

Download Periodic Trends In Atomic Properties

Answers

Summary of Periodic Trends. The Periodic Table of Elements categorizes like elements together. Dmitri Mendeleev, a Russian scientist, was the first to create a widely accepted arrangement of the elements in 1869. Mendeleev believed that when the elements are arranged in order of increasing atomic mass, certain sets of properties recur periodically. Periodic Trends Trend for atomic size (atomic radius)- Down a group, size increases Occurs because # of E levels increases & Electrons shielding reduces amount of attraction between nucleus and outer electrons Across a period, size decreases # of protons increases (nuclear charge increases), pulling electrons closer Electron shielding doesn't change because Periodic trends are specific patterns that are present in the periodic table that illustrate different aspects of a certain element, including its size and its electronic properties. Major periodic trends include: electronegativity, ionization energy, electron affinity, atomic radius, melting point, and metallic character. Periodic trends, arising from the arrangement of the periodic table, provide chemists with an invaluable tool to quickly predict an element's properties. Both of them relate to the pull of the nucleus on the electrons, as the atomic number (and number of protons in the nucleus) goes up, the pull also goes up. 8. Deselect all and choose any one group in the periodic table, with the same x- and y-axes that you used above.