

# Positron

**Positron** is an elementary particle with a tiny mass and a positive elementary charge. It represents the **positively charged counterpart of the electron**. Positrons are created only during artificial radioactive transformations.

The positron was first discovered by irradiating aluminum with particles  $\alpha$ :  $^{27}_{13}\text{Al} + ^4_2\alpha \rightarrow ^{30}_{15}\text{P} + ^1_0\text{n}$  a  $^{30}_{15}\text{P} \rightarrow ^{30}_{14}\text{Si} + ^0_1\text{e}$

If an  $\alpha$  particle hits the aluminum nucleus, it is transformed into an isotope of phosphorus due to the emission of a neutron. This in turn immediately decays into a silicon isotope, while the nucleus emits a positron.

## References

### Articles

- Elektron-pozitronové páry
- Záření beta
- Positron emission tomography

### Source

- GÄRTNER, Harald. *Kompendium chemie*. 1. edition. Euromedia Group - Knižní klub, 2007. ISBN 978-80-242-2012-3.