## Answer on Question #50331, Chemistry, Other

What is the beta decay equation for  ${}^{81}TI_{205}$ ?

## Answer:

Beta decay ( $\beta$  decay) is a type of radioactive decay in which a proton is transformed into a neutron, or vice versa, inside an atomic nucleus. This process allows the atom to move closer to the optimal ratio of protons and neutrons. As a result of this transformation, the nucleus emits a detectable beta particle, which is an electron or positron.

In fully ionized state, the isotope <sup>205</sup>Tl becomes beta-radioactive, decaying to <sup>205</sup>Pb

 ${}^{81}\text{Tl}_{205} \rightarrow {}^{82}\text{Pb}_{205} + {}^{-1}\text{e}_0 + \bar{\upsilon}$