

Mendeleev Dmitry Ivanovich (1834 – 1907)



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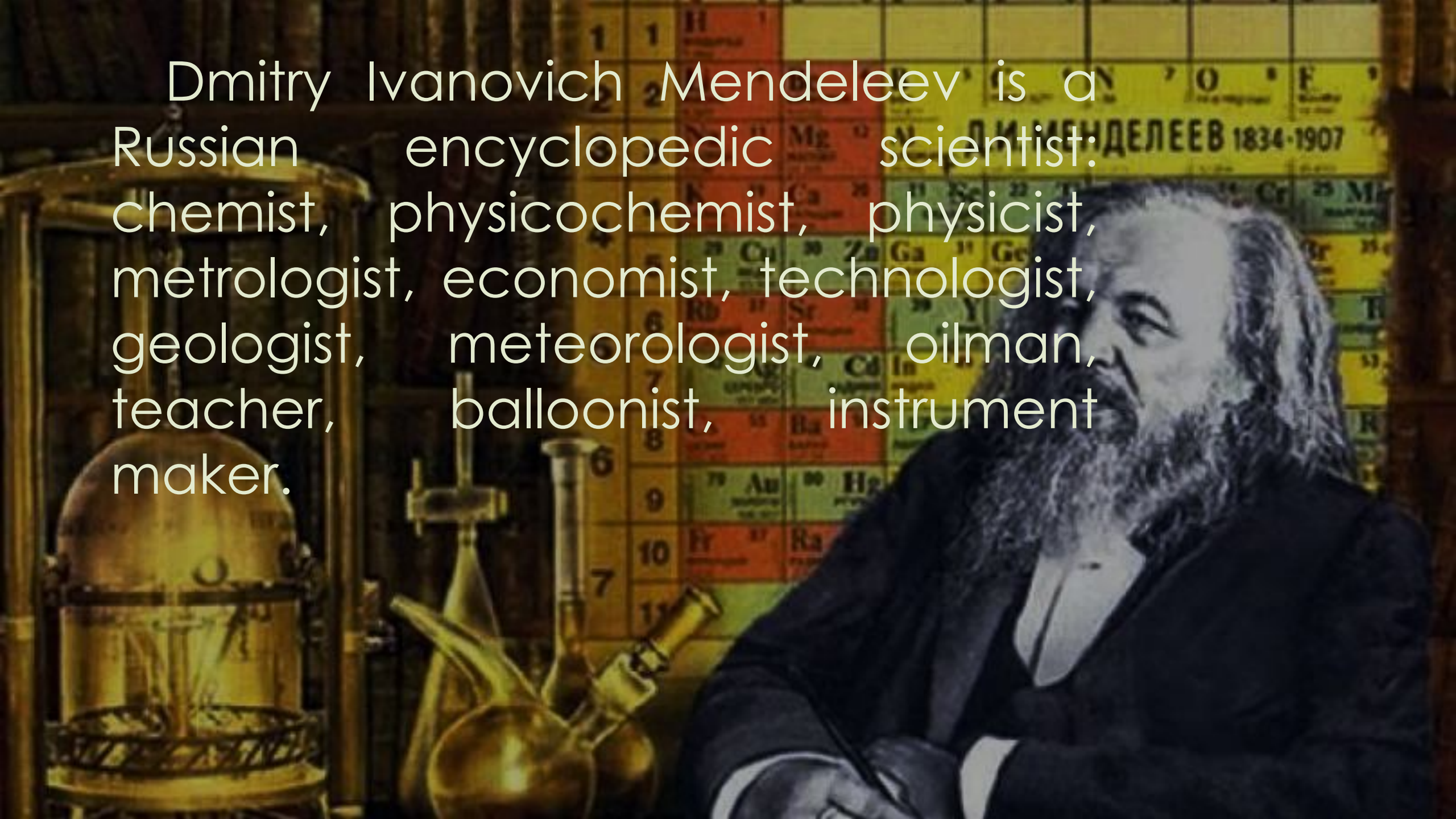
Chemical structure of DNA
DNA is a nucleic acid that contains the genetic instructions used in the development and functioning of all known living organisms and some viruses. The information DNA contains is often compared to a set of blueprints or a recipe, or a code, since it contains the instructions needed to construct other molecules of cells, such as proteins, and RNA molecules. The DNA segments that carry this genetic information are called genes, but other DNA sequences have structural purposes, or are involved in regulating the use of this genetic information.

Chemically, DNA consists of two long polymers of simple units called nucleotides, with phosphate groups linked by ester bonds. These two strands run in opposite directions to each other and are therefore anti-parallel. Attached to each sugar is one of four types of molecules called bases. It is the sequence of these four bases along the backbone that encodes information. This information is read using the genetic code, which specifies the sequence of amino acids within proteins. The code is read by copying stretches of DNA into the related genetic acid RNA, in a process called transcription.

Within cells, DNA is organized into long structures called chromosomes. These chromosomes are duplicated before cells divide, in a process called DNA replication. Eukaryotes, organisms with a nucleus, have the DNA organized into many chromosomes, each with a centromere and some of their DNA is organized into mitochondria or chloroplasts. In contrast, all prokaryotes have a single circular DNA molecule, which is not enclosed by a membrane, and is often associated with other molecules, such as histones, compact and organized into a nucleoid. These compact structures provide the cell with a high density of DNA and other proteins, allowing a small cell to fit a large genome.



Dmitry Ivanovich Mendeleev is a Russian encyclopedic scientist: chemist, physicochemist, physicist, metrologist, economist, technologist, geologist, meteorologist, oilman, teacher, balloonist, instrument maker.

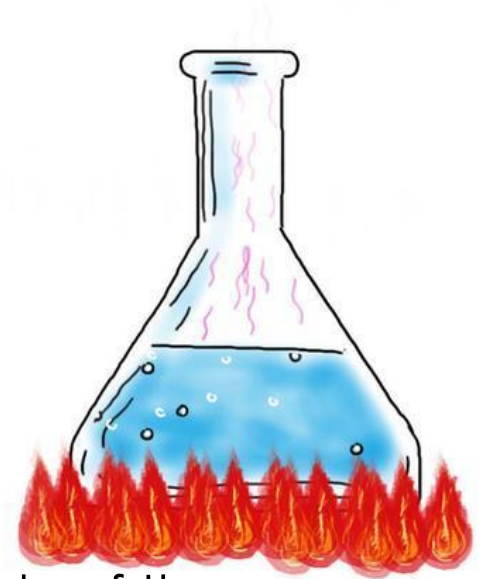


Periodic table of chemical elements

Mendeleev is best known for his table. There is a legend that Mendeleev made his discovery of the periodic law in a dream. However, Dmitry Ivanovich stated that he had been working on the table for 20 years.

In 1869, a Russian chemist completed the first version of the periodic system of elements. In 1871, Mendeleev formulated the periodic law and created a second version of the table, improved.

Mendeleev is a physicist



- Mendeleev's research in physics focused on the study of the thermal properties of substances.
- He pointed out the existence of the "boiling point" of liquids, later called the "critical temperature".
- Dmitry Ivanovich generalized the Claperon's equation, obtaining the general equation of an ideal gas.



Mendeleev is an aeronaut

In 1887, Mendeleev made a balloon ascent alone to observe a solar eclipse and study the upper layers of the atmosphere.



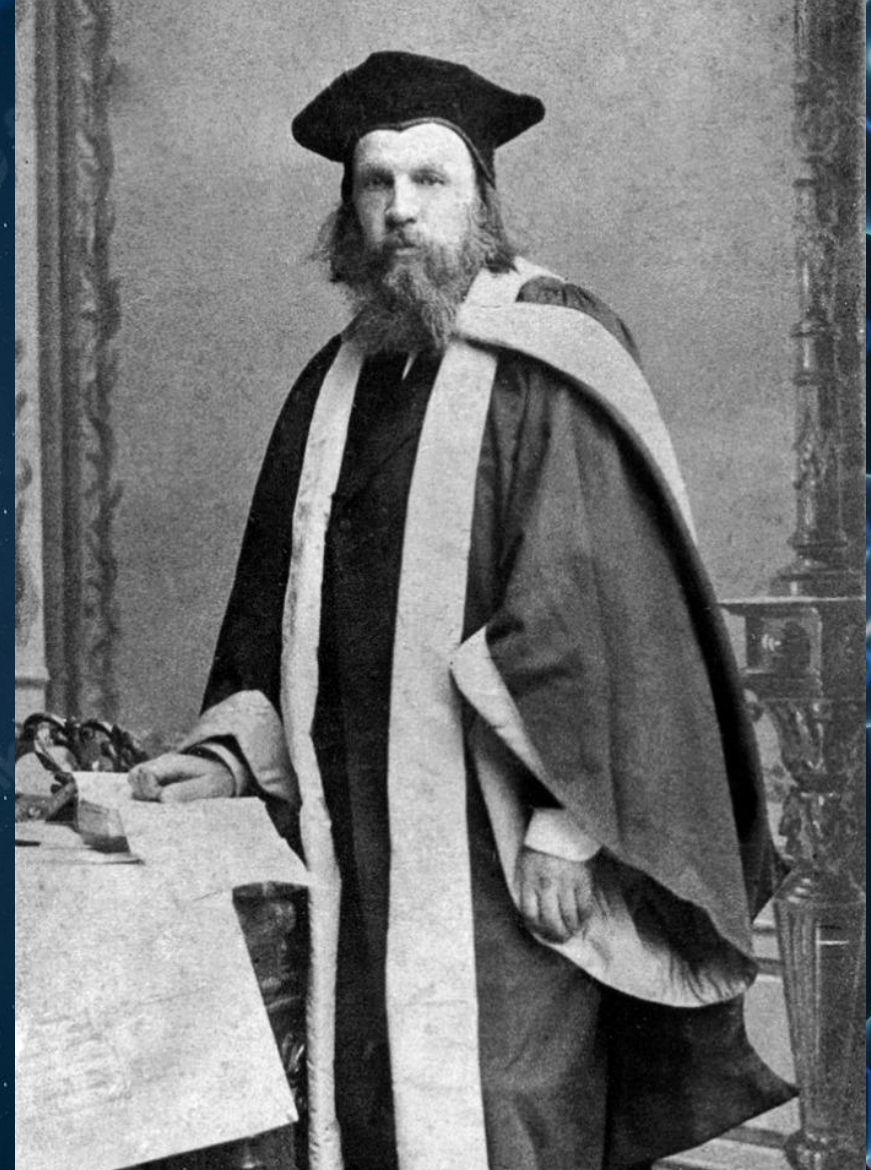
Mendeleev is an inventor

- In 1859, Mendeleev designed a pycnometer - a device for determining the density of a liquid.
- Also he owns the design of the barometer.



The name of the great Russian scientist D.I. Mendeleev

- After Mendeleev's death, his name was also given to the Russian Chemical Society.
- Every year on January 27, the birthday of the scientist, a solemn meeting takes in St. Petersburg. At this event, the authors of the best works in chemistry are presented and awarded D.I. Mendeleev's medals.



Thank you for attention!!!

