

## 21 Conversion from Units of Radioactivity

UNITS OF RADIOACTIVITY	
1 Bq (Becquerel)	= 1 disintegrations per second ( $s^{-1}$ )
1 Ci (Curie)	= $3.7 \times 10^{10}$ disintegrations per second = $3.7 \times 10^{10}$ becquerels = $2.22 \times 10^{12}$ disintegrations per minute
1 $\mu$ Ci (microcurie)	= $3.7 \times 10^4$ becquerels
UNITS OF ABSORBED DOSE	
1 Gy (gray)	= 100 rad
1 mGy (milligray)	= 100 mrad (millirad)
1 cGy (centigray)	= 1 rad
UNITS OF DOSE EQUIVALENT	
1 Sv (sievert)	= 100 rem
1 mSv (millisievert)	= 100 mrem (millirem)
1 cSv (centisievert)	= 1 rem
UNITS OF ENERGY	
eV (electron volt)	
1 MeV (million electron volts)	= $10^6$ (electron volts)
1 KeV (kilo electron volts)	= $10^3$ (electron volts)
COMBINATION OF UNITS	
rem/hr	rem per hour (dose rate)
mrem/hr	millirem per hour (dose rate)
disintegration/s	disintegrations per second (radioactivity)
count/s	counts per second (instrument count rate)
DPM/m <sup>2</sup>	surface contamination (DPM per square meter)
DPM/m <sup>3</sup>	air contamination (DPM per cubic meter)
Ci/m <sup>3</sup>	gas or liquid contamination (curies per cubic meter)
$\mu$ Ci/kg	gas or liquid contamination (microcuries per kilogram)
DAC-hr	Exposure to airborne contamination (DAC x hours)