INTRODUCTION

My periodic table is arranged in a spiral format with Hydrogen at the centre. It is attached to Halogens on the right and Alkali metals on the left. It is also connected to Helium to signify that both have their outermost electron in the s orbital. Some of the elements have a rather peculiar shape to make the table continuous and without any anomaly. Lanthanides and Actinides are also included in the main body. To understand the table, you have to proceed along the spiral in a counter-clockwise fashion. Thus, the periods will be along the spiral and the groups will be roughly perpendicular to the spiral. Consider the placement of the elements carefully as only those elements are related which are in direct contact. Note that the table resembles an atom with Hydrogen as its nucleus. Hydrogen, whose nucleus is a part of all other elements, has been rightfully placed at the centre in my table similar to the way nucleus is placed in an atom. Also, the spiral size increases each time we move to the next period, signifying the addition of a shell to the atom of an element and the corresponding increase in size.
Figure 1: Sketch of my alternative design of the modern periodic table.

SOLUTION OF ANOMALIES

POSITION OF HYDROGEN & HELIUM

The properties of Hydrogen resemble both alkali metals and halogens; therefore it is placed in the middle connected to both groups. In addition it lies in the s-block along with Helium and is thus connected to it with a line indicating that Hydrogen resembles only Helium, and no other noble gas, in this regard.

POSITION OF F-BLOCK

Lanthanides and Actinides have been included in the table by including a projection in the table giving further evidence of the flexible structure of the table. This also suggests a way to include the g-block elements in the table when they are discovered.

Number of elements

I have found the maximum number of elements possible by using the formula for velocity of electron in nth orbit, considering the 1st orbit (as the electron has the maximum velocity in this case and thus it will approach the speed of light earliest) and equating it to the speed of light (as nothing can go faster than the speed of light). The answer comes out to be 137.61 and applying the greatest integer function to it yields 137. Using IUPAC nomenclature for elements over the atomic number 112, I have accordingly included 137 elements in my version of the periodic table. This is based on the assumption that the simple velocity of electron formula holds for all elements. According to the atomic theory,
Here $v$ is Velocity of electron, $Z$ is atomic number and $n$ is the principal quantum number. Equating Velocity of electron with the speed of light,

$$v = 2.18 \times 10^6 \text{ m/s} \times \frac{Z}{n}$$

Taking $n = 1$;

$$Z = \frac{3 \times 10^8}{2.18 \times 10^6}$$

$$Z = 137.61 \text{ & Greatest Integer (Z) } = 137$$

Conclusion

Through my periodic table, I have resolved the position of Hydrogen and Helium and included Lanthanides and Actinides in the main body of the periodic table. I have calculated the total number of elements possible in the universe. I have arranged the table in the form of an atom – thus including the knowledge of the atomic hypothesis in the periodic table. Also, the structure of my periodic table indicating the progressive filling up of energy levels gives an idea of the structure of the atom and the quantum theory. Building upon existing knowledge, my periodic table provides a refreshingly new way of arranging the elements. Overall, my periodic table is an alternative modern periodic table free of all anomalies.