Briefly about periodic table

At present, 118 elements are known to us. All these have different properties. Out of these 118, only 94 are naturally occurring.

The earliest attempt to classify the elements resulted in grouping the then known elements as metals and non metals

Drawbacks of Döbereiner's Triads

He could identify only three triads from the elements known at that time

Newlands' Law of Octaves

John Newlands is an English scientist. Born In 1866

He arranged the then known elements in the order of increasing atomic masses.

He started with the element having the lowest atomic mass (hydrogen) and ended at thorium which was the 56th element

He found that every eighth element had properties similar to that of the first. He compared this to the octaves found in music. Therefore, he called it the 'Law of Octaves'. It is known as 'Newlands' Law of Octaves'.

Döbereiner's Triads

Johann Wolfgang Döbereiner is a German chemist. Born in the year 1817

He tried to arrange the elements with similar properties into groups. He identified some groups having three elements each. So he called these groups 'triads'.

when the three elements in a triad were written in the order of increasing atomic masses; the atomic mass of the middle element was roughly the average of the atomic masses of the other two elements.

Some of the triads are :

1) Li,Na,K

2) Ca,Sr,Ba

3) Cl,Br,I

Drawbacks of Newlands' Law of Octaves

It was found that the Law of Octaves was applicable only upto calcium, as after calcium every eighth element did not possess properties similar to that of the first.

In order to fit elements into his Table, Newlands adjusted two elements in the same slot. we can observe that cobalt and nickel are in the same slot

He did not leave any space for the further discovery of elements

Newlands' Law of Octaves worked well with lighter elements only

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