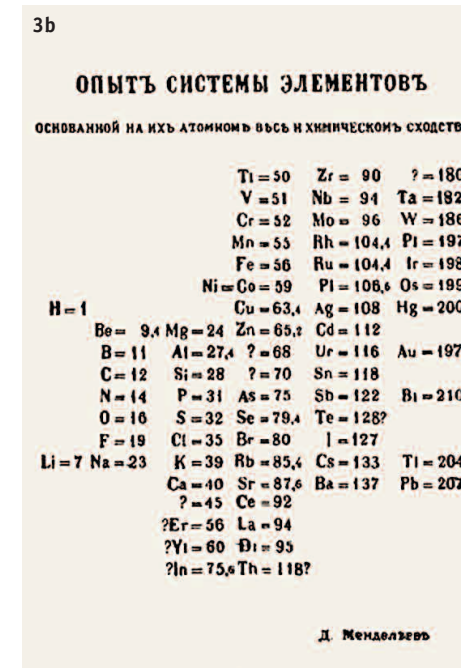
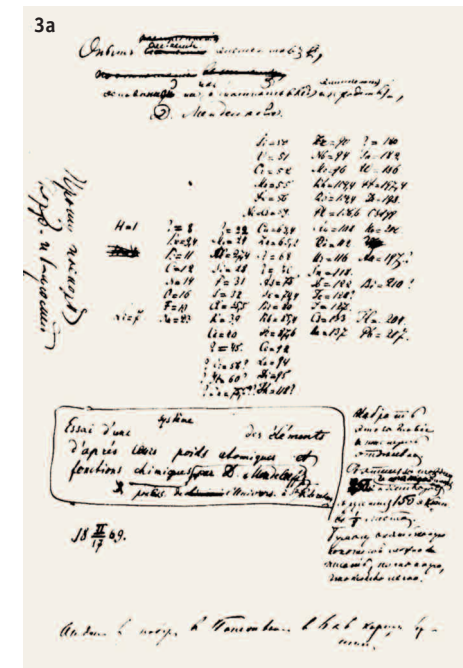


The first version of the renowned periodic table, developed by the distinguished Russian chemist Dmitriy Ivanovich Mendeleev (*Fig. 2*), was published in 1869. To mark its 150th anniversary in 2019, the UN proclaimed it the International Year of the Periodic Table of Chemical Elements (*Fig. 1*). It is on the basis of the periodic table that scientists search for answers to the many mysteries concealed by Mother Nature. Besides, the history of the table's creation highlights the nonlinear process that usually accompanies scientific progress (Pushcharovsky, 2019).

In 1856, Mendeleev returned to Saint Petersburg and defended his Master thesis in chemistry. In 1864, he was elected Professor of Chemistry at Saint Petersburg State Institute of Technology, and a year later, in 1865, he defended his Doctoral thesis. After another two years, he took up a position at the Department of Inorganic Chemistry at Saint Petersburg University.

3. Mendeleev's manuscript *Essay on the system of elements according to their atomic weights and chemical qualities*, 17 February 1869.
3a: the first version of the periodic system, used before his presentation for the members of the Russian Chemical Society and
3b: published at the beginning of the first two editions of the Foundations of Chemistry in March 1869.
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Mendeleev worked at the Saint Petersburg University until 1890, and it is this period that is linked to his most significant achievement: the discovery of the Periodic Law and creation of the Periodic Table of Chemical Elements. In October 1867, the scientist started teaching *the Foundations of Chemistry* course to students. In 1868–1871, he presented it in five books under the same title. While working on this publication, Mendeleev noticed that the properties of chemical elements are clearly subject to a certain periodicity. This pattern became especially clear when he arranged the elements according to their atomic weights, although, as it turned out later, some values did require adjustment. Later, this approach allowed him to predict the existence of some chemical elements which were yet unknown at the time.

tion. At this time, he also finished working on the corresponding article, which was published in the same year in the *Journal of the Russian Chemical Society*, the first Russian chemical journal (Mendeleev, 1869) (Fig. 3b). Recognising the need for international recognition, Mendeleev sent the table to his colleagues in Western Europe. Besides, on the 6th of March, his famous report *On the Relationship between Properties and Atomic Weights of Elements* was presented by Professor N.A. Menshutkin, the first editor of the Journal of the Russian Chemical Society, to the assembly of the Russian Chemical Society. It is not clear whether the presentation was made by the author. According to some sources, he had to leave Saint Petersburg on the 17th of February to inspect a cheese factory in the Tver Province, but his departure was postponed to the beginning of March due to the discovery of the Periodic Table. However, according to other reports, Dmitriy Ivanovich delivered the presentation himself at the meeting of the Chemical Society on the 6th of March.

Mendeleev continued to gradually improve the first version of the Periodical System until 1871, which is when the table took the familiar format that we know today (Mendeleev, 1871) (Fig. 4). In the same year, he lectured on the periodic table in several well-known chemical centres and presented his article *The Periodic Law of Chemical Elements*.

As is often the case with important discoveries in natural sciences, several researchers in different countries were also thinking about the periodicity of the chemical elements at the same time. In relation to Mendeleev's discovery, it is worth