

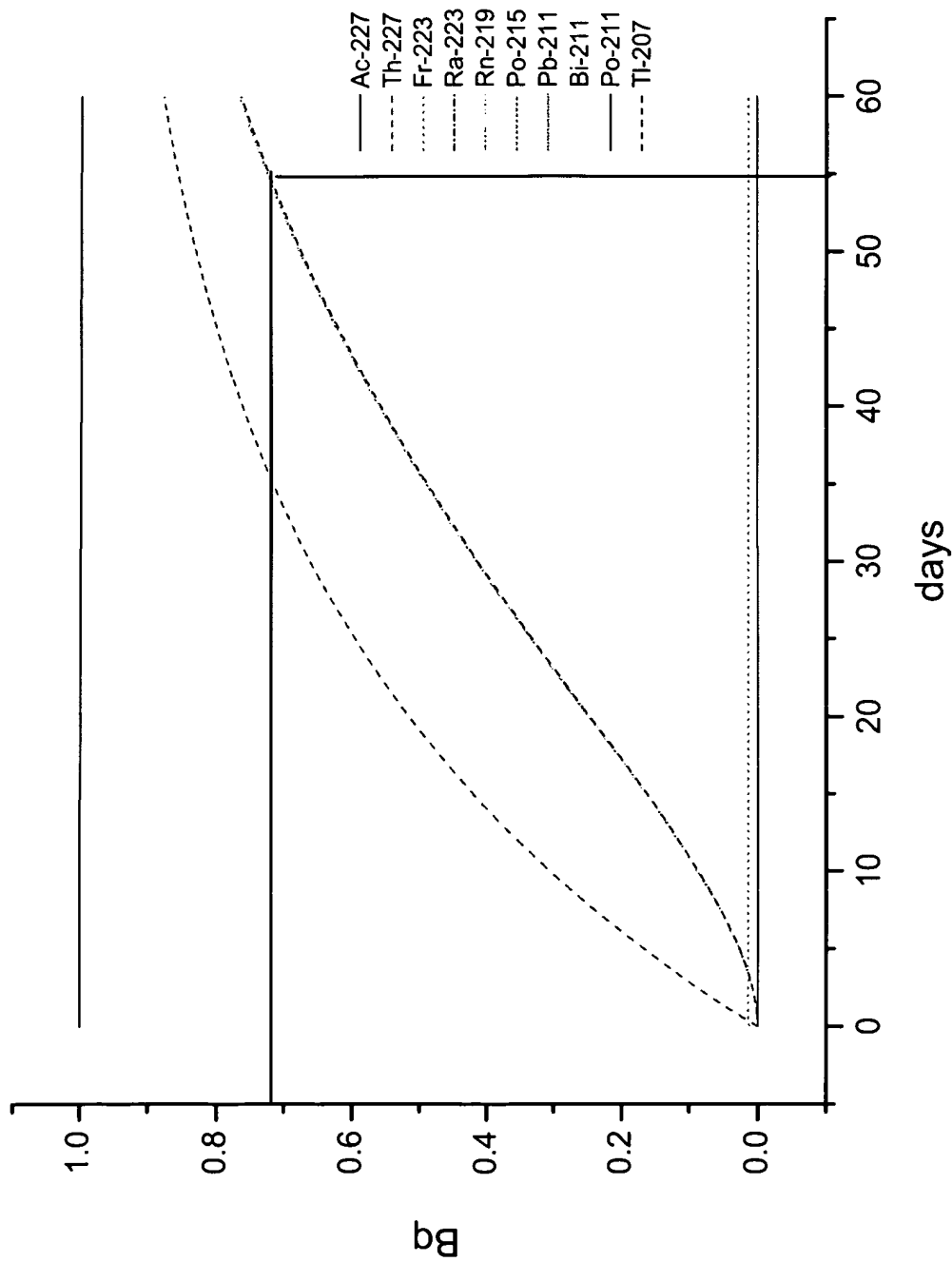


Figure 1 Ingrowth of ^{227}Th and ^{223}Ra into ^{227}Ac . The vertical line mark the time needed to have 72 % ingrowth of ^{223}Ra .

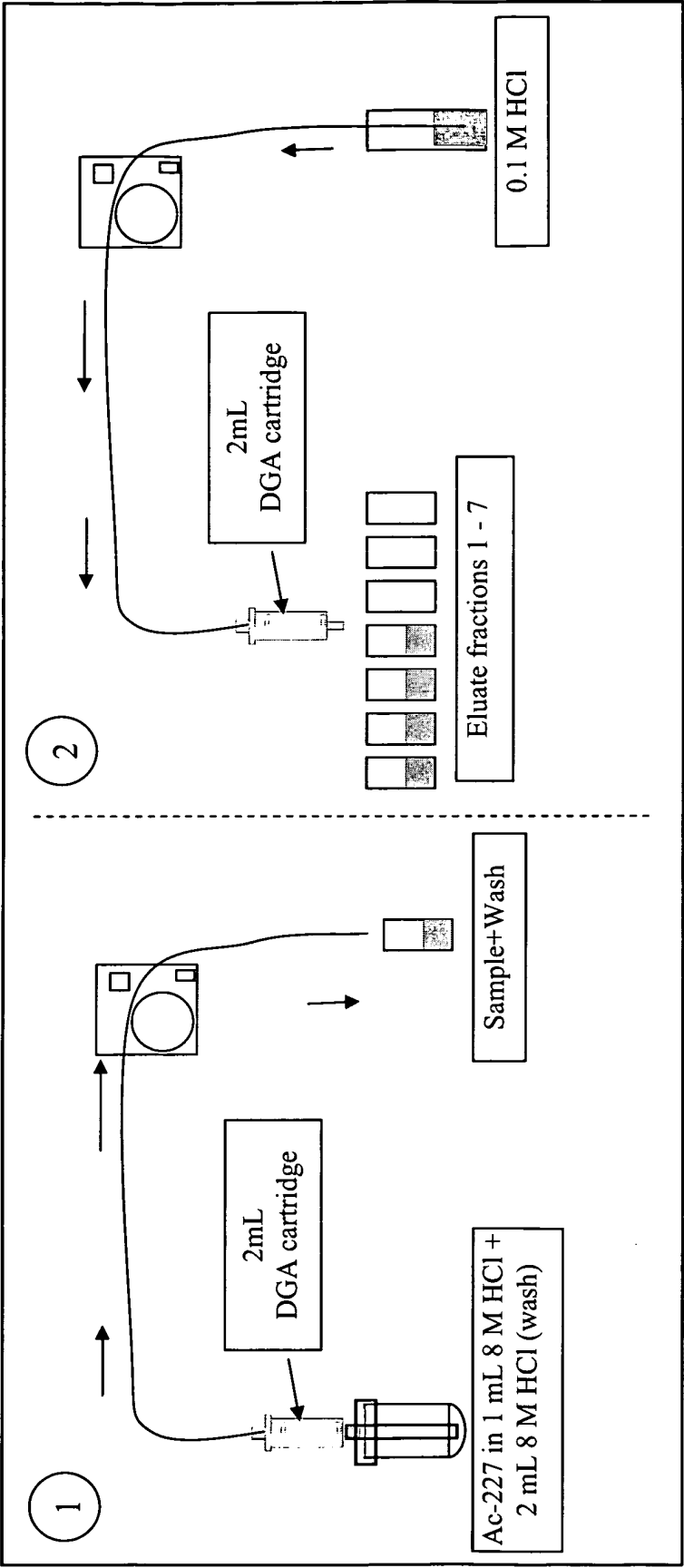


Figure 2 Experimental setup for DGA resin experiment 1



Figure 3 Normalised activity of ^{227}Ac , ^{227}Th and ^{223}Ra in various fractions in the DGA-branched resin after elution. Error bars show 3 s.d. counting uncertainty. Legend: SW: sample + wash fraction (8 M HCl), E1-E7: elution fraction 1-7 (0.1 M HCl), C: cartridge after elution.

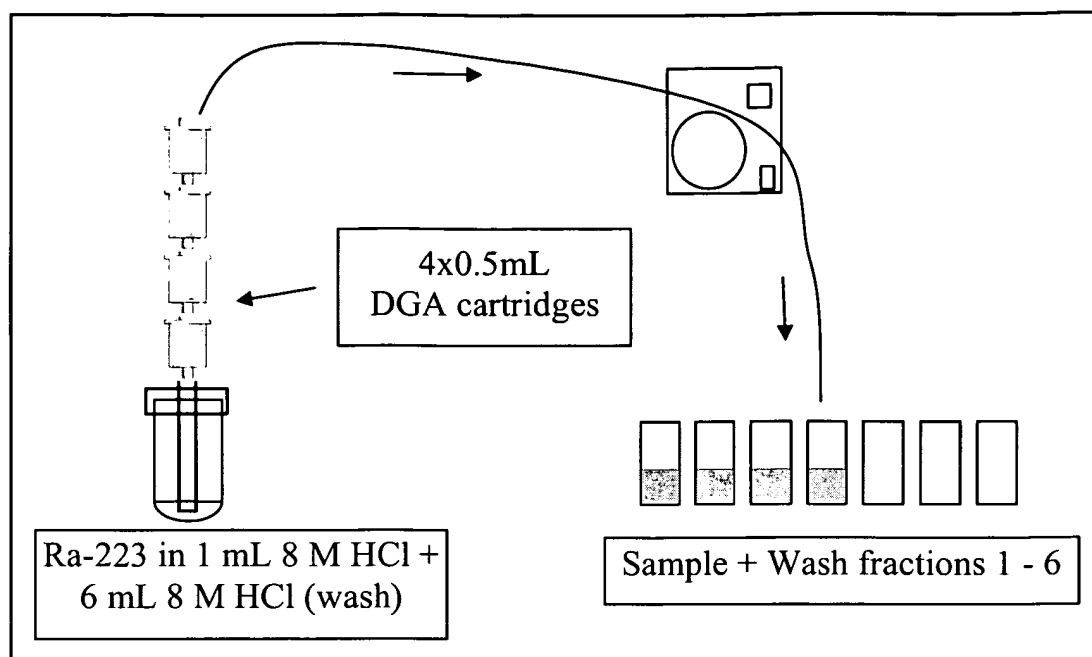


Figure 3 Experimental setup for DGA resin experiment 2

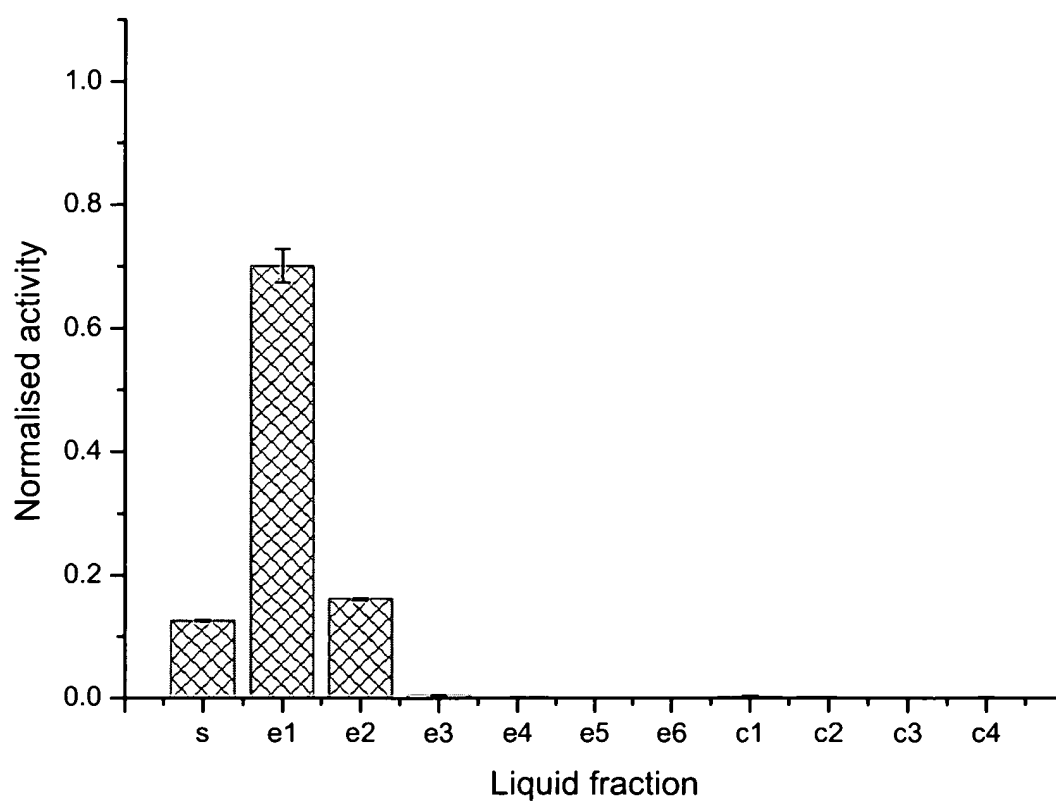


Figure 5 Normalised activity of ^{223}Ra in various fractions (7×1 ml) and in the DGA-branched resin after elution. Error bars show 3 s.d. counting uncertainty.

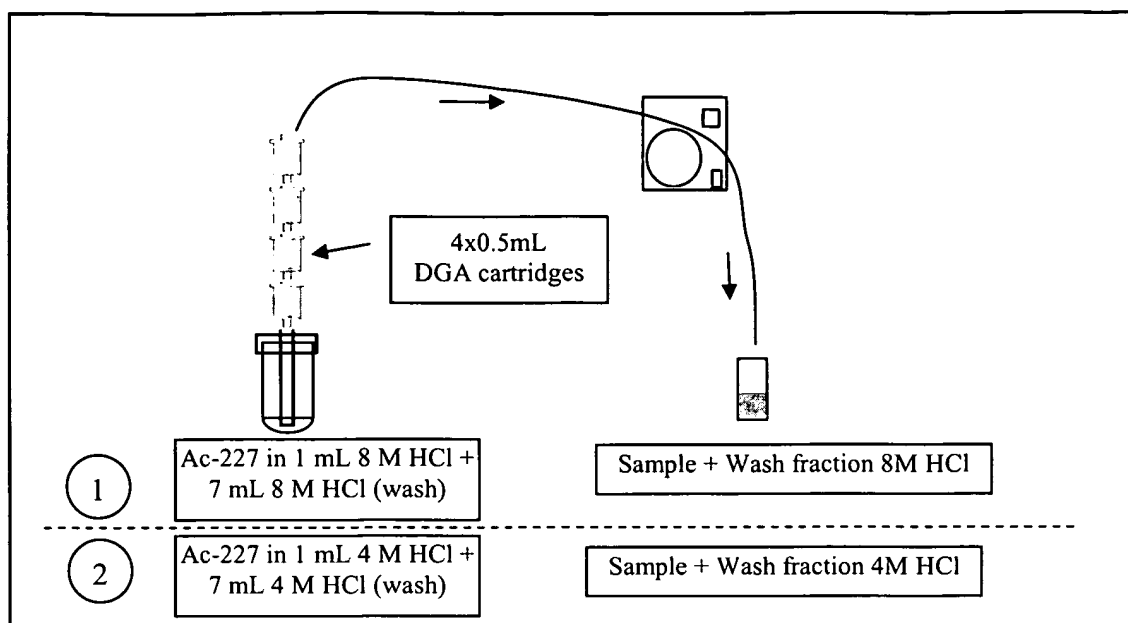


Figure 4 Experimental setup for DGA resin experiment 3

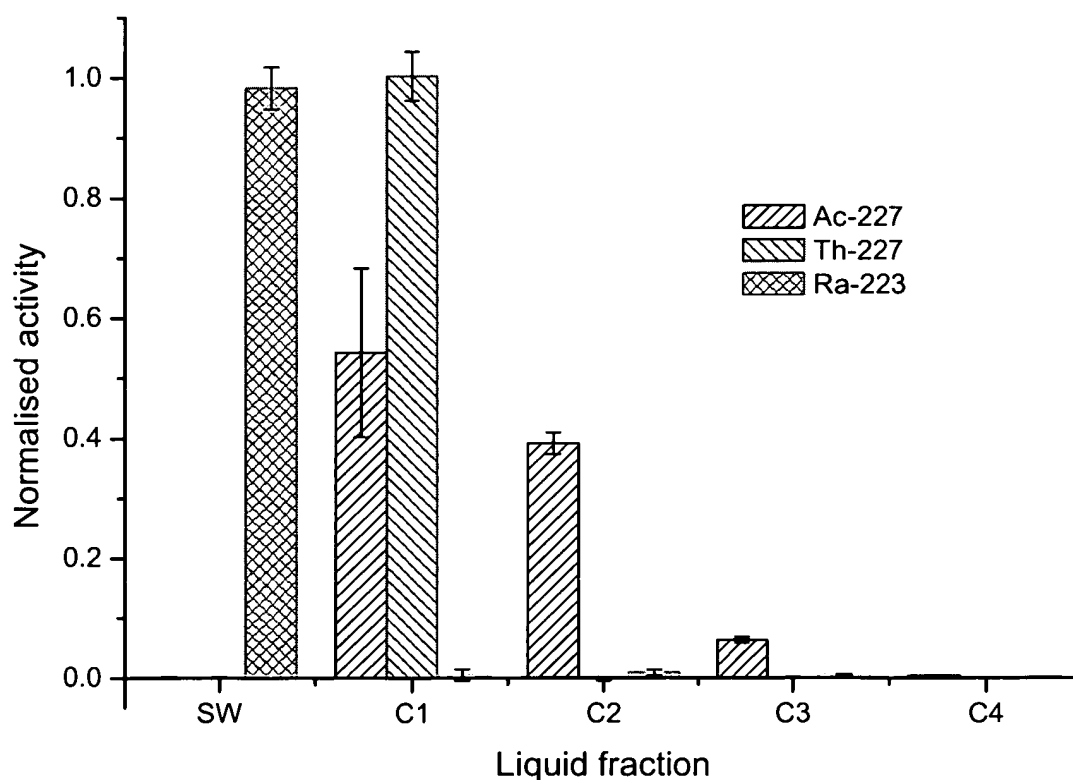


Figure 7 Normalised activity of ^{227}Ac , ^{227}Th and ^{223}Ra in various fractions in the DGA-branched resin after elution. Error bars show 3 s.d. counting uncertainty. Legend: SW: sample + wash fraction (8 M HCl), C1-C4: cartridges after elution.

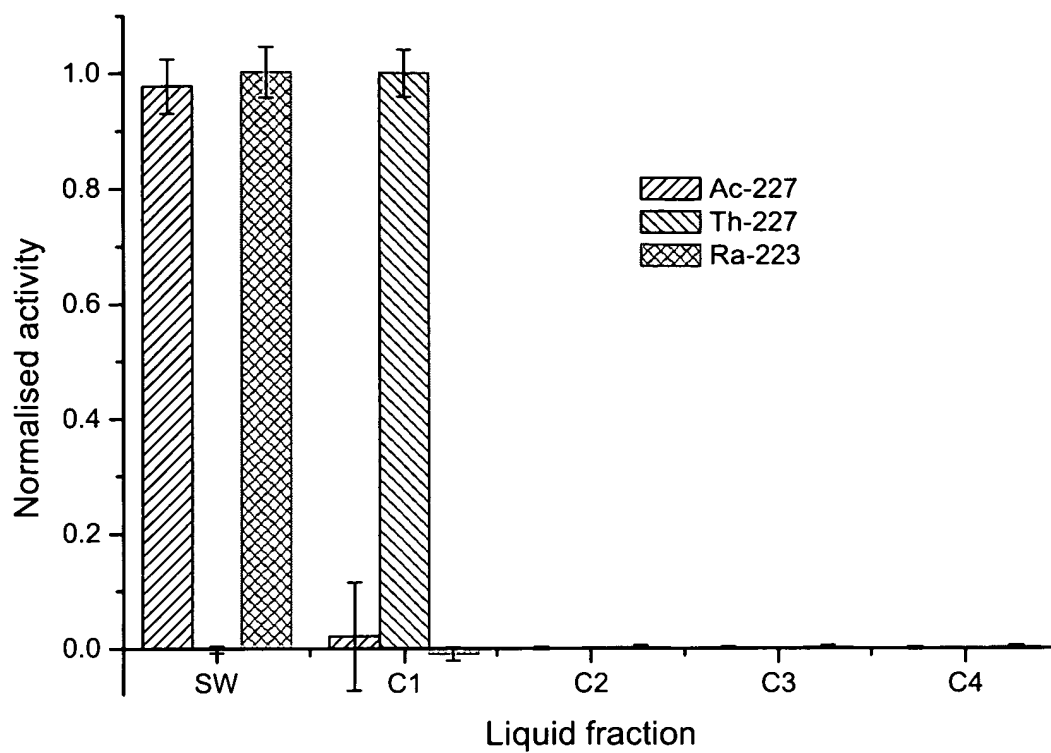


Figure 8 Normalised activity of ^{227}Ac , ^{227}Th and ^{223}Ra in various fractions in the DGA-branched resin after elution. Error bars show 3 s.d. counting uncertainty.

Legend: SW: sample + wash fraction (4 M HCl), C1-C4: cartridge after elution.