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**FACULTY OF PRE-UNIVERSITY EDUCATION**

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| 1 | Totemic views in the anthroponomical picture of the world Review of European Studies  | DOI:[10.5539/RES.V7N6P239](https://doi.org/10.5539/RES.V7N6P239) | In our country, strengthening the independence and the entry of our country in a number of civilized countries, comprehension of the principles of national, moral and material values, and problems of their realization are vital nowadays. And this in turn requires the culture development; people pass their experiences, achievements in the development to future generations, as well as the progressive traditions of culture. Now consider the language picture of the world in general human cognition in the unity of the world model, and with the same conceptual view of the world is a philosophical and philological concept. The study “Language world” and “Conceptual picture of the world” in the trinity “Language-thought-world” is one of the urgent problems of modern linguistics. Language world—a specific method for the language of reflection and representation of reality in language forms and structures in its relation with the person who is the central figure of the language. From this point of view, we will consider the totem animal of Turkic peoples, including the ideological character of phraseology associated with the totem “blue wolf” and “Bear”. | Rysbayeva, G., Erhozhina, S., Bainesh, S., Sadenova, A. Totemic views in the anthroponomical picture of the world Review of European Studies Vol. 7, No. 6; 2015.р. 239-243<https://ccsenet.org/journal/index.php/res/article/view/48081>  |
| 2 | [Using innovative technologies in project method of teaching foreign language](https://www.scopus.com/record/display.uri?eid=2-s2.0-85019615651&origin=inward) Espacios 2017. 38, с. | Corpus ID: 114665373 | In this article the meaning of a method of teaching a foreign language and its using in practice are discussed.This article discusses using innovative techlologies inproject method of teaching foreign language. Thisarticle provides various guidelines, corresponding todifferent stages of training. Interactive forms areoffered for the formation of various speech trainingskills. The system of exercises presented in this articlecontributes to the development of oral communication.Teaching is a complex and multi-pronged process. Theactivities of the teacher should be aimed to maximizethe learning process. Taking into account thesemoments they allow the teacher build a classmethodically competence, adjust their pace, alternateforms of work that means to intensify the activities ofthe students. Communicative principle, which becamethe base for most of didactic concepts and successfully implemented in almost all stages of education, strengthened ties methodology and linguistics largely,increased interest in teaching communicative Process parameters. In the article, various methodic recommendations are provided, which correspond to various stages of education. They give attention not only to linguistic form of expression, but to informal form. Interactive forms of teaching are proposed for speaking. System of exercises, provided in the article, contributes to development of oral communication. | [Sadenova, A.E., Orazakynkyzy, F., Anuar, S., Yesbulatova, R.M. Using innovative technologies in project method of teaching foreign language](https://www.scopus.com/record/display.uri?eid=2-s2.0-85019615651&origin=inward) Espacios Vol. 38 (Nº 25) Year 2017. Page. 1<https://www.revistaespacios.com/a17v38n25/a17v38n25p01.pdf>  |
| 3 | [Comparative analysis on digital diplomacy in Kazakhstan, Uzbekistan and Kyrgyzstan Astra Salvensis](https://www.scopus.com/record/display.uri?eid=2-s2.0-85047139055&origin=inward) 2018. 6, с. 321-332 |  | Digital diplomacy is a new and developing tool of public diplomacy. In 21st century, where information is the most powerful tool of politics, importance of the study of Digital Diplomacy increases for a several times. The purpose of this article is to analyze such concepts as public diplomacy, digital diplomacy and media diplomacy in the context of contemporary international relations. Also, the authors of the study conducted a comparative analysis of the involvement of diplomatic services of 3 countries (Kazakhstan, Uzbekistan, and Kyrgyzstan) in the sphere of digital diplomacy. In the course of the work, a scoring assessment of the positions of countries in international and national rankings was conducted. Statistical data were compiled for each country, which allowed obtaining the most complete picture of the digital trends in the diplomacy of the above three countries. | [Tassilova, A., Zhappasov, Z., Shyngyssova, N., Sarybayev, M., Sadenova, A., Tasylova, N., Kozgambayeva, G. Comparative analysis on digital diplomacy in Kazakhstan, Uzbekistan and Kyrgyzstan Astra Salvensis.](https://www.scopus.com/record/display.uri?eid=2-s2.0-85047139055&origin=inward) 2018. 6, р. 321-332<https://kpfu.ru/staff_files/F1982395978/sciPaper112530.pdf>  |
| 4 | [Discourse as a social practices tool Voprosy Kognitivnoy Lingvistiki.](https://www.scopus.com/record/display.uri?eid=2-s2.0-84949604497&origin=inward) 2015. с. 89-96 |  | In this article we study functional and semantic nature of discourse as a social practices tool. In the context of discursive practices for public opinion formation (positioning and discrediting strategy) and advertising (customer attraction strategy) we research mechanisms ensuring the discourse influencing effect. Theoretical thesis of the research: discourse is created and functions within the institutional framework of a specific sphere of social practice. The main methods of the research were discourse analysis, conceptual analysis, cognitive modeling method. Key findings: 1. Tool function of the discourse is implemented through a system of meanings, formed under the influence of a particular ideology to influence the audience. 2. The main tool of company social identity is background knowledge about its activities based on the mental model of the site ideological discourse where all the statements retain their properties and relations. 3. Tools for creating discredit effect of ideological discourse can be strategies of nomination, act assessment, its interpretation in the context of social and cultural values of the society. 4. Implementation of the advertising discourse tool function becomes successful due to the use of cultural concept, strengthening its estimated component and appearance of quasiestimaton in new conditions of its functioning in the social culture. The results can be used to create site content, image and new strategies in advertising. Main conclusion: functional and semantic nature of discourse as an influencing tool is the result of its creation within the institutional framework of a particular social sphere. The strength of the discourse influence is relevant to the conditions for successful mental modeling of its information space in the context of ideology and culture. | [Yekshembeyeva, L.V., Nurshaikhova, Z.A., Mussayeva, G.A. Discourse as a social practices tool Voprosy Kognitivnoy Lingvistiki.](https://www.scopus.com/record/display.uri?eid=2-s2.0-84949604497&origin=inward) 2015. с. 89-96<https://www.researchgate.net/publication/287403215_Discourse_as_a_social_practices_tool>  |
| 5 | [Family discourse of Kazakh cultural linguistics as an object of scientific research Man in India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85035038862&origin=inward" \t "_blank) 2017. 97, с. 417-424 |  | Discursive linguistics, due to its popularity with the turn of linguistic science and the activity side of the language, has actualized the connection between the concepts of sphere, communication and speech features of the functioning of language in specific spheres of communication. In this paper, we want to focus on family discourse, which, in our opinion, deserves special attention for a number of reasons. Firstly, family discourse is onto logically the first discourse within which basic human communication skills are formed, which are later differentiated and developed depending on the specifics of communication in each particular area of communication. Secondly, family discourse accompanies a person throughout his/her conscious life, although the forms and nature of family discourse are different at each stage of a person's life and in different socio-cultural societies. Thirdly, it is within the family discourse that an axiological picture of the world of the individual is formed, although in the future, depending on the experience of communication in different discourses, the axiological picture of the world can be refined and modified. However, the basic concepts of an axiological character are initially being developed precisely within the framework of family discourse. | [Akhmetzhanova, Z., Kuderinova, K., Mussayeva, G., Bekbossynova, A., Koishybayeva, G. Family discourse of Kazakh cultural linguistics as an object of scientific research Man in India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85035038862&origin=inward" \t "_blank) 2017. 97, с. 417-424* January 2017
* [Man in India](https://www.researchgate.net/journal/Man-in-India-0025-1569) 97(21):417-424

<https://www.researchgate.net/publication/321696466_Family_discourse_of_Kazakh_cultural_linguistics_as_an_object_of_scientific_research>  |
| 6 | [Cognitive linguistic analyses of the phraseological units in modern linguistics XLinguae 2020](https://www.scopus.com/record/display.uri?eid=2-s2.0-85084487282&origin=inward) . 13, с. 216-224 | DOI: 10.18355/XL.2020.13.02.18 | n our research, we set out to show the specifics of the implementation of the sign ofconstructive conditionality in the field of phraseology, to establish the syntacticconstructions necessary for the semantics of phraseological units, characterized by theconstructive conditionality of their functioning, to show the determinism of thestructure that defines the use of phraseological units in speech, the grammaticalstructure and the lexical-grammatical composition of verbal complex-prototype of the phraseological unit. Phraseological units that realize their values under the conditionof a strictly defined structure are characterized by a sign of constructive conditioning.Such units are widely represented in modern English and, along with other types ofphraseological units, are part of the English phraseological foundation. They are notable to independently represent what is indicated by means of the values assigned tothem, irrespective of the mandatory actualizing effect on these values from the side ofthe verbal sign. | [Kalybayeva, K., Odanova, S., Tymbolova, A., Erchozhina, S., Musayeva, G. Cognitive linguistic analyses of the phraseological units in modern linguistics XLinguae 2020](https://www.scopus.com/record/display.uri?eid=2-s2.0-85084487282&origin=inward" \t "_blank) . 13, с. 216-224<https://www.kaznu.kz/content/files/pages/folder22526/XLinguae2_2020_18.pdf>  |
| 7 | [Peculiarities and problems of eponyms (On the material of Kazakhstani periodicals) Opcion](https://www.scopus.com/record/display.uri?eid=2-s2.0-85058804329&origin=inward)  2018. 34, с. 221-236 | Corpus ID: 232627329 | The purpose of this research paper is to collect eponyms from Kazakhstani political periodicals 2011 –2017 years. We used distance method which means to read, analyze and collect eponyms as units of investigation. Moreover, we used quantitative method in order to count eponyms. The authors arrive at a conclusion that given several peculiarities make eponyms unique and eponyms must be written with capital letters because of anthroponyms, but if the word goes through metonymical process the new eponym must be written with small letters. They recommend to use them frequently in the future in daily conversation and scientific life.  | [Taubayev, Z., Rivers, W., Mussabekova, U., Alimbayeva, A. Peculiarities and problems of eponyms (On the material of Kazakhstani periodicals) Opcion](https://www.scopus.com/record/display.uri?eid=2-s2.0-85058804329&origin=inward)  2018. 34, с. 221-236[https://www.semanticscholar.org/paper/Peculiarities-and-problems-of-eponyms-(on-the-of-Taubayev-Rivers/1457ed04b517652ca534dd965f6907b7f7f6c16a](https://www.semanticscholar.org/paper/Peculiarities-and-problems-of-eponyms-%28on-the-of-Taubayev-Rivers/1457ed04b517652ca534dd965f6907b7f7f6c16a)  |
| 8 | [Kazakhstan realities in the perception of representatives of American ethnolinguoculture Space and Culture, India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85057086442&origin=inward) 2018. 6, с. 71-81 | DOI:[10.20896/SACI.V6I3.370](https://doi.org/10.20896/SACI.V6I3.370) | The purpose of the article is to describe the axiological characteristics of the realities of modern Kazakhstan society and the ethnic character in the perception of representatives of American ethnolinguoculture by using experimental data. Based on the analysis and description of associates obtained as a result of the associative experiment and sociocultural questionnaire survey, conclusions were drawn about the national-cultural markedness of a linguistic sign. The use of the method of the free-associative test helped to obtain objective and subjective characteristics for each stimulus word. The analysis of associates of American informants determined the novelty of the approach to the problem of intercultural communication in multicultural Kazakhstan society. The generalisation and analysis of associates and answers to questions on the sociocultural topic made it possible to construct a conceptual structure of the image of Kazakhstan and its realities in the consciousness of a linguistic personality of another culture. Also, in the article, an attempt was made to conduct a sociocultural questionnaire survey as an alternative research method. The answers and comments of respondents made it possible to comprehend and describe the respondentsâ€™ attitudes and opinion on the national-cultural values of the Kazakh people, to determine a range of discussion problems in different worldviews and to counter sociocultural realities in intercultural communication.  | [Kiynova, Z.K., Sansyzbayeva, S.K., Akhmetzhanova, A.I., Mussabekova, U.E., Muratbayeva, I.S. Kazakhstan realities in the perception of representatives of American ethnolinguoculture Space and Culture, India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85057086442&origin=inward" \t "_blank) 2018. 6, с. 71-81<https://www.semanticscholar.org/paper/Kazakhstan-Realities-in-the-Perception-of-of-Kiynova-Sansyzbayeva/85c9c0f4c172a774721dd8fd9ff569380bacb82c>  |
| 9 | [Modeling linguistic communication in a foreign language learning Global Media Journal.](https://www.scopus.com/record/display.uri?eid=2-s2.0-84969268076&origin=inward) 2016. 2016, с. 1-8 | Corpus ID: 54930474 | One of the aspects of the theory of language acquisition and the theory of linguistic personality is the problem of teaching an adult personality a foreign language. In the development of this aspect, the research data on the biand multilingualism are taken into account. The article proposes a technique for describing the process of acquisition of a foreign language based on a communicative-cognitive model and the technology for foreign language teaching in the context of its functioning. The communicative-cognitive activity of a secondary linguistic personality is aimed at linguistic communication. A verbal conversation that occurs in the process of linguistic communication carries the activity, which is performed by speaking personalities – a subject of the communicative-cognitive activity and a subject of the teaching activity. This type of activity or speech activity of a speaking personality is considered in the context of a dialogue. The authors propose the typology of dialogues and the principles of modeling a linguistic communication for educational purposes. The communicative-cognitive activity of a secondary linguistic personality needs constant research and description as the study of this aspect helps to optimize and improve the process of foreign language acquisition. | [Utebaliyeva, G.Y., Yesbulatova, R.M., Kazmagambetova, A.S. Modeling linguistic communication in a foreign language learning Global Media Journal.](https://www.scopus.com/record/display.uri?eid=2-s2.0-84969268076&origin=inward" \t "_blank) 2016. 2016, с. 1-8<https://www.globalmediajournal.com/open-access/modeling-linguisticcommunication-in-a-foreign-language-learning.php?aid=72835>  |
| 10 | [Family discourse of Kazakh cultural linguistics as an object of scientific research Man in India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85035038862&origin=inward)  2017. 97, с. 417-424 | [Man in India](https://www.researchgate.net/journal/Man-in-India-0025-1569) 97(21):417-424 | Discursive linguistics, due to its popularity with the turn of linguistic science and the activity side of the language, has actualized the connection between the concepts of sphere, communication and speech features of the functioning of language in specific spheres of communication. In this paper, we want to focus on family discourse, which, in our opinion, deserves special attention for a number of reasons. Firstly, family discourse is onto logically the first discourse within which basic human communication skills are formed, which are later differentiated and developed depending on the specifics of communication in each particular area of communication. Secondly, family discourse accompanies a person throughout his/her conscious life, although the forms and nature of family discourse are different at each stage of a person's life and in different socio-cultural societies. Thirdly, it is within the family discourse that an axiological picture of the world of the individual is formed, although in the future, depending on the experience of communication in different discourses, the axiological picture of the world can be refined and modified. However, the basic concepts of an axiological character are initially being developed precisely within the framework of family discourse. | [Akhmetzhanova, Z., Kuderinova, K., Mussayeva, G., Bekbossynova, A., Koishybayeva, G. Family discourse of Kazakh cultural linguistics as an object of scientific research Man in India](https://www.scopus.com/record/display.uri?eid=2-s2.0-85035038862&origin=inward" \t "_blank)  2017. 97, с. 417-424<https://www.researchgate.net/publication/321696466_Family_discourse_of_Kazakh_cultural_linguistics_as_an_object_of_scientific_research>  |
| 11 | [Teaching the cultural heritage of Kazakh people in higher education by means of extracurricular activities in museums](https://www.scopus.com/record/display.uri?eid=2-s2.0-84973386971&origin=resultslist&sort=plf-f) | DOI: 10.18848/2327-0055/cgp/v14i02/11-22 | Currently, much attention is being paid to spiritual and cultural heritage of nations. In recent years, cultural policies in Kazakhstan have been promoted the material and spiritual heritage, both within the country and at an international level. Efforts have been directed to the preservation of these values in museums and specialized institutions, as well as to their cultural transmission in educational programs in colleges and universities. This paper presents some of these policies and shows the vital relation between the work in cultural heritage preservation developed in museums and educational processes. It also inquiries into how these relations might be made more productive by means of Information and Communication Technologies. In this regard, the archaeological museum materials are the means of the cultural heritage of both material and spiritual values, which is an important factor in education. | Gulbakyt Shashayeva, Zharilkasyn Zhappasov, Naziya Tasilova.https://www.scopus.com/record/display.uri?eid=2-s2.0-84973386971&origin=resultslist&sort=plf-f |
| 12 | Modified Activated Graphene-Based Carbon Electrodes from Rice Husk for Supercapacitor Applications  | <https://doi.org/10.3390/en13184943> | The renewable biomass material obtained from rice husk, a low-cost agricultural waste, was used as a precursor to synthesize a highly porous graphene-based carbon as electrode material for supercapacitors. Activated graphene-based carbon (AGC) was obtained by a two-step chemical procedure and exhibited a very high specific surface area (SSA) of 3292 m2 g−1. The surface morphology of the synthesized materials was studied using scanning and transmission electron microscopy (SEM, TEM). Furthermore, the AGC was modified with nickel hydroxide Ni(OH)2 through a simple chemical precipitation method. It was found that the most significant increase in capacitance could be reached with Ni(OH)2 loadings of around 9 wt.%. The measured specific capacitance of the pure AGC supercapacitor electrodes was 236 F g−1, whereas electrodes from the material modified with 9 wt.% Ni(OH)2 showed a specific capacitance of up to 300 F g−1 at a current density of 50 mA g−1. The increase in specific capacitance achieved due to chemical modification was, therefore 27%. | Yeleuov M, Seidl C, Temirgaliyeva T, Taurbekov A, Prikhodko N, Lesbayev B, Sultanov F, Daulbayev C, Kumekov S. Modified Activated Graphene-Based Carbon Electrodes from Rice Husk for Supercapacitor Applications. Energies. 2020; 13(18):4943. <https://doi.org/10.3390/en13184943> |
| 13 | High-Efficiency Selective Solar Absorber from Nanostructured Carbonized Plant Raw Material. | <https://doi.org/10.1007/s10891-020-02203-7> | The results of investigation into the absorptivity of carbonized rice-husk plant material with regard to solar radiation have been given. It has been shown that an absorber based on leached carbonized rice husk has higher solar absorptivity than an absorber based on carbonized apricot pits with an Apricus coating and an absorber based on a commercial Chinese-made coating. The results of investigation into the physical and chemical properties of carbonized rice husk have been presented. It has been shown that the carbon content in the initial unleached rice husk powder is 82.3%, and after leaching, the percentage of carbon rises up to 93.3%. Based on the results of a BET (Brunauer–Emmet–Teller) analysis, it has been established that leached rice husk has a more developed specific surface (447–641 m2/g) and a higher specific volume of pores (0.27–0.392 cm2/g) than unleached rice husk (127–160 m2/g and 0.054–0.127 cm2/g respectively). The advantage of the considered plant-based carbon materials compared to the exiting coatings lies in their porous structure. Cavities are known to be a model of a blackbody, which is a decisive factor in using a material as an absorber, and, simultaneously, a porous structure has a heat-insulating property. |  [T. S. Temirgalieva](https://link.springer.com/article/10.1007/s10891-020-02203-7#auth-T__S_-Temirgalieva),   . High-Efficiency Selective Solar Absorber from Nanostructured Carbonized Plant Raw Material. J Eng Phys Thermophy 93, 1020–1029 (2020).3 <https://doi.org/10.1007/s10891-020-02203-7> |
| 14 | Synthesis of Multiwall Carbon Nanotubes by the Cvd Method and their Functionalization | <https://doi.org/10.1007/s10891-020-02094-8> | Results of the functionalization of multiwall carbon nanotubes by an aqueous solution of nitric acid and a mixture of nitric and sulfuric acids with subsequent treatment of them by ultrasound are presented. The presence of functional groups on the surface of multiwall carbon nanotubes was determined with the use of IR spectroscopy. | Temirgaliyeva, T.SSynthesis of Multiwall Carbon Nanotubes by the Cvd Method and their Functionalization. J Eng Phys Thermophy 93, 91–94 (2020). <https://doi.org/10.1007/s10891-020-02094-8> |
| 15 | Self-Supporting Hybrid Supercapacitor Electrodes Based on Carbon Nanotube and Activated Carbons. | <https://doi.org/10.18321/ectj719> | Self-supporting AC (activated carbon)-FWCNT (few-wall carbon nanotubes) hybrid electrodes were fabricated by mixing of ACs with high specific surface area (SSA) and sub-millimeter-long FWCNTs. In order to fabricate the hybrid electrodes, AC and FWCNT were mixed in a weight ratio of 9:1, dispersed by bath-sonication and vacuum-filtrated on a membrane filter. The addition of FWCNTs gives conductivity and mechanical strength, and replace metallic current collectors in thick (0.1 mm) electrodes. For making an electrode, three different ACs that derived from walnut shell (WS), that from apricot stones (AS), and that commercially used for capacitors (YP-80F, Kuraray Chemical Co., Osaka Japan), were used with FWCNT in weight ratio of AC:FWCNT = 9:1. An electrode based only on FWCNT was also prepared as a reference for comparison. Electrochemical properties of the obtained electrodes were investigated by the cyclic voltammetry method (CV). Electrochemical characteristics were measured using the three-electrode cell contained of YP-80F-FWCNT, AS-FWCNT, WS-FWCNT as a working electrode, a YP-80F-FWCNT counter electrode and a Ag/AgCl reference electrode with an electrolyte of 1 M Na2SO4 aqueous solution. Also, the morphological properties of obtained electrodes were studied using scanning electron microscope (SEM), the SSA was investigated by the Brunauer-Emmett-Teller analysis. SSA, conductivity, and resistivity of AS-FWCNT and WS-FWCNT electrodes were summarized. Both the AS-FWCNT and WS-FWCNT hybrid electrodes showed specific capacitances of about 140 F/g at 1 mV/s and about 100 F/g at 100 mV/s, which are similar or even better than the AC-CNT hybrid electrode made of commercialized AC (YP-80F). | T.S. Temirgaliyeva, . Self-Supporting Hybrid Supercapacitor Electrodes Based on Carbon Nanotube and Activated Carbons. Eurasian Chemico-Technological Journal 20 (2018) 169–175 |
| 16 | Synthesis of Carbon Nanotubes on a Shungite Substrate and Their Use for Lithium–Sulfur Batteries | https://doi.org/10.1007/s10891-018-1861-5 | A shungite mineral has been used as a support material of catalyst particles to synthesize multiwalled carbon nanotubes (MWCNTs). Raman spectroscopy enabled us to follow the formation of MWCNTs. The morphology of synthesized MWCNTs was investigated by a scanning electron microscope and a transmission electron microscope. As a result of simple heat treatment at 300°C for 3 h in an inert atmosphere, a novel sulfur/multiwalled carbon nanotubes/polyacrylonitrile (S/MWCNT/PAN) composite was synthesized. These methods of obtaining MWCNTs and S/MWCNT/PAN composite based on heat treatment possess the advantages of simplicity and low cost. The introduction of MWCNTs into the composite gives a highly conductive and mechanically flexible framework with an enhanced electronic conductivity and the ability to absorb polysulfides between the Li anode and cathode, which leads to an enhanced cyclability and a higher coulombic efficiency. The cell with this S/MWCNT/PAN ternary composite cathode demonstrates a stable reversible specific discharge capacity of 800 mA·h·g–1 after 50 cycles at a battery C-rate of 0.2 C. | Temirgaliyeva, T.S.. Synthesis of Carbon Nanotubes on a Shungite Substrate and Their Use for Lithium–Sulfur Batteries. J Eng Phys Thermophy 91, 1295–1301 (2018). https://doi.org/10.1007/s10891-018-1861-5 |
| 17 | Creating of Anti-icing Coatings Based on Nanoscale Powders of Silicon Dioxide Obtained from Silicone Waste | <https://doi.org/10.1016/j.promfg.2017.08.004> | The capacity expansion, processing and consumption of silicone products generate the environmental and economic problems. There are many technological wastes such as cyclosiloxanes, linear or partially-structured siloxane polymers, wastes that generated during silicon rubber processing, when the products are formed by pressing, as well as silicone products with expired service life etc. Currently, the problem of reclamation in silicone production, through the creation of energy-saving technology and their production return in the form of new composite materials of various application is an urgent task. Having regard to the above, for combustion regime treatment of nanomaterials synthesis in flame with desired properties some studies were carried out to produce the nanosized powder of silicone dioxide during combustion process of silicone waste. | T.S.Temirgaliyeva Creating of Anti-icing Coatings Based on Nanoscale Powders of Silicon Dioxide Obtained from Silicone Waste, Procedia Manufacturing,Volume 12, 2017, Pages 22-27 |
| 18 | Highly Efficient Collectors of Solar Energy Using Nanocarbon Coatings Based on Vegetable Raw Materials | <https://doi.org/10.1016/j.promfg.2017.08.001> | In this work we present the results of a study of model samples of solar collectors with an absorption material based on carbonized vegetable raw materials from apricot stones, rice husks and their combination with carbon nanotubes. These studies have shown the possibility and prospects of the use of carbon structures based on carbonized vegetable raw materials for the absorbing layers of solar collectors. Experimentally, on the basis of a comparative study of the absorption capacity of the coatings from carbonized rice husk, apricot stones, and their combination with the carbon nanotubes, it was found that the maximum absorption capacity was observed for a coating based on carbonized rice husks. | T.S. Temirgaliyeva, Highly Efficient Collectors of Solar Energy Using Nanocarbon Coatings Based on Vegetable Raw Materials,Procedia Manufacturing,Volume 12,2017,Pages 1-6<https://doi.org/10.1016/j.promfg.2017.08.001> |
| 19 | Obtaining Superhydrophobic Sand on the Basis of Soot Synthesized During Combustion of Oil Waste | <https://doi.org/10.1016/j.promfg.2017.08.003> | In this work, a number of experimental studies to determine effective soot by burning waste oils were carried out. The raw materials used waste oil from service stations to replace oil cars. Used oil burned using a conventional wick, by impregnating carbon and glass fiber fabric. The results showed that the surface of the soot produced by burning waste oil has a hydrophobic property to the wetting angle 145-1500. The experimental research on the production of soot by burning waste oils showed that the combustion of 100 grams of oil, depending on the combustion conditions can be obtained from 0.5 to 1.5 grams of soot. And, also was determined the elemental composition and the surface functional groups of hydrophobic sand by IR-spectroscopy. Flexible hydrophobic self-destroying carpet on the basis of hydrophobic sand was developed and built. For comparison was conducted studies of growth process of potato in the soil layer of earth on the surface of the usual soil and on the surface-degradable hydrophobic carpet based on hydrophobic sand under greenhouse conditions. | T.S. Temirgaliyeva,  Obtaining Superhydrophobic Sand on the Basis of Soot Synthesized During Combustion of Oil Waste, Procedia Manufacturing, Volume 12, 2017, Pages 17-21<https://doi.org/10.1016/j.promfg.2017.08.003> |
| 20 | Synthesis of Porous Carbon Material and its Use for Growing Carbon Nanotubes. | DOI: 10.4028/www.scientific.net/MSF.886.32  | The scales of porous carbon materials usage are constrained by their considerably high cost. Therefore, development of new methods for production of porous carbon with the necessary complex of properties from cheap raw materials is actual. Also, porous carbon materials can be used for growth of carbon nanotubes as a matrices of catalyst particles. Herein, the method of fabrication porous carbon materials from waste of oil industry and their use as a matrices of catalyst particles to growth of CNT was developed. CNTs was synthesized by CVD using as hydrocarbon source - propan-butane gas mixture, as catalyst - Ni particles at 650°C, 700°C, 750°C, 800°C. Obtained carbon materials was investigated by Raman spectroscopy and by scanning electron microscope. Investigations on the properties of the obtained porous materials show soot particles sedimented in pores reduce well nanoparticles of metals from salts which act as nuclei for the growth of multiwall carbon nanotubes during pyrolysis of hydrocarbons by CVD method. | [Temirgaliyeva, Tolganay](https://www.proquest.com/indexinglinkhandler/sng/au/Temirgaliyeva%2C%2BTolganay/%24N;jsessionid=7A0DD62053FEBB2402E73F400DB630F1.i-07fadd00494a19350);  Synthesis of Porous Carbon Material and its Use for Growing Carbon Nanotubes. [Materials Science Forum](https://www.proquest.com/pubidlinkhandler/sng/pubtitle/Materials%2BScience%2BForum/%24N/2040939/OpenView/1873878183/%24B/FCFFA2F9FCA347B4PQ/1;jsessionid=7A0DD62053FEBB2402E73F400DB630F1.i-07fadd00494a19350); Pfaffikon[Том 886,](https://www.proquest.com/indexingvolumeissuelinkhandler/2040939/Materials%2BScience%2BForum/02017Y03Y01%2423Mar%2B2017%243b%2B%2BVol.%2B886/886/%24B;jsessionid=7A0DD62053FEBB2402E73F400DB630F1.i-07fadd00494a19350" \o "Нажмите для поиска других элементов из этого выпуска) (Mar 2017):32-36. Htpps:10.4028/www.scientific.net/MSF.886.32  |
| 21 | Influence of Superhydrophobic Properties on Deicing | <https://doi.org/10.1007/s10891-016-1516-3> | Nowadays the creation of anti-icing, or deicing, surfaces is one of the most important problems, as such surfaces are widely used in aeronautics, wind turbines, and telecommunication antennas. In this paper, we focus mainly on reducing the ice adhesion forces and easy ice removal, once ice has formed. Removal of a liquid from a surface can be provided by modification of the surface wettability by means of applying superhydrophobic coatings. Such coatings are water-resistant, i.e., are characterized by low water adhesion forces. To study the impact of superhydrophobic coatings, tests were performed on the surface of a wing in a wind tunnel. By spraying Teflon and polyphenylene sulfide (PPS) on the wing, we obtained a superhydrophobic film. This film has a structure that provides superhydrophobic properties, so that the wetting angle is above 140°. A comparison of the resulting surface with a clean Teflon one shows that adhesion of the Teflon + PPS mixture to an aluminum surface is five times higher. We also investigate the degree of ice formation on the surfaces of simple and superhydrophobic aircraft wings at a temperature of –18°C. It was shown that ice was formed on a simple wing within 40 s and on a superhydrophobic wing within 25 s. When the simple wing with a mass of 23 g was inserted into the wind tunnel, its mass reached 50 g, and for a superhydrophobic wing with a mass of 26 g the latter reached 42 g. The sample of the airfoil wing we prepared has a low adhesion, which helps in easy ice removal. | T.S. Temirgaliyeva. Influence of Superhydrophobic Properties on Deicing. J Eng Phys Thermophy 89, 1476–1481 (2016). <https://doi.org/10.1007/s10891-016-1516-3> |
| 22 | A Short Review on the N,N-Dimethylacrylamide-Based Hydrogels | <https://doi.org/10.3390/gels7040234> | Scientists have been encouraged to find different methods for removing harmful heavy metal ions and dyes from bodies of water. The adsorption technique offers promising outcomes for heavy metal ion removal and is simple to run on a large scale, making it appropriate for practical applications. Many adsorbent hydrogels have been developed and reported, comprising N,N-dimethylacrylamide (DMAA)-based hydrogels, which have attracted a lot of interest due to their reusability, simplicity of synthesis, and processing. DMAA hydrogels are also a suitable choice for self-healing materials and materials with good mechanical properties. This review work discusses the recent studies of DMAA-based hydrogels such as hydrogels for dye removal and the removal of hazardous heavy metal ions from water. Furthermore, there are also references about their conduct for self-healing materials and for enhancing mechanical properties. | Nurgul AmangeldiA Short Review on the N,N-Dimethylacrylamide-Based HydrogelsGels **2021**, 7(4), 234; <https://www.mdpi.com/2310-2861/7/4/234>  |
| 23 | Synthesis and Heavy-Metal Sorption Studies of *N*,*N*-Dimethylacrylamide-Based Hydrogels | [**https://doi.org/10.3390/polym13183084**](https://doi.org/10.3390/polym13183084) | In this work, a hydrogel system was produced via radical polymerization of *N*,*N*-dimethylacrylamide and 2-acrylamido-2-methylpropanesulfonic acid in the presence of *N*,*N*-methylene-bis-acrylamide as a crosslinker and ammonium persulfate as an initiator. Parameters that impact the conversion of copolymerization (such as initial concentration of monomers, temperature, initiator dose, and time) were studied. The swelling degree of the hydrogel was investigated with the addition of a crosslinker and initiator at different pH levels. A hydrogel with high conversion and high swelling degree was selected to investigate their ability for adsorption of Pb(II) ions from solutions. Adsorption behavior of Pb(II) ions in a hydrogel was examined as a function of reaction time and concentration of lead ions from a solution of Pb(II) ions. | Nurgul AmangeldiSynthesis and Heavy-Metal Sorption Studies of *N*,*N*-Dimethylacrylamide-Based HydrogelsPolymers 2021, 13(18), 3084; <https://www.mdpi.com/2073-4360/13/18/3084>  |
| 24 | [Effectiveness of Biologics Application Against Root Rot of Grain Crops](http://www.biotech-asia.org/vol13no4/effectiveness-of-biologics-application-against-root-rot-of-grain-crops/) | **DOI :**<http://dx.doi.org/10.13005/bbra/2355> | The article studies the application of biologics in agriculture. Laboratory and field experiments were conducted on spring wheat. The effect of biologics on germination and biomass accumulation of wheat was studied. Also, laboratory and field experiments were conducted with "Baisheshek" barley variety. Rating of winter wheat biometrics in soil salinity conditions was conducted as well. The effect of biologics on germination and yield of wheat was studied. | Nurgul Amangeldi[Effectiveness of Biologics Application Against Root Rot of Grain Crops](http://www.biotech-asia.org/vol13no4/effectiveness-of-biologics-application-against-root-rot-of-grain-crops/)Biosciences biotechnology research Asia, volume 13,number 4<http://www.biotech-asia.org/vol13no4/effectiveness-of-biologics-application-against-root-rot-of-grain-crops/>  |
| 25 | «Modern Methods of Teaching Kazakh as a Foreign Language: Search, Innovation, Quality, Result | DOI:<https://doi.org/10.5539/res.v7n7p347> | Given the experience of the most effective methods for learning the Kazakh language, the authors of this project offers an innovative unique comprehensive methodology poly language Kazakh language in the Environment as a foreign, second to other language audiences, as well as business and professional level for Kazakh-audiences, based on the Kazakh grammar adapted to paradigm for learners and students. The applied technique is a result of research and experience shows that this method does for students of all ages learning process more flexible and diverse. During the classes more time on the development of communication skills, group work and language of professional communication. Student-centered professional approach, the specificity of a unique method of KKB, special attention personal requirements of the user language has a strong influence on the successful outcome of a study of the Kazakh as foreign | Rakhila Naraliyeva«SCOPUS из Elsevier Customer» Service Review – Vol. Canada - June 2015 **INDEX. 150428-003953, ISSN: 1918-7181.**<https://www.scopus.com/inward/authorDetails.uri?authorID=56646562200&partnerID=5ESL7QZV&md5=16722cb2aa0ccc155ad2b00f93ae87e2> |
| 26 | The Story of Turkestan: Ethnic Distincion of Kazakhs in European Written Sources | DOI:htpp://www.spaceandculture.in/index.php/ spaceandculture/article/view/659  | This research aims to examine the ethnographic data about the Kazakh ethnic group from the European sources of the middle XIII to early XX centuries. The study uses problem-chronological and comparative-historical analyses to process data published by European travellers, merchants, soldiers and scientists. The European works contain factual inaccuracies, unverified information and speculations. Their quality has improved since the XVIII century though. The findings of European explorers allow a better understanding of the ethnogenesis of Kazakhs and their transition to statehood. Data available in these sources will help find the historical roots of contemporary ethnic and inter-ethnic problems in Kazakhstan and Central Asia. The present study allowed a look at the past life of Kazakh people and their ethnic distinction in Turkestan through the lens of European mentality. | A.K.Begalieva .Space and Culture, India , 2020 Page 210-218. [http://www.spaceandculture.in/index.php/ spaceandculture/article/view/659/404](http://www.spaceandculture.in/index.php/%20spaceandculture/article/view/659/404) |
| 27 | A mini-review on recent trends in prospective use of porous 1D nanomaterials for hydrogen storage | <https://doi.org/10.1016/j.sajce.2021.11.008> | The sustainable development of hydrogen energy is a priority task for a possible solution to the global energy crisis. Hydrogen is a clean and renewable energy source that today is used exclusively in the form of compressed gas or in liquefied form, which prevents its widespread use. Storing hydrogen in solid-state systems will not only increase the bulk density and gravimetric capacity, but will also have a positive impact on safety issues. From this point of view, the current review considers the latest research in the field of application of 1D nanomaterials for solid-state hydrogen storage, and also discusses the mechanisms of its adsorption and desorption. Despite the high publication activity, the use of 1D nanomaterials for hydrogen storage has not been fully studied. In the current review, modern developments in the field of hydrogen storage using 1D nanomaterials and composites based on them are investigated in detail, and their problems and future prospects are discussed. | Chingis Daulbayev, Bakhytzhan Lesbayev, Baglan Bakbolat, Bayan Kaidar, Fail Sultanov, Mukhtar Yeleuov, Gauhar Ustayeva, Nurgali Rakhymzhan,A mini-review on recent trends in prospective use of porous 1D nanomaterials for hydrogen storage, South African Journal of Chemical Engineering,Volume 39, 2022, Pages 52-61, ISSN 1026-9185, https://doi.org/10.1016/j.sajce.2021.11.008. |
| 28 | The recent progress in pitch derived carbon fibers applications. A Review | <https://doi.org/10.1016/j.sajce.2021.07.001> | Interest in carbon fibers (CFs) is due to their chemical properties, high electrical conductivity and mechanical strength, which makes them promising candidates for various kinds of practical applications. The need to develop low-cost technologies for producing CFs is a major factor in research in this area. Currently, the widespread commercial use of CFs is limited by their high cost, which primarily depends on the type of carbon feedstock. Conventional methods for producing CFs use expensive raw materials such as hydrocarbons and graphite. A possible solution to this problem is the use of coal, petroleum and coal tar as an effective precursor to produce CFs. The review examines recent progress in the synthesis of CFs using petroleum and coal tar and details the prospects for their application in the energy sector and as a structural material for the adsorption of volatile organic compounds. In addition, methods for improving the chemical and structural properties of these CFs have been reviewed and described. | Chingis Daulbayev, Bayan Kaidar, Fail Sultanov, Baglan Bakbolat, Gaukhar Smagulova, Zulkhair Mansurov,The recent progress in pitch derived carbon fibers applications. A Review, South African Journal of Chemical Engineering,Volume 38, 2021, Pages 9-20, ISSN 1026-9185, https://doi.org/10.1016/j.sajce.2021.07.001. |
| 29 | Recycling of Low-Density Polyethylene Waste for Synthesis of Carbon Nanotubes | <https://doi.org/10.1007/s10891-021-02313-w> | The authors have presented results of synthesis of carbon nanotubes from low-density polyethylene. The synthesis was carried by thermal destruction of the polyethylene in a chemical-vapor-deposition unit. The process of decomposition of the polyethylene and the synthesis of carbon nanotubes were implemented in one stage in a triple-fired furnace for chemical vapor deposition. Consideration has been given to the influence of temperature on the decomposition products of polyethylene in the range of temperatures 450–550oC. The gas- and vaporphase decomposition products of polyethylene, obtained at different temperatures, were investigated by the infrared spectroscopy method. It has been established that the necessary and suffi cient temperature of decomposition of polyethylene is 450oC. Carbon nanotubes were grown on a catalyst that represented cenospheres impregnated with a ferrous nitrate solution. On exposure to high temperatures, ferrous nitrate decomposes to form pure iron particles on the cenospheric surface, which are active sites of growth of carbon nanotubes. The formation of iron particles on the cenospheric surface upon the impregnation with ferrous nitrate and thermal treatment is confirmed by the results of x-ray phase analysis. A semiquantitative analysis shows that the content of iron in the total catalysts mass amounts to about 2.3%. The synthesis gives rise to carbon nanotubes with diameters of 50–60 nm on the cenospheric surface. Thus, it has been shown that carbon nanotubes can be synthesized from low-density polyethylene waste. | Smagulova, G.T., Vassilyeva, N., Kaidar, B.B. et al. Recycling of Low-Density Polyethylene Waste for Synthesis of Carbon Nanotubes. J Eng Phys Thermophy 94, 431–436 (2021). https://doi.org/10.1007/s10891-021-02313-w |
| 30 | Compositional fibers based on coal tar mesophase pitch obtained by electrospinning method | <https://doi.org/10.23939/chcht15.03.403> | This research examines the use of coal-processing wastes of Shubarkol deposit (Kazakhstan) in obtaining useful materials such as carbon fibers. For our experiments, mesophase pitch was obtained by coal tar heat treatment at 773 K. Spinnable solution was prepared by crushing mesophase pitch into the pieces with adding poly(methylmethacrylate) as a fiber-forming material and 1,2-dichloroethane as a solvent. Elemental analysis revealed that the chemical composition of mesophase pitch (С – 91.48 %; О – 8.52 %; S – 0.00 %) showed that heat treatment up to 773 K leads to the complete removal of sulfur-containing components which affect the mesophase formation. Raman data of the obtained pitch revealed the appearance of D (1366 cm-1) and G (1605 cm-1) peaks, which are responsible for carbon materials; another peak at 2900 cm-1 shows the presence of C–H bonds. Carbon fibers with the diameter of 0.8–1.75 μm were obtained by electrospinning method in laboratory settings. | Aldan Imangazy, Gaukhar Smagulova, Bayan Kaidar, Zulkhair Mansurov, Almagul Kerimkulova, Kuanysh Umbetkaliev, Anvar Zakhidov, Pavel Vorobyev, Talkybek Jumadilov. Compositional Fibers Based on Coal Tar Mesophase Pitch Obtained by Electrospinning Method // Ch&ChT Vol. 15, No. 3, 2021, рр. 403-407, <https://doi.org/10.23939/chcht15.03.403> |
| 31 | Synthesis of carbon nanotubes from benzene in a fluidised bed reactor | <https://doi.org/10.18321/ectj982> | The paper presents the results of carbon nanotubes synthesis from benzene in fluidised bed reactor. Al2O3 spheres with iron and nickel nanoparticles coating were used as a catalyst for the synthesis of carbon nanotubes. To deposit nickel nanoparticles on the surface of Al2O3 spheres, the method of solution combustion was used. Optimum temperature conditions and gas flow rates were worked out for each of the catalysts. It was found that the best efficiency in the synthesis of carbon nanotubes from benzene is shown by catalysts based on aluminium oxide coated with iron. The obtained carbon nanotubes were studied by scanning electron microscopy and Raman spectroscopy. It was found that at temperatures above 850 °C from benzene on Al2O3 spheres with Ni/NiO, carbon frame structures are formed. | G. Smagulova, B. Kaidar, N. Yesbolov, N. Prikhodko, and N. Maxumzhanova, “Synthesis of Carbon Nanotubes from Benzene in a Fluidised Bed Reactor”, Eurasian Chem.-Technol. J., vol. 22, no. 3, pp. 235-239, Sep. 2020. |
| 32 | The Complex of Experimental Facilities for the Cosmic Ray Investigation at the Tien Shan Mountain Station | https://doi.org/10.3390/app12010465 | The study describes the experimental complex of the station located in the Tien Shan mountains at an elevation of 3340 m above sea level. The complex consists of detectors of different types scattered across the station area, such as scintillation particles detectors, Cherenkov detectors, radio emission detectors for the measurement of the electron component of extensive air showers (EAS) created by the (1–1000) PeV cosmic ray particles, an ionization calorimeter and neutron detectors for the study of the nuclear-active component of EAS cores, and the underground particle detectors for the detection of cosmic ray muons. The data acquisition system allows the simultaneous recording of parameters from various stand-alone detectors registering an EAS, and storage of the acquired data in the database. As an illustration of research capability, the results of the EAS study are presented here which were obtained during the last few years at the different experimental set-ups constituting the Tien Shan complex. | Mukashev K, Argynova A, Zhukov V, Idrissova T, **Iskakov B**, Piskal V, Sadykov T, Sadykov Z, Stepanov A, Serikkanov A. The Complex of Experimental Facilities for the Cosmic Ray Investigation at the Tien Shan Mountain Station. Applied Sciences. 2022; 12(1):465.https://doi.org/10.3390/app12010465 |
| 33 | Solar cell research at an altitude of 3340 meters above sea level | <https://doi.org/10.1016/j.matpr.2021.06.097> | Providing electricity to consumers in the mountainous regions is one of the urgent problems of power engineers. Laying and maintenance of power lines is expensive because of the difficult terrain and climatic conditions. Providing a heating system for heating boilers, requires the acquisition and delivery of large quantities of combustible material. The heating season in the highlands lasts up to nine months. Considering all the costs of electricity consumption and heating, it becomes necessary to conduct research and evaluate the economic efficiency of using solar power plants, focused on providing electricity to consumers in mountain regions. In order to create a scientific basis for solving innovative problems in solar energy at the Tien Shan high-mountain cosmic ray scientific station (TSHSS), located at an altitude of 3340 m above sea level, initiative work is underway to create a solar power station (SPS), assess its effectiveness, safety, environmental friendliness and reliability in work. At the moment, a solar power station has been created at an altitude of 3340 m above sea level. A comparative analysis of the results of generating electricity from the same type of solar power stations located at altitudes of 800 and 3340 m above sea level was carried out. It is shown that the amount of electricity generated by a solar power station at an altitude of 3340 is 20 percent more than at an altitude of 800 m. | [Sadykov Turlan](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!), [Zhukov Valeriy](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!), [Iskakov Bakhtiyar](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!), [Nevmerzhitskiy Ivan,](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!) [Serikkanov Abay,](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!) [Novolodskaya Olga,](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!) [Tautayev Yernar](https://www.sciencedirect.com/science/article/pii/S2214785321044527?via%3Dihub#!). Solar cell research at an altitude of 3340 meters above sea level // Materials Today. Proceedings. [Volume 49, Part 6](https://www.sciencedirect.com/science/journal/22147853/49/part/P6), 2022, Pages 2537-2539. DOI: <https://doi.org/10.1016/j.matpr.2021.06.097> |
| 34 | Study of the energy spectrum of cosmic rays obtained at the Hadron 55 installation located at an altitude of 3340 m. | <https://doi.org/10.22323/1.395.0185> | “HADRON-55” with scintillation detectors and ionization calorimeters is used for studies in high-energy gamma-astronomy and cosmic ray physics. The “HADRON-55” consists of two parts - the upper gamma block and the lower hadron block. The gamma block absorbs and detects the electron-photon components of cosmic rays, while hadrons are not absorbed when they pass through the gamma block and begins to form particles in the hadron block. Project’s main idea is to select events where there is the interaction in gamma block and no interaction in hadron block. Analysis of experiments results on “HADRON-55” accounts for ~ 6% of such events. The peripheral part of "HADRON-55" consists of 8 scintillation detectors placed in 2 circles with radii of 40 and 100 m. Over 4 years, more than 120,000 events with high energy of 1015 eV were detected. | T. Berdykhalyk, B. Iskakov, A. Argynova, M. Altayqyzy, T. Idrisova, O. Novolodskay, V. Piscal, V. Ryabov, T. Sadykov, Z. Sadykov, Y. Tautayev and N. Yerezhep. Study of the energy spectrum of cosmic rays obtained at the Hadron 55 installation located at an altitude of 3340 m. // [37th International Cosmic Ray Conference (ICRC2021)](https://pos.sissa.it/395/). Proceedings of Science. Volume 395. DOI: <https://doi.org/10.22323/1.395.0185> |