

An Alien Periodic Table

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The purpose of this exercise is to correctly place, given certain physical and chemical properties, unknown elements into a blank periodic table.

The Story

Earth's scientists have announced that they have made radio contact with intelligent life on a distant planet. One of this alien's languages has been translated and the scientific information has begun to be exchanged. The planet is composed of the same elements as the earth. However, the aliens have different names and symbols for the elements. Since they don't know the names of our elements, they have sent descriptions of theirs with certain properties. There is no information on the transition metals or rare-earths, so all you have to do is put their elements into our abridged periodic table. Good luck!

1. The inert gases are bombal (Bo), wobble (Wo), jeptum (J), and logon (L). Bombal is a noble gas but does not have 8 valence electrons. The outside energy level of logon is its second energy level. Of these gases, wobble has the greatest atomic mass.
2. The alkali metals are xtalt (X), byyou (By), chow (Ch), and quackzil (Q). Of these, chow has the lowest atomic mass. Quackzil is in the same period as wobble.
3. The halogens are apstrom (A), vulcania (V), and kratt (Kt). Vulcania is in the same period as quackzil and wobble.
4. The metalloids are ernst (E), highho (Hi), terriblum (T), a and sississ (Ss). Sississ is the metalloid with the highest atomic mass. Ernst is the metalloid with the lowest atomic mass. Highho and terriblum are in Group IV. T has more protons than Hi. The element yazzzer (Y) is a metalloid by location, but is really a light metal..
5. The most metallic element is xtalt. The most chemically active non-metal is called apstrom. The lightest element is called pfsst (Pf). The heaviest element on the planet is Elrado (El).
6. The chemical makeup of the alien planet's oceans seems to be the same as Earth's oceans. When seawater is distilled, the liquid that is boiled off and condensed has been shown to have molecules consisting of two atoms of pfsst and one atom of nuutye (Nu). The solid left behind after distillation mainly consists of a crystal made up of the elements byyou and kratt.

