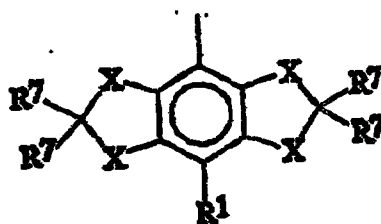




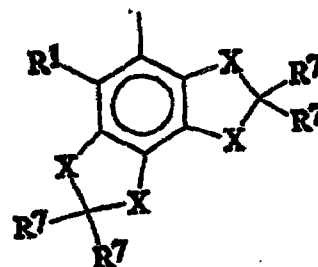
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(54) Title: HETEROCYCLIC METHYL FREE RADICALS AS IMAGE ENHANCING AGENTS



(1)



(2)

(57) Abstract

The invention provides novel persistent free radicals useful in Overhauser MRI being triarylmethyl radicals having as at least one aryl group a group of formula (1) or (2), wherein each X which may be the same or different is an oxygen or sulphur atom or a group CO or S(O)_n (where n is 1 to 3) with the proviso that at least one group X is a sulphur atom or an S(O)_n group; R¹ is a hydrogen atom or group of formula -M, -XM, -X-Ar² where M is a water solubilising group, and Ar² represents a 5-10 membered aromatic ring optionally substituted by a water solubilising group M; and each of the groups R⁷, which may be the same or different, is a hydrogen atom, or a hydrocarbon group or a water solubilising group M, or two groups R⁷ together with the atom to which they are bound represent a carbonyl group or a 5 to 8 membered cycloalkylidene, mono- or di-oxacycloalkylidene, mono or di-azacycloalkylidene or mono- or di-thiacycloalkylidene group optionally with the ring attachment carbon replaced by a silicon atom, and R⁷ where it is other than hydrogen, is optionally substituted by a hydroxyl group, an optionally alkoxylated, optionally hydroxylated acyloxy or alkyl group or a water solubilising group M. The novel radicals have good stability, long relaxation times and good relaxivity.