

PDF Quiz 6: Decay Kinetics RDCH 702

Assigned: 10-Oct-18

Due: 20-Oct-18

Last Name: _____

First Name: _____

1. You have a sample of ^{239}Pu . The alpha decay activity is 20 Bq. You count this sample for 250 seconds in a detector that detects 7.5 % of the alpha decays. Select the counts one would expect within one standard deviation.

485 360 302 5000 150 380 375 425 370 307

2. Is the average lifetime of a radionuclide less than, equal to, or greater than the half life? _____

3. You have a sample of ^{238}U that was purified 10 years ago. The activity of ^{238}U in this sample is 702 Bq. What is the activity of the ^{234}Th daughter?

_____ Bq

4. 1 Curie is equal to how many Bq? 1 Ci = _____ Bq

Digital Signature