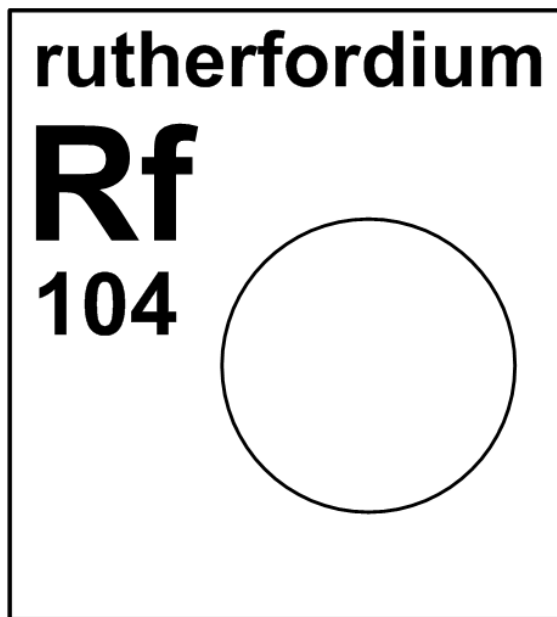


4.104 rutherfordium



Stable isotope	Relative atomic mass	Mole fraction
(none)		

Half-life of radioactive isotope

Less than 1 hour

Between 1 hour and 1 year

²⁵³ Rf	²⁵⁴ Rf	²⁵⁵ Rf	²⁵⁶ Rf	²⁵⁷ Rf	²⁵⁸ Rf	²⁵⁹ Rf	²⁶⁰ Rf	²⁶¹ Rf	²⁶² Rf
²⁶³ Rf	²⁶⁵ Rf	²⁶⁷ Rf							

Rutherfordium does not occur naturally in the Earth's crust. Credit for the first synthesis of this **element** is given jointly to Albert Ghiorso and his team at the University of California in Berkeley and Georgi Flerov and his team at the Joint Institute for Nuclear Research (JINR) in Dubna, Russia. The element is named for Ernest Rutherford (Figure 4.104.1), who won the Nobel Prize for developing the theory of radioactive transformations [642].

Rutherfordium is of interest in particle physics research, but it has no commercial applications. ²⁶¹Rf was one of the **decay products** used to confirm synthesis of copernicium in a particle accelerator experiment [631].

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Fig. 4.104.1: Element 104 was named rutherfordium in honor of Ernest Rutherford. (Photo Source: Los Alamos National Laboratory) [642].