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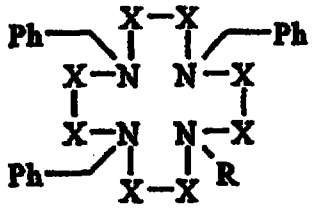
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(54) Title: POLYAZACYCLOALKANE COMPOUNDS



(I)

(57) Abstract

The present invention relates to tribenzylcyclen compounds of formula (I) (where R is hydrogen, or a C_{1-12} alkyl group optionally substituted by hydroxy, alkoxy or aryl groups or R is an amphiphilic aralkyl group comprising a N, S, O or P interrupted C_{2-25}alkylene chain, e.g. a polyalkylene oxide chain or R provides a bridge to a second tribenzylcyclen group, but with the proviso that R is other than benzyl; X is CHR_1, or where R is hydrogen two X groups may each represent CO groups; and R_1 is hydrogen, a C_{1-6}alkyl group optionally substituted by hydroxy, alkoxy or carboxy groups or an aralkyl group having 1 to 6 carbons in the alkyl moiety and optionally substituted in the aryl moiety by alkyl, alkoxy, hydroxy or isothiocyanate groups). These compounds are useful in the preparation of DO3A, N-substituted-1,4,7,10-tetraazacyclododecane-N',N'',N'''-triacetic acids, and the phosphonic acid analogs.