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## 24<sup>TH</sup> OF MAY – DAY OF THE BULGARIAN ENLIGHTENMENT AND CULTURE AND OF THE SLAVIC ALPHABET

Michail Videnov: The Bulgarian Language from the Time of Saints Cyril and Methodius until today

THE BULGARIAN LANGUAGE FROM THE TIME OF SAINTS CYRIL AND METHODIUS UNTIL TODAY

Michail Videnov

### Abstract

This text is created and presented as a report to the academicians and corresponding members of the Bulgarian Academy of Sciences on the occasion of the day of the Slavic Alphabet and Bulgarian culture - May 24th. In the established tradition, the key dates in the life of Cyril and Methodius are recalled, taken from their Extensive Biography, but the emphasis is on their scientific and life achievements: creating a new alphabet (Glagolitic), translating from Greek the main religious books and then with real courage imposing in front of the Pope the Old Bulgarian language as sacred, breaking the reigning trilingual. It further examines the reasons why the Bulgarian language stepped away in a grammatical and lexical sense from the other Slavic languages, ie it lost case endings, acquired article forms, increased the number of verb tenses, etc. It is shown that in this direction went the other Balkan languages with which the Bulgarian people interacted during the Byzantine and Ottoman rule. The period after the Renaissance is also included, with an emphasis on modern use. It is argued that it is wrong to look for causes of the unsatisfactory contemporary speech culture in the language: the reason is in the culture of the persons falling under the spotlight of the media.

11 May

WORLD SCIENCE

Nikola Balabanov: Aristotle as a Teacher and an Organizer of intellectual Activities

ARISTOTLE AS A TEACHER AND AN ORGANIZER OF INTELLECTUAL ACTIVITIES

Nikola Balabanov

Abstract

The great philosopher of antiquity Aristotle whose 2400<sup>th</sup> anniversary mankind notes this year has left a huge legacy of systematized knowledge in all areas of science. In this article are reviewed his contributions to the organization of education and research in that era, which today can serve as a model in the management of intellectual activity of people: teaching methods, communication between teachers and students, involvement of students in research, highlighting the importance of free time for creativity and more.

## WORLD CATASTROPHES

Ivelin Kuleff: The Catastrophe in Chernobyl – 30 years after

THE ACCIDENT IN CHERNOBYL – 30 YEARS AFTER

Ivelin Kuleff

Abstract

In the present paper is presented some of the reason of the accident happened in Chernobyl. It is also given some explanation of different concept in the reactor building. There are presented also the results of different illness causal from the accident in Chernobyl. There is presented also the situation in Bulgaria and the misbehaviour of the government in that time.

## SCIENTIFIC RESEARCH

Tsvetan Dachev et al.: Participation of the Space Research and Technologies Institute – BAS in the Project ExoMars

### PARTICIPATION OF THE SPACE RESEARCH AND TECHNOLOGIES INSTITUTE-BAS IN THE PROJECT EXOMARS

Tsvetan Dachev, Jordanka Semkova, Rositsa Koleva, Borislav Tomov, Yuri Matviichuk, Plamen Dimitrov, Stefan Malchev, Nikolai Bankov

#### Abstract

The paper is dedicated to the Bulgarian participation in the ExoMars project mutually developed between the European Space Agency and the Russian Roscosmos-State-Corporation. The first part of the paper overviews the different sources of space radiation as galactic cosmic rays (GCR), solar energetic particles (SEP) and trapped radiation in the Earth radiation belts. In the second part are remembered some of the most important former space projects of the SRTI. In the third part is described the two different stages of the ExoMars project: The 2016 mission (launched in space on 14 March 2016) is composed of the Trace Gas Orbiter (TGO) and an Entry, Descent and landing demonstrator Module (EDM), known as Schiaparelli. The 2020 mission includes a rover that will carry a drill and a suite of instruments dedicated to exobiology and geochemistry research. The Fine Resolution Neutron Detector (FREND) instrument was proposed by Roscosmos and will measure thermal, epithermal and high energy neutrons with energies ranging up to 10 MeV, whose variations are an excellent signature of hydrogen bearing elements presence in the regolith at up to 1 meter depth. The FREND's dosimeter module (specified as Liulin-MO particle telescope) provides measurements of the dose and the flux of charged particles every minute and measurements of the energy deposited and the linear energy transfer spectra every hour. This will provide information for the radiation environment on the orbit around Mars. The "Liulin-MO" device contains two pairs dosimetry telescopes, arranged in two perpendicular directions. Each pair of telescopes comprises two semiconductor detectors with a thickness of 300 microns and an area of 2 cm<sup>2</sup>. The main measured parameter is the amplitude of the pulse after the preamplifier, generated by a particle or a photon partially or fully crossing the detector. The amplitude of the pulses is proportional to the energy deposited in the detector and to the dose, respectively. These amplitudes are digitized and organized in a 256-channel deposited energy spectrum. Operation of the device is controlled by a microcontroller. The dimensions of the dosimeter are 160x100x45 mm, and weight is 0.7 kg. The analysis of the first data received after 5<sup>th</sup> of April 2016 from the Liulin-MO dosimeter, show that it functions normally provided in all operating modes. Obtained data on radiological conditions in interplanetary space at a distance of about 7.5 million km from Earth show the following values: The average measured dose of galactic cosmic rays is 15 mickrogrey per hour; The average particle flux is 2,9 particles per square centimeter per second. These values close coincide with similar measurements performed on American satellites. The last part of the paper lists the future space missions, in which the team from the Solar-Terrestrial Physics section of SRTI will participate.

## SCIENCE AND ETHICS

Orlin Stefanov: Scientific Criticism – Diatribe, Apologetics or Reflection?

### SCIENTIFIC CRITICISM – DIATRIBE, APOLOGETICS OR REFLECTION?

Orlin Stefanov

#### Abstract

By default, the scientific criticism must be unbiased, and for being competent, it must detect the already proven truths, revealing the perspectives of the newly absorbed cognitions. Though, if those dictums express what is the “ideal”, in practice some of the contributions are either promoted or declined through dictatorship, meaning they are “ordered”. For the scientific communities what could be useful is the critical thinking, to position the observers into a neutral perspective and to lead them towards new thoughts, towards new truths, which might be even out of the scope of the author and the researched material.

Key words: Impartiality, objectivity, critical thinking. Hristo Botev, Zahari Stoyanov, Pencho Slaveykov, Geo Milev.

## GLIMPSE AT THE PAST

Konstantin Kossev: Military and Political Dimensions of the April Uprising

### MILITARY AND POLITICAL DIMENSIONS OF THE APRIL UPRISING

Konstantin Kossev

#### Abstract

April uprising is a kind of war. However it has a clear political purpose. This requires in its overall interpretation and evaluation to keep the balance between the military and the political dimensions.

In the historical literature dominate the military events which in some way misinterpret the results of the uprising showing it as unsuccessful adventure.

The article tries to make a balanced analysis between the military and the political aspects of the uprising. In this respect it points out that although losing against the superior force of the enemy in the unequal battles, the rebels achieve their political aim and actually they win in the declared on the Ottoman Empire.

Thanks to the April uprising occurs Knyazhestvo Bulgaria

Vladislav Parhomenko: The events of the First World War in Publications of the Russian Empire (1914–1916)

THE EVENTS OF FIRST WORLD WAR IN PUBLICATIONS OF THE RUSSIAN EMPIRE (1914–1916)

Vladislav Parhomenko

Abstract

The article analyzes the events of the Great War in 1914–1916, Russian publications. The basic directions of the literature of those years: the official monarchist publications; liberal content of the work; mass propaganda, „cheap popular” literature. It is displaying its ideological component, the impact on the public opinion in Russia.

Key words: First World War, the sources, publications, ideology.

Vladimir Gamza: Famous Bulgarians from Tryavna – graduates of South Slavic boarding school in town Nikolaev

FAMOUS BULGARIANS FROM TRYAVNA – GRADUATES OF SOUTH SLAVIC BOARDING SCHOOL IN TOWN NIKOLAEV

Vladimir Gamza

Abstract

The article deals with the famous natives of Tryavna, who studied at the famous South Slavic pension in Nikolaev during the Renaissance. Thanks to the efforts of the founder and owner of the boarding school of Todor Minkov, about 800 trained young men came out of there – there markable part of the Bulgarian intellectuals. Among them are well-known people from Tryavna: writer and military journalist Racho Slaveykov, his brother – a politician and a lawyer Christo and Patriarch of the Bulgarian chemical science academician Pencho Raykov. Trevnetsy studied in Nikolaev gymnasium and Nikolaev real school. The knowledge obtained in these institutions and education in the boarding school allowed them to make a successful career and contribute to the development of their country.

Keywords: trevnetsy, pension, gymnasium, specialized school, students, learning, adaptation.

## THE FLOOR TO THE YOUNG PEOPLE

Evelina Mitkova: Human Perception of Architectural Interior Space

### HUMAN PERCEPTION OF ARCHITECTURAL INTERIOR SPACE

Evelina Mitkova

#### Abstract

Detailed study of the meanings of the various basic elements of interior space, will answer questions related to the specifics of perception of living space. Thereby, this will allow to design spaces that convey a definite positive impact on people.

We will have the opportunity to build rooms with individual character, so these spaces have finished only in the presence of people for which they are built.

The space is constructed of shapes that affect us emotionally. The symbols that are intertwined in interior space have diverse meanings as are diverse their emotional effects on people.

All this boundlessness and freedom in modern architectural works, however, may have negative consequences for us, if they are designed without complying with aspects related to the specifics of perception.

Nikola Karavassilev: National competition „Young Talents“ 2016

## SCIENTIST THOUGHTS

Nina Bakardjieva: Mankind and the Worlds Around It

MANKIND AND THE WORLDS AROUND IT

Nina Bakardjieva

Abstract

Planet Earth Mankind live astride a multitude of close and faraway worlds; existing among them thanks to the cognitive power of its intellect. People in their daily lives perceive only a tiny fraction of those worlds: only the ones that are key to their very existence. However, there are many intangible dependencies of the under- and overlying worlds that have an impact on people as well as on the societies and civilizations created by them both in the past and future. The legacy of mankind presents irrefutable evidence to that conclusion. Knowledge about close and faraway worlds, about the mysteries of ancient civilizations can help mankind find its humble place in that huge and subtle Universe. And also help it find its way to creating its own future on Planet Earth.