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CHYMMOTOLOGICAL PROBLEMS OF THE CENTRAL ASIAN REGION

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Annotation:

The article deals with chemmotological issues related to changes in the environmental situation in the Priory. It is proposed to conduct a study to establish the consumption rates of fuel and lubricants for the areas of the Urals. There is information about chemmotology as an intersectoral science.

Keywords: ecology, chemmotology, machinery, fuel, lubrication, wear, corrosion, alternative resources, zoning;

Human development and prosperity cannot be tasted without energy sources, first of all, without traditional oil and gas products, and, moreover, without alternative, renewable sources and the environmental consequences of their application.

In contrast to the product of the period, in the last years of the last century, new research in science and technology - a scientific direction consisting of the theory and practice of the effective use of fuel and lubricant products - the science of chimmotology arose[1,2].

This direction combined several disciplines and areas into its composition. Because a specialist-a chymmotologist, had to have knowledge of both the structure and use of the technique and the rational organization of work, their transportation, storage and application, which occurs in fuel, oil, special liquids that are used for them.

Chymmotology entered higher education as a complex of Sciences that included mechanical engineering, transportation, oil refining, physical and colloidal chemistry, the theories of eavesdropping and rust, the laws of hydraulics, and environmental influences [1,3]. Today it is no secret that the efficiency of the covering networks of the national economy depends on the reliability of the equipment and vehicles in them, the quality of fuel and lubricant products. For





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example, in the cost of freight and passenger transportation, the most consumption is considered to be the expenditure on fuel and oil products, which in some cases accounts for more than half the cost [4,5].

Fuel-oil quality, on the other hand, is causing not only the effective operation of the vehicle, but in most cases unexpected defects of certain aggregates and parts under the influence of environmental changes, Additional, not foreseeable costs for their repair.

In recent years, climate changes have led to changes in conditions not only in the Republic of Uzbekistan, but entirely in the territory of Central Asia. Many necessary techniques were brought to the island Bight region. Clusters were established to make effective use of them. Purchased for these clusters, 10-12 times less commonly used techniques compared to ordinary vehicles are perfectly repaired almost every two years, due to the use of selected oils without regard to the condition, due to the lack of special protective oils used in the storage process[6]. As a result of this, their effectiveness is reduced, and many are written off before the deadline.



Fig.-1

Of the urgent issues of this day is the fact that in recent years all of the imported and currently produced techniques are intended to apply more refined fuel and oil products, products corresponding to these requirements should be created by gmotologists.





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As a result of the construction of the Aral Sea, 15-17 million tons of sand and salt rose from the dry bottom of the Aralnig every year as dust and spread to the surrounding area. As a result, not only the environmental situation for humanity is deteriorating, but also the conditions for the explutation of all techniques and vehicles are changing dramatically.

Dust-dust is spreading throughout the Central Asian region, not only in the insular region, the size of their quantity, chemical composition are also different from other regions. Naturally, the amount of dust in the air, its composition, directly affects the state of the technique, the edibility of the details. Dust particles pass through standard filters and fall into oils and burners, penetrating between the rubbing details, resulting in a change in the rate of absorption, dust particles scratching the surfaces of details such as goyoki abrasive, emitting nanoscale roughness.





Fig.-2

The conculition resulting from these is:

We believe that it is necessary to study the timing of the replacement of filters, the use of specially reinforced filtering agents for the equipment of vehicles used in the island area and nearby regions.

In addition, the salt particles contained in the dust also dissolve in moisture and turn into acid droplets, which occur rusting processes on the surfaces of metals.





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The management document, which is obliged to be applied in the Republic of Uzbekistan, is calculated, in Appendix A of the "fuel and lubricant consumption indicators in automobile vehicles and road construction machines", the coefficients for changing fuel consumption in the summer climate are listed, but the cities and districts of the territory of Karakalpakstan are not included in these. In order to make changes to additional spending criteria for winter and summer, it is advisable to carry out extended chymmotological research.

At the end of the 20th century, several independent states emerged in the Central Asia region, centered on the Great Silk Road, and for a certain period of time, transportation customs were limited among the states. At the moment, within the framework of the principle of "one space-one way" by the initiative and efforts of the leaders of the Member States of the Shanghai Cooperation Organization, this ancient caravan route is being restored in stages. And there is no doubt that this road will now be crossed by cars, trains and other transport "caravans" of different models and brands.

It will be necessary to place service enterprises, motels, large-small workshops, filling stations, oil exchange points serving them on the roadsides and organize their effective operation.

In the last ten years, brands of cars, the type of fuel and lubricant products being poured into them, began to differ in quality and price.

Therefore, today there is an increasing demand and need for a car "dishbook" for selectors and preparers — chemotologists. Moreover, today, the foundation for the third Renaissance is being laid, the training of young people capable of conducting complex research in a wide range of fields, non-traditional directions is considered an important task ahead of US[4].

The establishment of the Tashkent State transport University allows further expansion of research in Ecology and chymmotology, training of specialists not only for automobile, but also for rail transport, airports, agroclasters, as well as for thousands of fuel and lubricant products supply enterprises operating in the countries of Central Asia.

We believe that it is necessary to comprehensively develop the training of specialists-engineers — chemotologists with knowledge of the mechanism of action





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of fuel and lubricant Anatomy and components in nano sizes and the structure of techniques and their operation, to increase alternative energy sources along with petroleum products for vehicles, reduce fire and environmental safety when applying them[7,8].

At the moment, we have established clubs of chemotologists and environmentalists under our university. We want them to be open not only to our scientists and students, but also to those who are interested in this field and specialty, including foreigners. In addition, we also offer our clubs specialists who grow plant-shaped renewable energy sources and process them, because in all the meat of our Paradise Country, various "oil" plants can be grown that collect substances such as oil, ether, rubber.

In order to prepare competent specialists to tax these, to learn how to get fuel and oil products from renewable sources in the future it will be necessary to establish an inter-sector scientific laboratory with finance, to bring agronomists, chemist technologists and transport engineers together.

Qualitatively created and selected fuel and lubricants, various technical liquids and operating materials are a guarantee of long-term and efficient operation of techniques and vehicles, a decrease in their damage to the environment.

References:

- 1. Gureev Compiled A.A., Fuchs I.G., I dr. Chimmotology. M. Ximia. 1986. 386p.
- 2. V.M.Shkolnikov I dr. Topliva, smazochnie material technicheskie jidkosti. Assortment I primenenie. M: Technoform. 1999y
- 3. Alimova Z.X. Used in vehiclesoperational materials. Tashkent "Vneshinvestprom" 2019 y.
- 4. Sobirzhonov A, B. Elmuradov, V. Meliev. Innovative pedagogical methods in teaching the topic of lubricants used in vehicles. Academic Research in Educational Sciences Volume 3 | Issue 12 | 2022.
- 5. Sobirzhonov A, Meliev V. Items to keep low-foiled techniques from being eaten rusty. Mezhdunarodny nauchny Journal No. 4 (100), chast 2 "Novosti obrazovaniya: issledovanie v XXI veke" November, 2022





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- 6. Sobirzhanov A., Alimova Z.X., Meliyev V.M. Improving the corrosion protection properties of oils using oil-Noble inhibitors, Thai Bulletin 2016 No. 4 pages 84-86.
- 7. Ibrahimov K.I., Kadirshayev T.Q., Sobirjonov A, etc. Technical service provision in the fuel injection station. T; "Economics-Finance". 2013, 200p.