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(21) International Application Number: PCT/GB95/00833 (22) International Filing Date: 12 April 1995 (12.04.95) (30) Priority Data: 9407435.8 14 April 1994 (14.04.94) GB (71) Applicant (for all designated States except US): NYCOMED IMAGING A/S [NO/NO]; Nycoveien 1-2, N-0401 Oslo (NO). (71) Applicant (for GB only): COCKBAIN, Julian [GB/GB]; 27 Ladbroke Grove, London W11 3PD (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): VARADARAJAN, John [IN/US]; Nycomed R+D Inc., 446 Devon Park Drive, Wayne, PA 19087 (US). WATSON, Alan, David [AU/US]; Nycomed R+D Inc., 446 Devon Park Drive, Wayne, PA 19087 (US). BERG, Arne [NO/NO]; Nycomed Imaging a/s, Nycoveien 1-2, N-0401 Oslo (NO). (74) Agents: COCKBAIN, Julian et al.; Frank B. Dehn & Co., Imperial House, 15-19 Kingsway, London WC2B 6UZ (GB).		(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG). Published With international search report.	

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(54) Title: CHELANT COMPOUNDS

(57) Abstract

The invention provides amphiphilic compounds of the formula (I) $\text{Ch}-(\text{L-Ar}-(\text{AH})_n)_m$ (where Ch is a hydrophilic chelant moiety or a salt or a chelate thereof); each L is an optionally oxo substituted C_{2-25} -alkylene linker wherein at least one CH_2 moiety is replaced by a group X^1 (e.g. L may include a chain sequence, an $\text{X}^1(\text{CH}_2\text{CH}_2\text{X}^1)_u$ (where u is a positive integer) such as $\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1$, $\text{CH}_2\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1$, $\text{CH}_2\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1\text{CH}_2\text{CH}_2\text{X}^1$, etc.), and wherein L is optionally interrupted by a metabolizable group M but with the provisos that the terminus of L adjacent Ch is CH_2 and that the terminus of L adjacent Ar is X^1 or a CH_2 group adjacent or separated by one CH_2 from a group X^1 (thus, for example the L-Ar linkage may be $\text{L}^1\text{-X}^1\text{-Ar}$, $\text{L}^1\text{-CH}_2\text{-Ar}$, $\text{L}^1\text{-X}^1\text{CH}_2\text{-Ar}$ or $\text{L}^1\text{-X}^1\text{CH}_2\text{CH}_2\text{-Ar}$, where L^1 is the residue of L; each Ar is an aryl ring optionally substituted by or having fused thereto a further aryl ring; each AH is a protic acid group, preferably an oxyacid, e.g. a carbon, sulphur or phosphorus oxyacid or a salt thereof; each X^1 is O, S, NR^1 or PR^1 , preferably no more than 3 X^1 groups being present in L; each R^1 is hydrogen, alkyl or aryl; and m and n are positive integers, m being for example 1 to 4, especially 1 or 2 and n being for example 1, 2 or 3) which are especially suited for use in diagnostic imaging of the hepatobiliary system.