

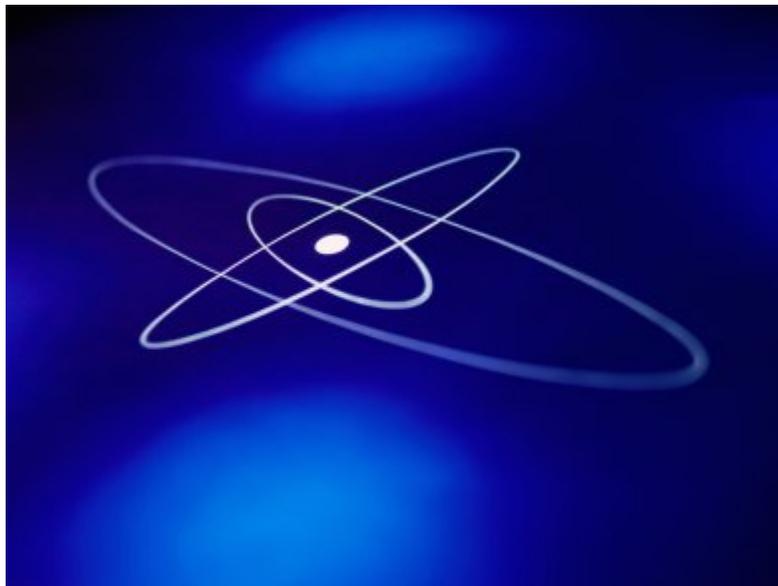
# 140th Birthday of Ernest Rutherford



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**Ernest Rutherford is known as the father of nuclear physics.** Born on August 30th 1871 in New Zealand, he attended the University of New Zealand, Wellington, and graduated in 1893 with a double first in Mathematics and Physical Science. He moved to McGill University, Montreal, Canada, in 1898, where he worked on radioactive bodies, particularly on the emission of alpha rays. He differentiated and named alpha and beta radiation and discovered the concept of radioactive half-life. For this work, he was awarded the Nobel Prize in Chemistry in 1908.

Rutherford performed his most famous work after he had moved to Cambridge University, UK, in 1907. His investigations into the scattering of alpha rays and the nature of the inner structure of the atom which caused such scattering led to the postulation of the "nucleus" as a concept. He was instrumental in defining elements by their atomic number.

Rutherford died in 1937 and was buried in Westminster Abbey, London, UK, next to other great scientists such as Newton and Kelvin. In 1997, element 104 was named rutherfordium in his honor.

### **Update** (July 11, 2018)

We have changed the article to reflect historical research published in 2016. The article originally stated that Rutherford was the first to deliberately transmute one element into another—nitrogen into an oxygen isotope. However, it was Patrick Blackett, a research fellow working under Rutherford, who showed that a transmutation was taking place. We would like to thank Steven B. Krivit for bringing this to our attention.

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### See also

[200th Birthday of Robert Wilhelm Bunsen](#)

Robert Wilhelm Bunsen did groundbreaking work in organic chemistry and spectrometry, but he's most famous for the