

30 The ratio $^{14}\text{C} : ^{12}\text{C}$ of living material has a constant value during life but the ratio decreases after death because the ^{14}C is not replaced. The half-life of ^{14}C is 5600 years.

The ^{14}C content of a 5 g sample of living wood has a radioactive count rate of about 100 per minute. If the count rate of a 10 g sample of ancient wood is 50 per minute, the age of the sample is about

- A** 1400 years. **B** 2800 years. **C** 5600 years. **D** 11200 years.

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