
ABSTRACTS

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STIRLING ENGINE AND RENEWABLE ENERGY SOURCES

(pages 21-24)

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Keywords: stirling engine, renewable energy sources (RES), biomass

Abstract: The paper introduces the image of the functioning of fundamental thermodynamic processes that are required for the gas working action. It systematizes the application forms of renewable energy resources and also their potential for objective topic. The application of the objective technology is developed by various technical devices that demand their further development in order to improve the utilization. The major attention is paid especially to the solar radiation which represents the renewable resource of energy as well as it becomes the supporting element of other forms, for instance biomass, the wind energy, etc. The paper is at the place of biomass potential valuation, as well. There would be possible to start the revolution in the scope of the individual electrical industry in Slovak republic by partial biomass application on the objective technology.

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BASIC PRINCIPLES OF SAMPLE PREPARATION FOR PROTEOMIC ANALYSIS

(pages 25-28)

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Keywords: proteins, proteomics, sample preparation

Abstract: Proteomics studies and evaluates all proteins found in cells, tissues, organisms in terms of quantity, structure, function, and their interaction. An important step in this discipline is the preparation of the studied sample. Proteomics evaluates the samples obtained from patients from body fluids and tissues, this step is the starting point of the whole methodology.

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SURFACE TOPOGRAPHY OF COMPOSITE REINFORCED WITH FIBRES FROM USED TYRES

(pages 29-32)

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Keywords: atomic force microscopy, used tyres, matrix, polyvinyl butyral, PVB

Abstract: This paper aims to study the surface topography of composite reinforced by fabric from used tyres. By the research was used an atomic force microscopy (AFM). AFM can drive the force between the sense probe and the surface and the in Z axis can move piezo and sensor. The composites were reinforced with fibres from used tyres. After homogenization the thermoplastics matrix and fibres from used tyres we pressed test specimens and after this technology was material tested by atomic force microscopy. Generally we can say, therefore, it provides important information about the surface of the display material and its properties that are necessary to know for the further examination, in particular for of utilization the material and displayed by using atomic force we can get a clearer idea of the investigated materials and other behavior in a various mechanical tests.
