

NOTE**Elements of Nature**

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Less than ninety elements occur in nature.¹ Transuranic elements are artificial elements and these elements are unstable also.²

Why Earth has less than ninety elements? Why transuranic elements are unstable?

This limitation of elements in the universe is due to the simple harmonic motion of hydrogen in first period of periodic system.³

The periodic table is based on the simple idea of flat space and time. The groups represent time and the periods represent space and hydrogen represents the unit mass. All the groups and periods of the periodic system are produced by the simple harmonic motion of hydrogen on a background of space-time because all the properties of the elements are manifestations of curvature of space and time caused by hydrogen—the unit element.

The Periodic Time and Frequency: The periodic time of hydrogen can be calculated by the following formula:⁴

$$\begin{aligned} T &= \frac{2\pi}{\omega} = 2\pi \sqrt{\frac{\text{displacement}}{\text{acceleration}}} \\ &= 2\pi \sqrt{\frac{\text{displacement in atomic number}}{\text{space-time curvature}}} \\ &= 2\pi \sqrt{\frac{\text{displacement in atomic number}}{\text{properties of atomic number}}} \end{aligned}$$

$$T = \frac{44}{7} K_1$$

$$T = \frac{K_2}{7} \quad \text{if } 44K_1 = K_2$$

$$\text{Frequency} \quad \nu = \frac{1}{T}$$

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$$= \frac{7}{K_2}$$

Thus due to simple harmonic motion of hydrogen, seven periods are possible in the periodic system.

In this way 44 positions are allotted in 7 periods in sp-block of periodic table or part A of periodic table which contains 13 s-block and 31 p-block elements.

In the same way 44 positions are allotted in df-block of periodic table or part B of periodic table which contains 14 f-block and 30 d-block elements.

Elements beyond this limit will disintegrate themselves—a process known as radioactivity.

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REFERENCES

1. A.K. Baraha and B.K. Upadhyaya, Chemistry, XI, M.P.T.C., Bhopal, p. 73 (1996).
2. S.R. Sahu and J.P. Nema, Chemistry, XI, Yugbodh Publication, Raipur, p. 137 (1997).
3. S.I. Pothen, *Asian J. Chem.*, **7**, 453 (1995).
4. A.L. Banpela, Physics, XI, Yugbodh Publication, Raipur, p. 440 (1997).

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