

HW#17

Isotope	T_r	T_b	T_e	Health concern
Sr^{90}	29 a	50 a	18.3544 a	Replaces Ca in bones
Cs^{137}	30.17 a	70 d	69.5578 d	Replaces Na & K in all muscles
I^{131}	8.041 d	138 d	7.5983 d	Intend thyroid irradiation
Ti	12.33 a	12 d	11.9621 d	very minimal to non-existent

To find T_e , use the formula

$$T_e = \left(\frac{1}{T_r} + \frac{1}{T_b} \right)^{-1} \quad \text{w/ proper units}$$