



Carbon-14

Characteristics

- Radioactive half-life: 5730 years
- Decay mechanism: Beta emission
- Energy: $E_{\max} = 156 \text{ keV}$
 $E_{\text{avg}} = 49 \text{ keV}$
- Contamination monitoring:
Thin window Geiger-Mueller
detector, liquid scintillation counter
for wipe surveys
- Dosimetry: Urinalysis

Diffusiveness

- Some C-14 labeled compounds can penetrate gloves and skin.
- Wearing two pairs of gloves and changing the outer pair every fifteen or twenty minutes will reduce the chances of absorption through the skin

Detection Difficulty

- C-14 may be difficult to distinguish from S-35. If both nuclides are being used in the same laboratory.
- Establish controls to ensure they are kept separate. If "unknown" contamination is found, treat it as C-14.