

On the Origin of Atoms

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If energy is seen as having relative displacement based on atomic mass then it is possible to see how the atom was envisaged [1].

Using the following figures for atomic mass the point can be made;

Gold Foil: 196.9665u

Alpha Particle: 4.0015u

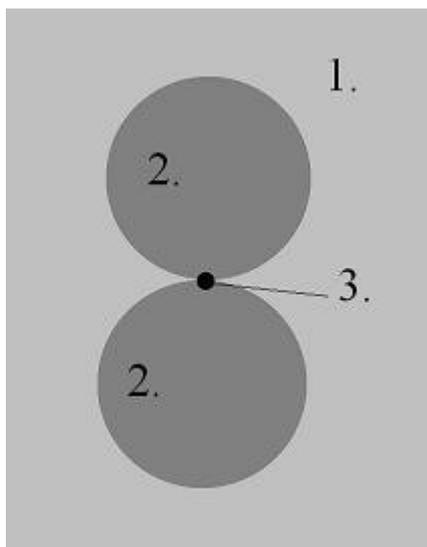


Figure 1. Diagram to show three important stages (not to scale)

1. Energy with a displacement value of 196.9665u (gold foil)

2. Energy with a displacement value of 4.0015u (alpha particle) enters the gold foil. By dividing 196.9665u by 4.0015u we get a figure of 49.2232u. This means 49 alpha particles can fit together in gold foil.

3. As more alpha particles enter the gold foil the energy changes at the centre of the 'atom' to a point where the energy displacement value is 0.2232u. This means that any alpha particles coming into this area are deflected because the energy with a displacement value of 4.0015u can not enter energy with a displacement value of 0.2232u.

I hope this gives an insight into the reality of atoms.

References

[1] Geiger H. and Marsden E. "On a Diffuse Reflection of the α -Particles," Proceedings of the Royal Society, Series A 82: 495–500, 1909.