

## ABSTRACT&REFERENCES

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### APPLICATION OF CYTOGENETIC RESEARCHES IN EFFICIENCY ASSESSMENT OF VACCINES AGAINST LEUKEMIA VIRUS IN CATTLE

**p. 6-9**

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*We studied the effect of immunogens of the leukemia virus in cattle on the cytogenetic parameters of bone marrow in the dynamics of immunogenesis. We found that each drug has its own specific effect, which is due to the structural differences of the leukemia virus in cattle. The method of cytogenetic studies of bone marrow cells should be used to assess the safety and immunogenic properties of retroviral origin drugs*

**Keywords:** genetic monitoring, cattle leukemia virus, immunogenesis, mice, bone marrow cells

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### METHODICAL BASE OF INSTITUTIONAL SUPPORT OF MARITIME SHIPPING DEVELOPMENT

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*The world experience of institutional provision of effective functioning and development the shipping industry is analyzed in the research. Specific features of taxation in three main types are defined: the taxation of tonnage, modes of stimulating the development of shipping and favorable tax regimes. The differences between the Dutch and the Greek model of tonnage taxation by main indicators are determined. Recommendations are given to determine the direction of reforming the taxation of the Ukrainian shipping industry*

**Keywords:** maritime transport services market, tax regimes, cargo ship capacity, taxable profit

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## STUDY OF JEWELRY AND ACCESSORIES AS A MEANS OF COMMUNICATION IN A POLITICAL “THEATER”

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*It is shown that one of the ways to increase the effectiveness of communication in the political sphere is its theatricalization. In this process a special role is played by jewelry and costume accessories. They are used not only as an addition to the image of politicians, but also for the transference of specific information messages, and for activating public discussion on topical issues*

**Keywords:** sociocultural communication, politics, theater, jewelry, accessories, information, interpretation, public discussion

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#### **IMPROVING THE ITEM TO ITEM ALGORITHM OF COLLABORATIVE FILTRATION METHOD FOR THE DEVELOPMENT OF RECOMMENDATION SYSTEMS BASED ON THE COSINE MEASURE BY RELEVANT ASSESSMENT**

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*The analysis of comparative results of reference systems on the basis of the Tanimoto correlation coefficient in comparison with the "item to item" algorithm of collaborative filtration with the help of relevant assessment is presented. Data for surveys in the form of users with unique IDs are formed. Algorithm of collaborative filtration is based on a cosine measure, which represents the similarity of objects as a cosine between the vectors of purchases in the matrix of users and objects*  
**Keywords:** correlation, cosine, collaborative, filtration, vector, Tanimoto, user, ID, URL

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## INVESTIGATION OF IMAGES OF ATTRIBUTE-MAKING ELEMENTS OF «CRACK»-TYPE DEFECTS

p. 24-29

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*The paper presents the results of an investigation of the elements of the “crack”-type defects from the point of view of the formation of characteristics characterizing their adjacent zones. This approach allows to take into account not only the actual crack, but also the generated defects in the area of its localization. The obtained results can be used in the construction of monitoring systems, recognition and identification of defects for the assessment of the state of construction sites, as well as for monitoring systems for the formation of cracks*

**Keywords:** crack, sign, image, element, observability, area, root, ravine, monitoring, identification

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## CREATION OF PSPS REVERSE HYDRAULIC UNITS IN STRUCTURE OF SYSTEMS OF POWER SUPPLY OF THE IRON ORE INDUSTRIES

p. 29-36

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*Problems of search of the directions and evaluation of the generalized level of sufficiency of using power potential of the iron ore industries are considered. It is proven that possibilities of increase in the level of using power potential of these types of the industries by application of organizational measures are exhausted.*

*The iron ore industries should find new, non-traditional directions of increase in energy efficiency. It is assessed that restructuring of complexes of drainage systems of mines in*

*reversible hydraulic units – pumped storage power stations – can be one of effective measures in this direction*

**Keywords:** energy efficiency, pumped storage power stations, power engineering, power potential, drainage, iron ore mines, reversible hydraulic units

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**DEVELOPMENT OF FORMAL THEORY OF ARTICLES OF THE LAND CODE OF UKRAINE AND ITS ALGORITHMIZATION**

p. 37-39

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*The actual task of using ontological engineering of land relations is presented in the article. On the example of article 162d of the Land Code of Ukraine, the possibility of constructing mathematical constructions characterizing land relations with the help of the logic of predicates is shown. The formal theory based on the logic of predicates and production rules of the problem of determining the degradation of a land plot and their algorithmization is formed*

**Keywords:** formalization, predicate logic, algorithm, program, product rules, land relations, axiom

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## THE DEVELOPMENT OF PERIODIC FUNCTIONING WOOD STOVE AS ALTERNATIVE SOURCE OF PRIVATE HOUSE HEATING

p. 40-43

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*A literary review of modern energy sources that can be used for heating a private house is conducted. Their main advantages and disadvantages in the conditions of the current energy situation are indicated. The design of a wood stove of periodic functioning as an alternative heating source is proposed. The temperature field of stove working surface is carried out. The optical pyrometer is used during experiments. The optimum number of rolled lining sections with fire-resistant brick is determined*

**Keywords:** natural gas, electric energy, wood stove, temperature field, optical pyrometer

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## ANALYTICAL MODEL OF THE VESSEL FUNCTIONING ON THE BASIS OF THE LOADING INFORMATION SYSTEM DESIGNING

p. 43-49

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*The analytical model of the vessel functioning is proposed, which includes the development of a new information loading system and the solution of the optimization task for the effective placement of the biological protection module for the transportation of radioactive substances along with other cargoes by the criteria for minimizing the laytime of a line trip. The optimization is carried out by solving the classical satchel problem, for the implementation of which a genetic algorithm is used*

**Keywords:** model of ship functioning, information system, optimization task, laytime, radioactive cargoes

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## ANALYSIS OF PHASE DIAGRAMS OF THE TWO-FREQUENCY PENDULUM AS MODELS OF ROTATIONAL VIBRATIONS OF WATER MOLECULES

**p. 50-56**

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*An analysis of the rotational vibrations of water molecules is made using the model of a two-frequency pendulum in the region of a change in the type of its oscillations. Peculiarities of the phase diagrams, trajectories and velocities of the pendulum during the transition from independent two-frequency oscillations to ellipse-like oscillations analogous to the rotations of water molecules around the bond axes in the inhomogeneous field of intermolecular interaction forces are revealed*

**Keywords:** water molecule, two-frequency oscillations, type of oscillations, inhomogeneous field of forces

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**PROTECTION OF RUSKA (UKRAINIAN)  
LANGUAGE USAGE AT SCHOOL AT PEOPLES  
MEETINGS AND ASSEMBLIES ON THE TERRITORY  
OF THE EASTERN HALYCHYNA DURING THE  
AUSTRIAN-HUNGARIAN MONARCHY**

**p. 57-64**

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*The reasons for losing the status of the Ukrainian language as governmental and regional are briefly explained. The situation around the functioning of the Ruska (Ukrainian) language at schools in the Eastern Halychyna region is analyzed. The resolutions adopted at public gatherings and meetings held in Lviv during the second half of the 19th century are presented. The views of representatives of the Ruska intelligentsia on the status of the Ruska language at schools are analyzed*

**Keywords:** language learning, Ruska (Ukrainian) language, Polish language, school, Halychyna Ukrainians, Poles

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