

151 years of the periodic table of elements

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The periodic table, as an icon of chemistry, surrounds us in both academic and research areas. The periodic assemble of elements reflecting physical and chemical behavior of elements and their compounds was firstly proposed by Dmitriy Ivanovich Mendeleev in 1869. To honor this event, United Nations General Assembly and UNESCO proclaimed 2019 “The International Year of the Periodic Table of Chemical Elements (IYPT2019)”.

In this presentation, we will look back to the history of human knowledge about elements, paying a special attention to Mendeleev’s periodic law proposal. Today’s periodic table situation and future prospects will be also summarized. The IUPAC criteria for the validation of an element discovery and for naming of a new element will be outlined and, the last but not least, the collection of elements and their stable natural compounds, that was installed at the Department of Inorganic Chemistry in UCT, will be presented as a new tool in the education of general and inorganic chemistry in bachelor study courses.