

## Summary

The dissertation entitled *Formation of Polish chemical nomenclature against the background of historical scientific discourse (17th - early 20th century)* is devoted to the description of the shaping of Polish chemical nomenclature against the background of historical scientific discourse (18th - early 20th century). Chemistry belongs to the natural sciences and is of a strict and experimental nature. In the genesis of this discipline, two sources are indicated: philosophical (speculative) and practical - related to the craft, which brought knowledge about various substances and their transformations. The work is an interdisciplinary dissertation in which reference is made to specific realities related to the history and development of Chemistry. Extending the research perspective (going beyond just the linguistic vision of the problem, taking into account the then discourse of chemical sciences) allowed for a consistent interpretation of the described process. Polish chemical nomenclature dates back to the beginning of the Old Polish period, when the first lexemes related to craftsmanship and metalworking, the production of dyes and the production of medicinal agents appeared. Along with the development of Alchemy in Poland, the first prototerms, i.e. specialistic words used in this pre-scientific period of development of specialized knowledge in Chemistry, appeared. It was mainly laboratory vocabulary - factual nomenclature naming activities and processes. At the turn of the 18th and 19th centuries, Chemistry achieves the status of a science thanks to the development of a coherent research methodology. It was primarily implied by a change in understanding the concept of an element and the emergence of the first scientific method of research. Chemists begin to study various substances, describing their composition, properties and reactivity. They publish papers with the results of their research and see a real problem in the form of a lack of appropriate terminology. Antoine Lavoisier - considered one of the fathers of modern Chemistry - wrote in 1789 about the three aspects that constitute this science. An important element is the appropriate conceptual apparatus. It emphasizes the symbiosis of science and terminology, only such a relationship based on the appropriate language generates the correct development of each field of science (Lavoisier 2001: 12).

The aim of the work is to describe the process of developing Polish terminology of Inorganic Chemistry, taking into account all changes dictated by the development of this scientific discipline, as well as to compare Polish nomenclature with terms created in Latin, French, Spanish and English. In the dissertation, attempts have been made to show ways of creating terms (also of a system) based on three principles: topicality, purposefulness and systemicity (Gajda 1990a: 92-94). In this work, I adopt the definition of the term by

Gajda (1976: 21, 29) viewing it as a lexical unit (lexeme, phraseological relationship) that performs a special function in specific areas of knowledge. It refers to specific objects (both material and concepts) in a strict and unambiguous manner (EJO 55-56). In line with the practice so far (Lotte 1961; Lukszyn, Zmarzer 2001, Zmarzer 2005), I distinguish theoretical (proper) terms and nomens, including those of anonymous origin (no proper names in the described material). The nomens, of both appellative and onimic origin, are characterized only by individual reference. Proper terms refer to general concepts.

The study takes into account various types of terms: individual, textual and systemic (Gajda 1990a: 52-53), due to their origin - native and borrowed.

The research and description presents the historical context accompanying the discourse, with particular emphasis on the situation in the country at that time (partitions).

In order to implement the assumptions of the work, the research material was excerpted from 90 sources in Polish - mainly articles and textbooks from 1568-1912, and 15 in French, English and Spanish. In this way, 1,674 names were obtained, including 1,381 Polish ones, among which 170 are general vocabulary units that had been terminologized - these are mainly the names of laboratory equipment, activities, states and processes, 183 are preterms. 1028 are terms with their various graphic and phonetic forms. The remaining analyzed names come from other European languages (comparison).

The work consists of two parts: theoretical and analytical-material. The first consists of 3 chapters. The chapter that opens the work presents the history of Chemistry in Poland and in the world, including the most important achievements leading to the development of the discussed science. The key issue at that time was to understand and define the concept of an element. This part ends with the history of Chemistry in Poland. The second chapter is devoted to discourse (the ambiguity of the concept, scientific discourse, including chemical one, and elements constituting the discourse). The last chapter concerns specialized language, characteristic of the language of science, for which the most important determinant is the existence of terminology. This chapter also highlights the definition of the term, its types, and the history of chemical terminology in the Polish language.

The second part consists of 4 chapters. Polish sources were used to create a corpus of texts (discussed in more detail in Chapter IV), on which surveys of a frequency and statistical nature have been carried out, and the terms were chronologized. For this purpose, the corpus has been divided into three smaller corps: 1. from 1769 - 1844, 2.

1850 - 1867, 3. 1872 - 1910. Chapter V is a kind of lexicon in which the most important terms in the field of Inorganic Chemistry (nomens) are presented, so, first of all, the names of elements discovered until 1899, as well as chemical compounds: acids, bases and inert bodies, both aerobic and anaerobic. The intra-system dependencies of individual terminological deposits are shown. The names of the elements are discussed in alphabetical order, taking into account their etymology, international name, definition, discoverer, as well as various nomenclature variants in Polish. A considerable group of names of onimic origin has been abstracted and described. The development of chemical compounds has been presented with the help of tables which has made it possible to highlight the nomination methods used by chemists: Ignacy Fonberg (who draws on the terminology of Śniadecki, but extends it a bit), Jan Kanty Krzyżanowski, Filip Neriusz Walter, Emilian Czyrniański, the creators of *Chemical Vocabulary Project*, Teodor Teofil Matecki, January Filipowicz and Walerian Tomaszewicz, and the Skills Academy.

Chapter VI is an overview of laboratory nomenclature. It presents the names of the furnaces, their parts, the names of vessels, devices and tools, and the names of the activities of the processes. Most of them are lexical units taken from the general language and appearing in a special function. We can talk about three ways of derivation (nomination) in this nomenclature: semantic, morphological and syntactic (Gajda 1990: 89). The most frequently used procedure is semantic derivation (new semantic function) and morphological, less often syntactic, derivative. These terms belong to the broader sphere of terminology (Michałowski 2017: 19) of the natural sciences.

The last chapter is a comparison of Polish terminology with international terminology - Latin, as well as French, English and Spanish. The choice of these languages is due to several reasons. Latin names are also present today in chemical terminology as the international names of the elements from which chemical symbols were formed. French was an international language in the 19th century, and it was in France that the first fully standardized and structured chemical dictionary was created. Today, English is the language of science, including Chemistry, which is proved by the publication of the latest achievements in the discipline in the English language. The Spanish language was chosen due to similar phenomena accompanying the development of chemical terminology in Spain and Poland. The excerptation of terms in these languages and their compilation in tables have made it possible to notice the uniqueness of Polish nomenclature against the European background.

Two currents met in the process of Polish chemical terminology development. The first

patriotic, whose representatives postulated the necessity to create Polish names for the sake of the survival of the national language at the period of partitions. The second one was related to internationalization, noting its advantages (facilitating international scientific communication by introducing common and unambiguous terms). The shaping of the Polish nomenclature continued throughout the 19th century. Partitions, which hindered contact between individual research centers, contributed to the development of two separate terminologies: Krakow and Warsaw. This fact hindered the development of Chemistry and adversely influenced the development of industry. At the end of the 19th century, most scientists perceived as a negative fact the lack of uniformity of chemical terminology. On their initiative, linguists were included in the joint project of unifying chemical terminology. As a result of these activities, a single, common Polish chemical terminology was created on the threshold of independent Poland.

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