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ON THE MODERN INTERPRETATION OF THE HISTORY OF CHEMISTRY

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ANNOTATION
This article provides statements on the harmonization of historical aspects and modern views on the discoveries, achievements, theories and laws of the great chemists who have made an undeniable contribution to the development of chemistry in teaching pupils and students

Keywords: alchemy, history of chemistry, methods of teaching chemistry, chemical science, great chemists.

It is not a secret to anyone that in the pursuit of material and spiritual well-being, the aspects of creativity and initiative of a person are truly manifested. In terms of the modern concept of natural science, chemistry and chemists have made significant contributions to the creation of the general scientific picture of the world. It is known that the basic concepts and laws, theories and rules, hypotheses and conclusions of chemistry are the result of the work of many thousands of dedicated researchers, discoverers, scientists, experts and simply those who have worked diligently in the passion of winning over substances and their transformations. obtained. Leaving aside the work of the chemists of the ancient world, let's remember only the component of the history of chemistry that lasted for 1200 years, called al-chemy. In this case, many thousands of devotees lost their eyes from this bright world, unable to pursue two things - the "stone of philosophy (wisdom)" and the "juice of immortality" (elixir dolgoletiya). But in the words of Shaykh Sa'di, "An eternal person is inside the world, and the rest is a good name and work". agreed. Memorizing them is the first task of those who consider themselves to be chemists. If there were no chemists, how would humanity know about metals such as tin, antimony, bismuth, spirit and non-metals such as sulfur and phosphorus. As German historians of science have rightly pointed out, although alchemy is a living, crippled child of Greek natural philosophy, it has left us many things as a legacy. Lead called "Saturn's skin", dark sulfuric acid called "Oil of vitriol", "Zar suvi" ("horn vodka"), and metals "horn" - a substance that can dissolve gold. Alchemists found and discarded

such substances and mixtures as a mixture of one volume of concentrated nitrate and three volumes of concentrated hydrochloric acid, ethyl alcohol extracted from fermented grape juice, formic acid from the decoction of "ostrich ants" running in the African savannas. Therefore, it is both a duty and a duty for today's chemists to pay respect to the past. The great and great poet A.S. As Pushkin rightly stated, "Respect for the past is the main sign of education that distinguishes it from wildness." The main provider of the victory over fascism, the great general and (4 times) national hero G.K. Zhukov, as noted in the first note in his notebook, "Whoever shoots a pistol at history, the future will shoot him with a cannon".

Another glorious page in the history of chemistry is the era of classical chemistry. The history of science testifies that it has "three fathers" such as J. Dalton, Y. Ya. Bertcellius and A. L. Lavoisier. The great British scientist John Dalton, who introduced scientific atomism to science and established chemistry on a new and deeper basis His Highness), gave the written chemical language to chemists. That is, he introduced chemical symbols (1814) and received the name "king, although he did not wear a crown" among the chemists of the 19th century, and was rightfully recognized as one of the elders of classical chemistry. Benazir and Swedish scientist Jens Jakob Bertselius created the oxygen theory of combustion and made the first scientific revolution in the history of chemistry, freeing this science from the 300-year-old "phlogiston trap". How can one estimate that the name of Antoine Laurent Lavoisier is not known by many people who eat the "bread" of all chemistry?

The chemical scientific and anthropogenic foundation is getting richer by the minute. At a time when science and its technology are rapidly developing, it is appropriate to give a fair assessment of the social, scientific-educational and axiological aspects of the person and to analyze the universal devices created and being created with his participation from the point of view of modernization. Moreover, the principle of historicity of teaching requires this. Constant reference to its history is necessary in the teaching of chemistry. Let today's generation feel that science did not arise by itself! Henry, an English researcher who revealed the properties of "volatile gas" (a mixture of two volumes of hydrogen and one volume of oxygen) and the secret of hydrogen to mankind, and at the end of his life had more explosion scars than smooth facial skin. The debt to the spirit of Cavendish or Dulong, the Farang scientist who lost one hand and one eye due to a controversy during a chemical experiment, also makes us think of the need to refer to history in the teaching of chemistry.

Thanks to the services of many dedicated researchers and hardworking chemists and great scientists, known and unknown to us, chemistry, one of the ancient and secular sciences, has gone through a whole stage of development, and the present age of this science is the basis for the stage of modern chemistry. prepared. At the same time, this science has become the royal branch of natural science.

Chemical science, industry, and related technology, which have effectively served today's world community and each of its members, are dedicated, hardworking, enterprising, searching, always ahead of others, and if they are on fire. and one should not forget that it is the scientific-creative heritage of the modernizers who illuminate the life paths of others.

In the words of John Bernal, the famous historian of science, practical chemistry rests on the "three whales of chemical thermodynamics, chemical kinetics and structural theory", and modern chemistry teaching theory and methodology is based on atomic-molecular theory, periodic law and "composition-structure". "-property", we can correctly determine the perspective of the further development of chemistry by developing the works of a large number of scientists who founded these teachings.

In conclusion, it is necessary to recognize the need to harmonize historicity and modernity in chemistry education, to objectively assess the work of scientists, researchers, discoverers and researchers, who

are the driving force of the scientific machine, and to correctly illuminate the position of chemistry in the life of society. At the same time, the time has come to organize the full-blooded teaching of the current power of chemistry and its technology at the main stages of the continuous education system in an alternative mirror of chemical dedication and chemical indifference. In addition, national and international trends should be carefully integrated into the content of chemical knowledge. In this way, by expressing the real chemical power and potential of the Republic of Uzbekistan, it is possible to instill a sense of patriotism, national pride and pride in students. Such tasks can be solved correctly only by joining the national landscape of secular science to the general scientific landscape of the material world.

It is the need of the time to inculcate the three standardized types of continuing education - general secondary education, secondary special education, vocational education and the principles of harmonizing historicity and modernity into the requirements and content of higher education.

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