

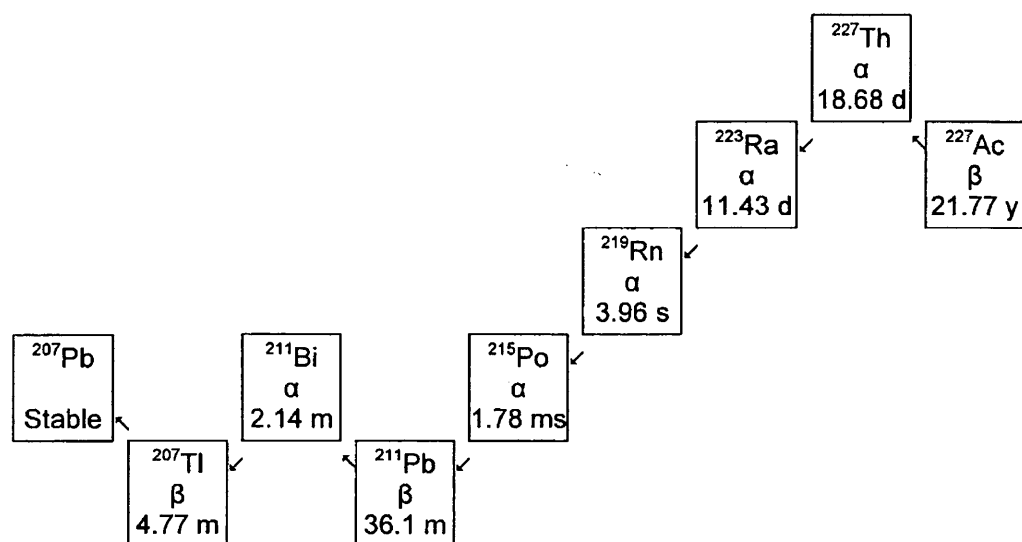


Figure 1. Decay scheme of ^{227}Ac to stable ^{207}Pb . Branches with less than 2% probability are omitted.

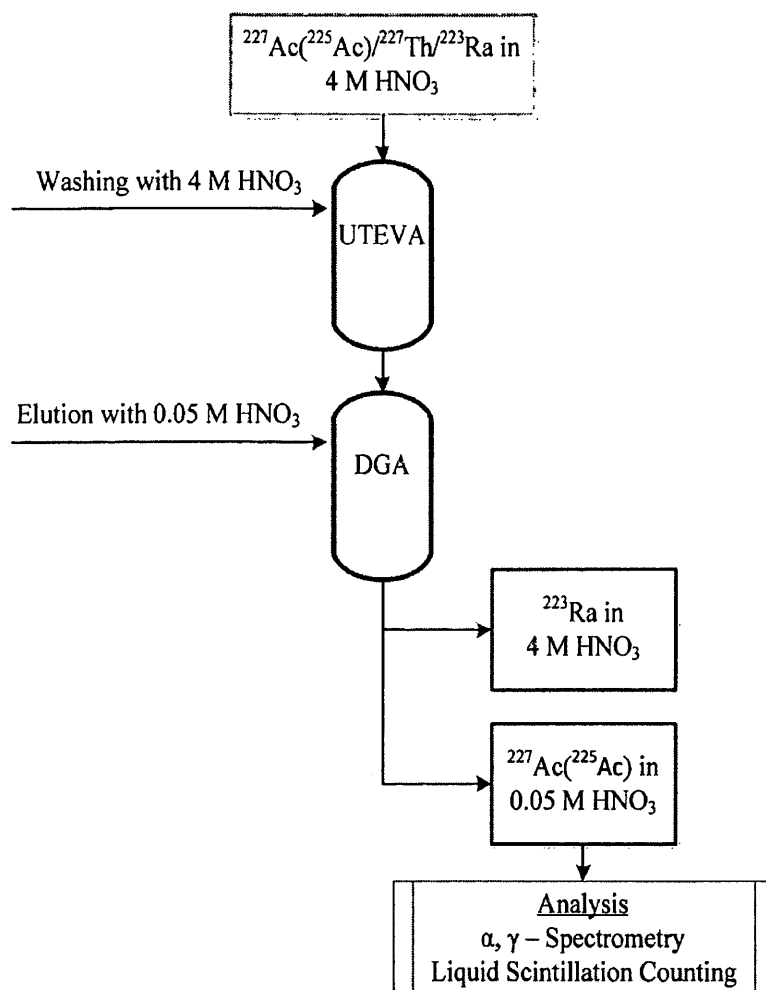


Figure 2. Process flow-chart for actinium, thorium and radium separation and purification using the method of the invention - extraction is shown using aqueous HNO_3 of particular concentrations by way of example only.

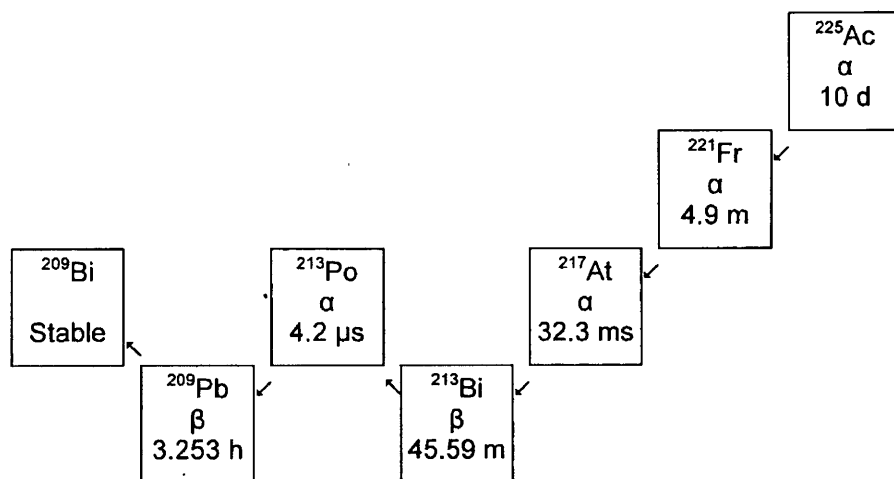


Figure 3. The decay scheme of ^{225}Ac and daughter radionuclides to stable ^{209}Bi .

5

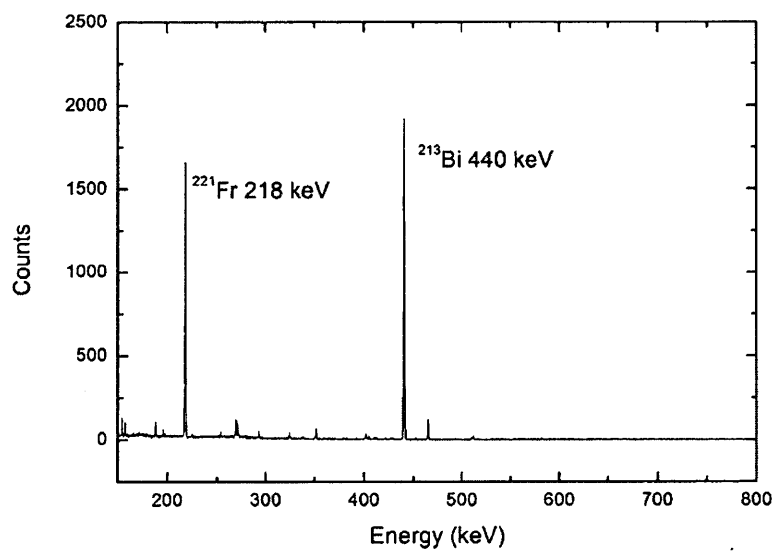


Figure 4. HPGe γ -spectrum of ^{225}Ac daughters ^{221}Fr and ^{213}Bi

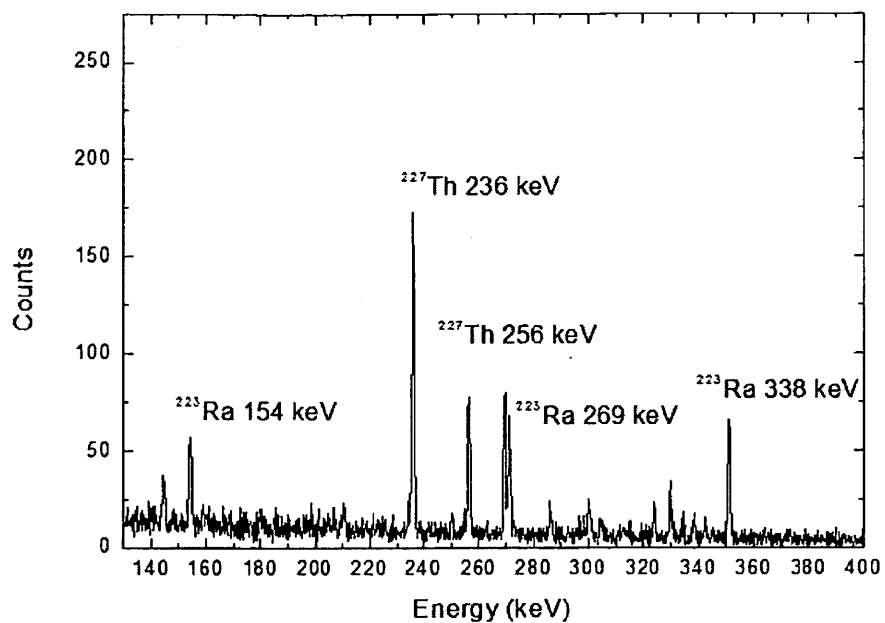
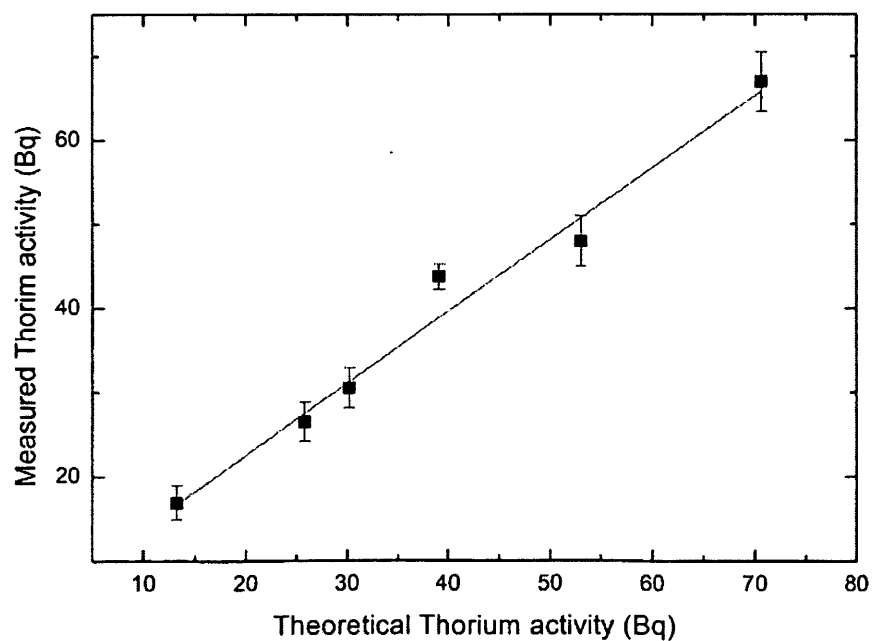


Figure 5. HPGe γ -spectrum of in-growth of ^{227}Th from ^{227}Ac 24 hours after separation from ^{223}Ra -chloride drug substance



5

Figure 6. Linearity of measured versus theoretical ^{227}Th amount in ^{223}Ra chloride drug substance.