairy products. The method can be recommended for routine analyzes.

Keywords: calcium, dairy products, atomic absorption spectroscopy.

361. CUCUMIS SATIVUS L. PHARMACEUTICAL EXTRACTIVE FORMS

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Introduction: Since ancient times, men and women have always had a desire for a better appearance and beauty, a wish that is still genuine and nowadays. Throughout the years, recipes, dishes and cosmetics, that were more or less available for this purpose, have been used. One of the widely cultivated plant, with many important benefits for health and skin tone improvement is *Cucumis sativus* L.

Materials and methods: The study is based on botany, macroscopic, microscopic and histochemical exam of the product; obtaining the extracting aqueous and alcoholic solutions by various extraction techniques, provided in the specialty literature (infusion, decoction and soak); the use of extracting aqueous and alcoholic solutions to obtain cosmetic lotions depending on the type of skin tone; determine the point of saturation of the vegetal product.

Discussion results: Based on the extracting aqueous and alcoholic solutions, cosmetic lotions for every type of skin tone were obtained also, there were determined the organoleptic characteristics and their pH. It has been found that the aqueous solutions lost their stability, crossing from a slightly acid pH (pH=5.5) to acid pH (pH=3-3.5). Cosmetic lotions which were based on extracted alcoholic solutions have kept both their organoleptic characteristics and pH value during the whole period of study (30 days).

Conclusion: *Cucumis sativus* L. is recommended to be used in obtaining cosmetic emulsions, given the fact that it shows good results.

Key Words: *Cucumis sativus* L., solutions, extraction, skin, cosmetic, toning.