#78006 Chemistry, Other

The count rate of a material is 2016 Bq. After 35 days it has fallen to 63. What is the half life?

Answer:

Logic of the process is the following:

 $2016 \qquad \mathsf{Half-life} \quad 1008 \qquad \mathsf{Half-life} \quad 504 \qquad \mathsf{Half-life} \quad 252 \qquad \mathsf{Half-life} \quad 126 \qquad \mathsf{Half-life} \quad 63$

Going from 2016 to 63 there are 5 half-lives.

If 5 half-lives take 35 days, each half-life is equal to $35 \div 5 = 7$ days.

Therefore, the half-life of the material is 7 days.