

30 Meteorites collected in Antarctica can be used to date the solar system by using the radioactive decay of rubidium-87 to strontium-87. The half-life for this decay is 4.88×10^{10} years.

In a particular meteorite the present ratio of strontium-87 to rubidium-87, after correcting for the presence of strontium when the meteorite formed is 0.082.

How old is the meteorite?

- A** 4.00×10^9 years
- B** 5.55×10^9 years
- C** 6.02×10^9 years
- D** 4.48×10^{10} years