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## PRINCIPLES OF TERM FORMATION IN CHEMICAL TECHNOLOGY

**Annotation.** In modern English there are many different classifications of terms, which are based on the scope of their use, subject area, content structure, semantics, structure, called concepts, category of the designated concept, historical and word-formation aspect, chronological characteristics. Chemical technology is a relatively young science that emerged at the junction various technical and chemical disciplines. terminological the petrochemical system is characterized by consistency, integrity, stability, as well as the structural complexity of the elements. Chemical technology terms name anew already-existing concepts, tools or instruments, and have the typical properties of a special code. The main feature of a professionalism is its technicality.

**Key words.** Term, terminology, chemical term, technology, inorganic chemical technology, organic chemical technology, transterminologization, abbreviation.

**Аннотация.** В современном английском языке существует множество различных классификаций терминов, которые основаны на сфере их употребления, предметной области, структуре содержания, семантике, составе называемых понятий, категории обозначаемого понятия, историческом и словообразовательном аспекте, хронологических характеристиках. Химическая технология - относительно молодая наука, возникшая на стыке различных технических и химических дисциплин. терминология нефтехимическая система характеризуется системностью, целостностью, стабильностью, а также структурной сложностью элементов. Термины химической технологии обозначают новые, уже существующие понятия, инструменты или приспособления и обладают характерными свойствами специального кода. Главной характеристикой профессионализма является его техничность.

**Ключевые слова.** Термин, терминология, химический термин, технология, технология неорганической химии, технология органической химии, транстерминологизация, аббревиатура.

**Introduction.** Modern man lives in a cultural environment that has evolved over thousands of years. One of the elements of this cultural environment is the language and, above all, special vocabulary, which is understood as “a set of lexical units (primarily terms) of special areas of knowledge, forming a special layer of vocabulary that is most easily amenable to conscious regulation and ordering”[45].

The terms studied in this work are a layer of special vocabulary. This statement can be confirmed by the words of A.A. Reformatsky that the terms are “special words, limited by their special purpose; words that tend to be unambiguous as an exact expression of concepts and naming things”[6].

The set of terms used in a particular field of knowledge is called terminology, and the science that studies terminology is usually called terminology.

**Main part.** One of the issues of terminology is the issue of sources is the replenishment of various chemical technology terminological systems. Throughout development of the terminology as a science many scientists paid attention to the processes of term generation (A.A. Reformatsky, D.S. Lotte, A.V. Superanskaya and others)[6]. The chemical technology terminology of the sphere of nature management is constantly is changing due to the rapid development of its own technologies and adjacency this industry with other industries.

For this reason, it is necessary to study ways of forming the terminological system of chemical technology terms, including for in order to trace the processes of emergence of multicomponent terms.

Chemical technology terms, as the term itself signifies, are the words used in a definite trade, profession or calling by people connected by common interests both at work and at home. They commonly designate some working process or implement of labor. Chemical technology terms are correlated to terms. Terms, as has already been indicated, are coined to nominate new concepts that appear in the process of, and as a result of, technical progress and the development of science.

The origin of the word "technology" (from the Greek "technos" - art, craft and "logos" - teaching, science) fully corresponds to its content: the doctrine of the ability, the art of processing raw materials into useful products.

Chemical technology is a natural, applied science about the methods and processes for the production of products (consumer goods and means of production) carried out with the participation of chemical transformations in a technically, economically and socially expedient way.

Engineering chemistry (according to the Charter of the American Society of Chemical Engineers) is a science that applies the principles of natural sciences, together with the principles of economics and social relations, to a field that directly covers processes and apparatus in which a substance is processed in order to change the state, energy content and/or properties.

As a natural science, chemical technology studies material phenomena and objects (in contrast to them, social sciences - such as philosophy, logic, history - study ideal phenomena).

As an applied science, chemical technology studies production, that is, what is created by man. The end result of research in applied science is the creation of a method of production and management of it. Fundamental science (or "pure" in international terminology) studies natural phenomena in order to obtain more abstract knowledge about them. Both "pure" and "applied" sciences provide fundamental knowledge about the phenomena that take place in the object under study.

The object of study and the result of research in chemical technology is chemical production. Naturally, the processes used in it should be carried out at the lowest cost for starting materials and equipment for their processing, with minimal energy consumption, provide comfortable working conditions and do not harm the environment, i.e., in a technically, economically and socially expedient way.

Chemical technology can be classified according to various criteria, for example, by the nature of the technological processes used, by the raw materials used or consumer products.

By industries, as they historically formed in economic life, chemical technology is divided into two groups.

A. Inorganic chemical technology:

- 1) the main inorganic synthesis - the production of acids, alkalis, salts and mineral products;
- 2) fine inorganic synthesis - the production of inorganic preparations, reagents, rare elements, electronics materials, medicinal substances, etc.;
- 3) nuclear chemical technology - production of products and materials of the nuclear chemical complex;
- 4) metallurgy - production of ferrous and non-ferrous metals;
- 5) silicate technology - production of binders, ceramics, glass.

B. Organic chemical technology:

1) oil and gas processing - primary separation, purification and upgrading of gaseous, liquid and solid natural fossil hydrocarbons;

2) petrochemical synthesis - the production of organic products and semi-products from primary processed petroleum products and oxides of carbon and hydrogen;

3) basic organic synthesis - the production of organic products based mainly on hydrocarbon raw materials;

4) biotechnology - production of fodder yeast, amino acids, enzymes, antibiotics and other products based on biological and biochemical processes;

5) fine organic synthesis - the production of organic preparations, reagents, medicinal substances, plant protection products, etc.;

6) high-molecular technology - obtaining high-molecular compounds (synthetic rubber, plastics, chemical fibers, film-forming substances);

7) technology for processing plant and animal raw materials.

Along with the original and basic definition of chemical technology as a science, this term has also been used in other meanings: as a method of obtaining or producing a certain product (sulfuric acid technology, ammonia technology, gas technology) or as a method of processing raw materials (membrane technology, plasma technology and etc.).

Chemical technology terms name anew already-existing concepts, tools or instruments, and have the typical properties of a special code. The main feature of a professionalism is its technicality. Chemical technology terms are special words in the non-literary layer of the English vocabulary, whereas terms are a specialized group belonging to the literary layer of words.

Terms, if they are connected with a field or branch of science or technique well-known to ordinary people, are easily decoded and enter the neutral stratum of the vocabulary. Chemical technology terms generally remain in circulation within a definite community, as they are linked to a common occupation and common social interests. The semantic structure of the term is usually transparent and is therefore easily understood. The semantic structure of a professionalism is often dimmed by the image on which the meaning of the professionalism is based, particularly when the features of the object in question reflect the process of the work, metaphorically or metonymically. Like chemical technology terms do not allow any polysemy, they are monosemantic.

Some chemical technology terms, however, like certain terms, become popular and gradually lose their professional flavor. Thus, the word crane which Byron used in his "Don Juan" ... was a verb meaning \*to stretch out the neck like a crane before a dangerous leap' (in hunting, in order to 'look before you leap'). Now, according to Eric Partridge, it has broadened its meaning and is used in the sense of 'to hesitate at an obstacle, a danger'. By 1860 it was no more a professionalism used in hunting but had become a colloquial word of the non-literary stratum and finally, since 1890, entered the standard English vocabulary. Chemical technology terms fulfil a socially useful function in communication, facilitating a quick and adequate grasp of the message.

Good examples of chemical technology terms as used by a man-of-letters can be found. A "bull", he learned, was one who bought in anticipation of a higher price to come; and if he was "loaded" up with a "line" of stocks he was said to be "long". He sold to "realize" his profit, or if his margins were exhausted he was "wiped out". A "bear" was one who sold stocks which most frequently he did not have, in anticipation of a lower price at which he could buy and satisfy his previous sales. He was "short" when he had sold what he did not own, and he

was “covered” when he bought to satisfy his sales and to realize his profits or to protect himself against further loss in the case prices advanced instead of declining.

He was in a “comer” when he found that he could not buy in order to make good the stock he had borrowed for delivery and the return of which had been demanded. He was then obliged to settle practically at a price fixed by those to whom he and other “shorts” had sold. As is seen, each financial professionalism is explained by the author and the words themselves are in inverted commas to stress their peculiar idiomatic sense and also to indicate that the words do not belong to the standard English vocabulary in the meanings they are used.

There are certain fields of human activity which enjoy nation-wide interest and popularity. This, for example, is the case in Great Britain where sports and games are concerned. English pugilistic terminology, for example, has gained particularly wide recognition and therefore is frequently used in a transferred meaning, thus adding to the general image-building function of emotive prose. Here is an example of the use of such chemical technology terms in fiction.

Chemical technology terms are used in emotive prose to depict the natural speech of a character. The skillful use of a professional word will show not only the vocation of a character, but also his education, breeding, environment and sometimes even his psychology. That is why, perhaps, a literary device known as speech - characterization is so abundantly used in emotive prose. The use of Chemical technology terms forms the most conspicuous element of this literary device.

Various classifications of ways of forming terminological systems were proposed by many linguists A.A.Reformatsky, A.V.Superanskaya [6], but as the basis of the study the classification proposed by A.V. Superanskaya [7], since, this classification in to the greatest extent takes into account the specifics of the languages studied and objectively reflects their characteristics was accepted. A.V.Superanskaya highlights the following ways:

1. Terminology of words of common language - parallel perception of an object in several planes. To this way include such techniques as metaphor and metonymy, that is, the transfer of the image or characteristic features from one subject to another. For example, pig tale tube "spiral quvur", in English there is a transfer of the image - a spiral looks like a twisted tail of a pig;
2. Transterminologization or intersystem borrowing - the transition of a term from one industry to another, for example, diagnostic "diagnostika" is a medical term. This method is widely applicable to abbreviations, such as API gravity "xom neftning API gravitatsiyasi", where API stands for American Petroleum Institute "Amerika neft instituti". In Computing API application platform Interface "amaliy dasturlash interfeysi", in meteorology Atmospheric Pressure Ionization “atmosfera bosimining ionlanishi”;
3. Term formation based on Greek-Latin term elements - the process of term generation, which is based on a word from Greek or Latin, such as the Latin word sulfur "oltingugurt" is the base for desulfuration "oltingugurtdan tozalash”;
4. Borrowing - the transition of a word from the donor language. Uzbek language actively borrows various terms from English, for example, coefficient "koeffitsienti", dolomites "dolomitlar”;
5. Loan translation - consists in morphemic transmission foreign term by means of the native language, for example, blueshift “ko'k siljish”, pipeline oil “quvur liniyasi nefti”;
6. Abbreviation - abbreviation of too long terms, for example, PVT - Pressure, Vapor and Tempetaure;
7. Derivational term formation - prefixation, suffixation, compounding, that is, changing the form of a word, for example, saturated oil "gaz bilan to'yingan neft" and undersaturated oil "to'yinmagan yog", the process of term creation occurred through the addition of the prefix under.

Uzbek terminological system of chemical technology terms for the most part consists of two-component terms, which does not provide opportunities for studying of complex terms on the basis of which an abbreviation can be formed.

**Conclusion.** When comparing the terminological system of chemical technology terms in Uzbek and English languages, it was found that for both languages the most used method is transterminologization, which is due to the nature spheres of chemical technology terms. Unlike English, in Uzbek there are fewer terms formed on the basis of Greek-Latin elements, reason that the Uzbek language borrows or traces formed terms of the Russian and English languages. In addition, due to the characteristics of the word-formation of the Uzbek language, the Uzbek language more often forms terms in a derivational way, this method, in turn, for English is less applicable. Common word transition vocabulary is typical for the two languages under study, the process of transition is based on the phenomenon of metaphorization. Abbreviations in researched languages are of the smallest number, which is associated with the prevailing two-component terms that do not provide a basis for creating abbreviations.

When comparing the terminological system of chemical technology in Uzbek and English, it was revealed that for both languages the most used method is transterminologization, which is due to the nature of the chemical technology sphere. Unlike the English language, in the Uzbek language there are fewer terms formed on the basis of Greek-Latin elements, due to the fact that the Uzbek language borrows or traces the formed terms of the English language. In addition, due to the peculiarities of the word formation of the Russian language, the Russian language more often forms terms in a derivational way, this method, in turn, is less applicable to the English language. The transition of words of common vocabulary is typical for the two languages under study, the transition process is based on the phenomenon of metaphorization. Abbreviations in the studied languages are the smallest, which is due to the prevailing two-component terms that do not provide a basis for creating abbreviations.

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