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(54) Title: ISOTOPE PREPARATION METHOD

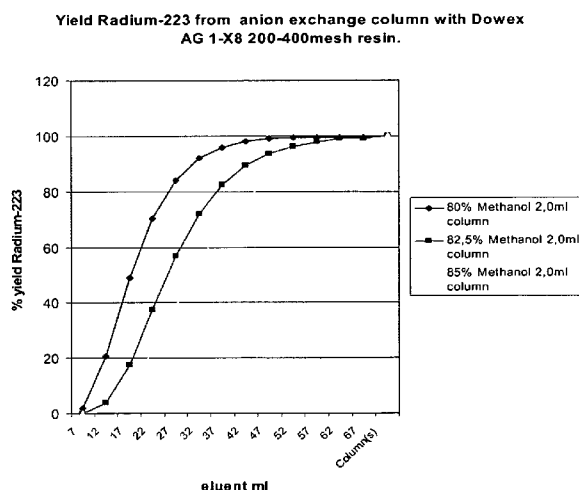


Figure 2 - elution profile of radium-223 from a 2ml anion-exchange column packed with AG 1-X8 200-400mesh particles

(57) **Abstract:** The present invention provides a method for the generation of ^{223}Ra of pharmaceutically tolerable purity comprising i) preparing a generator mixture comprising ^{227}Ac , ^{227}Th and ^{223}Ra ; ii) loading said generator mixture onto a strong base anion exchange resin; iii) eluting said ^{223}Ra from said strong base anion exchange resin using a first mineral acid in an alcoholic aqueous solution to give a first eluted ^{223}Ra solution; iv) loading the ^{223}Ra of the first eluted ^{223}Ra solution onto a strong acid cation exchange resin; and v) eluting the ^{223}Ra from said strong acid cation exchange resin using a second mineral acid in aqueous solution to provide a second eluted solution. The invention additionally provides products of corresponding purity and/or products obtained or obtainable by such a method.