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Introduction

Mendeleev

Mendeleev is known as the father of the periodic table because he is the first to organize the elements in a successful and acceptable manner by the scientific community.

- Elements with similar properties are grouped together in columns
- The elements are organized by their atomic mass

Modern

[illegible]

- Elements are no longer ordered by atomic mass but atomic number

Modern (cont.)

- It can be utilized to find out how many protons, electrons, and neutrons are in an atom of an element
- The placement of each element on the periodic table can also serve as a hint in finding out the electronegativity, number of valence electrons, number of orbitals, or even the size of an atom of an element
- All of this information can be used to discover the type of bond each element has the ability to form and its chemical behavior
- Periodic tables can be color coded to define the classification of each element

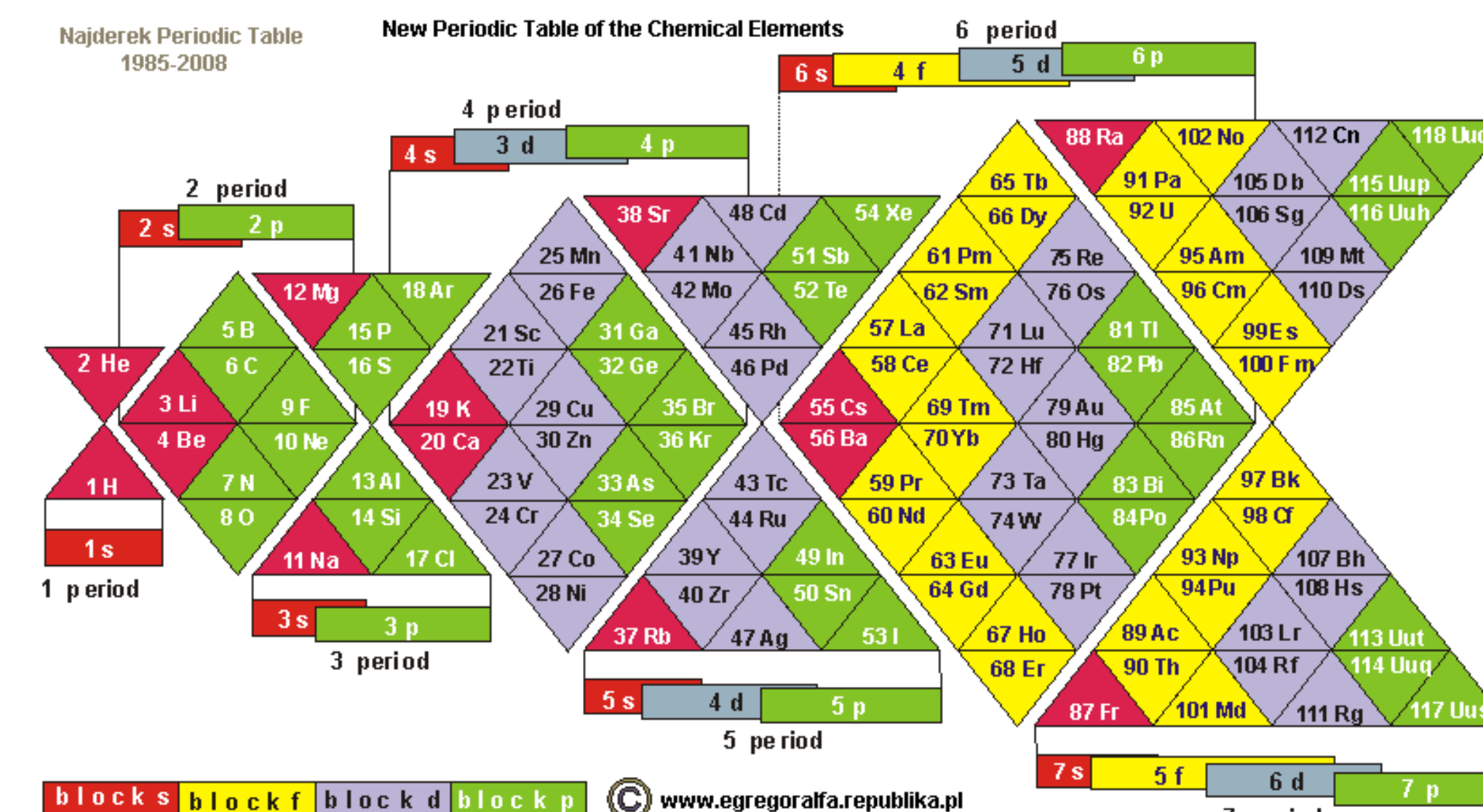
Mayan

- The elements are ordered according to its electron shells (concentric circles)
- The reactivity of each element can be easily identified and compared
- The proportion of compounds can be predicted “by looking at the ‘hops’ that an element must take to get to the noble gases... for elements to combine, one should be from the left and one from the right. The number of hops an atom takes to get to the vertical line must equal the number its partner on the other side takes, unless one is gaining an electron and one is losing one” (Fincher)

Cons:

- Only works with elements that are closely located to the noble gases
- The outer shells of the elements can sometimes be filled before their inner shells

Najderek



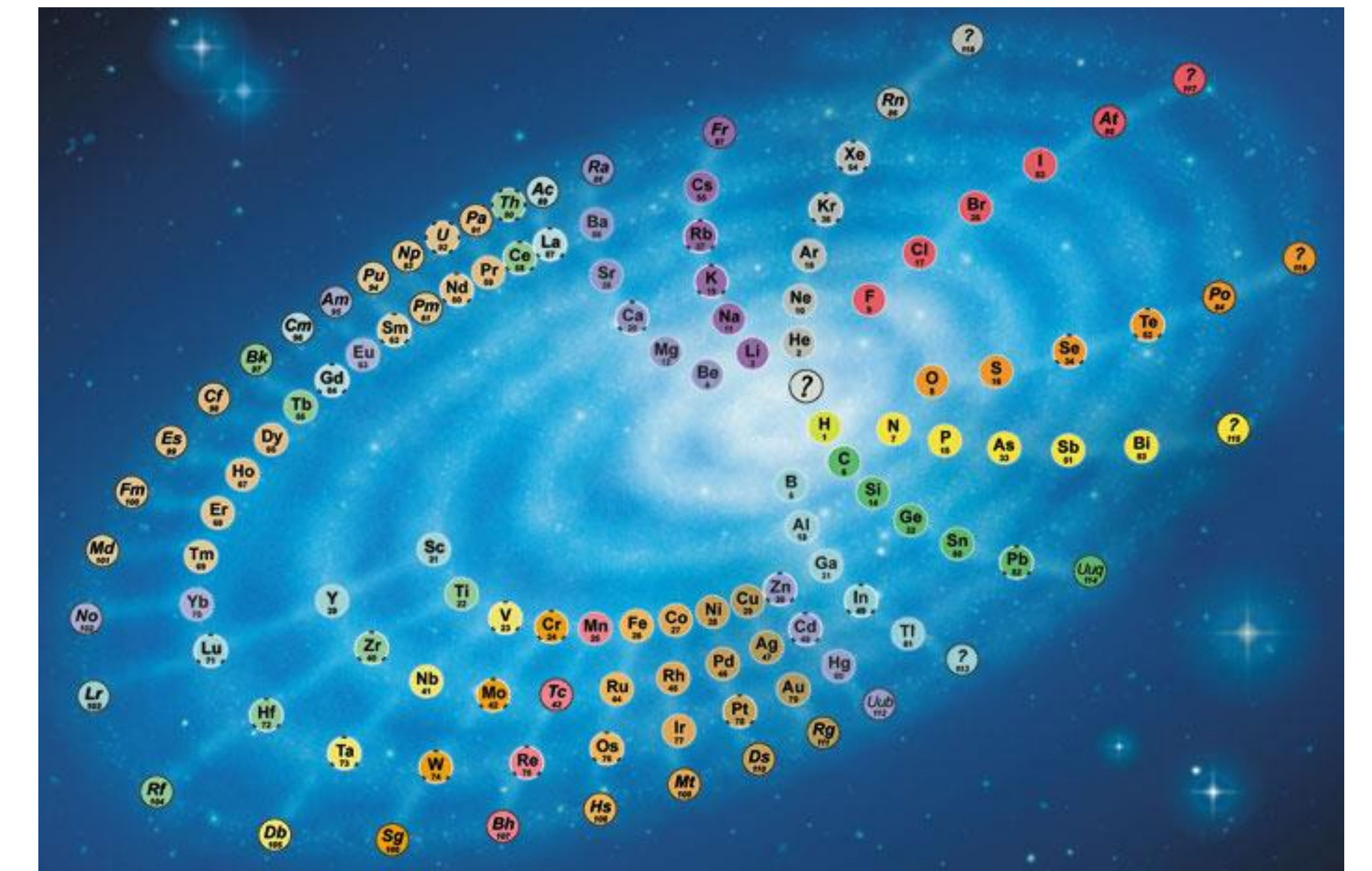
- The Najdereck could incorporate as many new elements or periods as scientists go on to discover without making any major revisions to it (adaptable)
- Identification of the electron orbitals can be made by looking at the color codes (block) and label (sub level) given to that element
- Follows the theoretical principles that go along with quantum chemistry
- Fully integrates the Lanthanides and Actinides without making a separate footnote for these elements

Janet Form

[illegible]

- It can be used to figure out the electron configuration of an element
- It is easy to recreate since it only rearranges the modern periodic table

Chemical Galaxy II



- Meant to be used alongside the periodic table to trigger the creative minds and imaginations of chemists
- The spiral shape allows no room for interruptions
- Elements that share similar chemical properties are lined up together in curved spokes which the creator argues is an easier way to memorize the elements
- Various colors, fonts, and rings are equivalent to certain aspects of an element

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