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RESEARCH ARTICLE

KRUTIK'S STRUCTURE OF MODERN PERIODIC TABLE.

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No particular affiliation it is my own work.

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Abstract

Modern periodic table is the structure which is used for study of elements, it has groups and periods, but it has several drawbacks like position of elements and I tried to solve them in my structure. In my new structure I cut the two groups and joint them as Hydrogen and Helium

got their proper places, Lanthanides and Actinides got their proper places they jointed in periodic table, in third group 6th and 7th period the position is filled with proper elements. Upcoming elements will get their proper place in periodic table, groups and periods can be unlimited, periodic arrows are added in periodic table which is new structure. Number of blocks can be increase as the new orbital will be found. I don't have objection on Henry Moseley's rule but on his structure. Several drawbacks in it I tried to overcome.

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Introduction:-

Modern Periodic Table is the arrangement of elements and Modern periodic law is 'Properties of elements are periodic functions of their atomic numbers',

In modern periodic table, there are 7 periods and 18 groups, horizontal rows called periods and vertical columns called groups but there are several drawbacks.

The Krutik's periodic table, this periodic table covers 4 drawbacks of Mosley's design of modern periodic table

1. Place for Hydrogen, Hydrogen forms two ions proton (H⁺, 0 electrons) like alkaline metals and (H⁻, 2 electrons) this is like halogens, so it should be in both group, but it is put in the middle front of the periodic table this is not proper.
2. Place for Helium, Helium has electronic configuration 1s², which is like alkali earth metals. According to electronic configuration its place can be in second group but due to its property it is in 18th group, so it may be a drawback.
3. There are 15 Lanthanides in 6th group Lanthanium is the first element and Lutetium is the last element. There is a confusing condition for place of element at 3rd group and 6th period, that which element should be kept there, Lanthanium or Lutetium.
4. There are 15 Actinides in 7th group Actinium is the first element and Lawrencium is the last element. There is a confusing condition for place of element at 3rd group and 7th period, that which element should be kept there, Actinium or Lawrencium.

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1. Hydrogen got new proper place.
2. Helium also got proper place.
3. Problem of lanthanides solved.
4. Problem of actinides solved.

The diagram illustrates the periodic table of elements, with red arrows indicating the order of electron filling according to the Aufbau principle. The arrows show the sequence of increasing energy levels, starting from the bottom left (1s) and moving through the s, p, d, and f blocks. The elements are arranged in rows and columns, with the following elements labeled:

			Fr	Cs	Rb	K	Na	Li	H	F	Cl	Br	I	At	Uus	
			Ra	Ba	Sr	Ca	Mg	Be	He	Ne	Ar	Kr	Xe	Rn	Uuo	
										P1	P2	P3	P4	P5	P6	P7

The red arrows indicate the order of electron filling, starting from the bottom left (1s) and moving through the s, p, d, and f blocks. The arrows show the sequence of increasing energy levels, starting from the bottom left (1s) and moving through the s, p, d, and f blocks. The elements are arranged in rows and columns, with the following elements labeled:

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										P1	P2	P3	P4	P5	P6	P7

My new structure of Modern periodic table is as shown above, it overcomes all drawbacks in structure of Modern Periodic Table.

In Modern Periodic Table

In my above design of Modern Periodic table that drawback is recovered.

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In my design,
Helium is kept between two groups, Alkali Earth Metals' group and Noble Gases, due to this place of Helium satisfies condition of chemical properties as well as condition of electronic configuration.

In Modern Periodic Table,

In my design,

Empty place is filled with proper element, Lawrencium according to electronic configuration. All lanthanides got proper place according to electronic configuration.

Features of my new design

1. All elements got proper places.
2. Lanthanides got proper places.
3. Actinides also added in modern periodic table.
4. Lanthanides and actinides got separate groups.
5. Periods are vertical and joined with periodic arrows (red coloured arrows).
6. Groups are horizontal, excepting group of alkali metals and alkali earth metals all goes left to right, but group of alkali metals and alkaline earth metals goes right to left .
7. New groups can be added. Above lanthanum's group.

8. New blocks can be added. Above f-block if it will be discovered.
9. Periodic arrows are new direction indicating arrows. Which joins two parts of periodic table in my design.
10. New periods can be added.

