

CHAPTER 12—RADIATION

Due Nov 12 at 1:59pm	Points 10	Questions 5	Time Limit None
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Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	998 minutes	10 out of 10

! Correct answers are hidden.

Score for this quiz: **10** out of 10
Submitted Nov 10 at 12:32pm
This attempt took 998 minutes.

Question 1

2 / 2 pts

The daily dose limit for germicidal UV radiation at 254 nm is 6.0 mJ/cm². Suppose a worker is exposed to an (unweighted) irradiance of 0.01 mW/cm² at this wavelength. How long in minutes can the worker be exposed without exceeding the dose limit?

☐ 6

☐ 2.78E-5

☐ 0.00167

☒ 10

☐ 600

Question 2

2 / 2 pts

If you start with 300 μCi of iodine-131, how much, in μCi , will you have after 25 days? (I-131 has a half-life of 8.04 days.)

☒ 34.8

☐ 24.5

☐ 7.59

☐ 240

Question 3

2 / 2 pts

Why is ionization biologically significant?

☐ It can confer superpowers like it did for Spider Man.

☒ It can lead to cellular or molecular damage.

☐ It can reduce static charges on surfaces.


☐ It can transmute metals.

Question 4


2 / 2 pts

Match the following terms to their meanings.

Physical half-life

The amount of time it 

Biological half-life

The measure of how l 

Isotope

Atoms with the same ▼

Ionizing Radiation

Electromagnetic wave ▼

Question 5

2 / 2 pts

What is the minimum photon energy level of ionizing radiation?

☐ 112 Joules

☐ 233 BTU

☒ 12.4 eV

☐ 87 ergs/g

☐ 8.2 eV

Quiz Score: **10** out of 10