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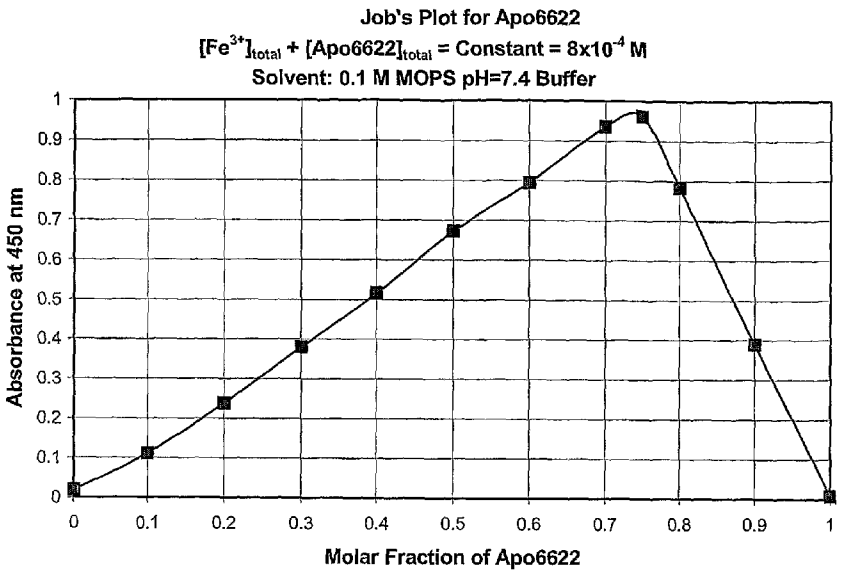
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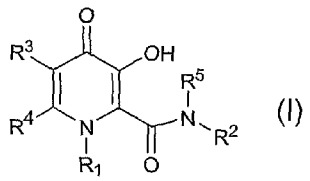
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(54) Title: CYCLOALKYL DERIVATIVES OF 3-HYDROXY-4-PYRIDINONES





(I)

(57) Abstract: The present invention provides an cycloalkyl derivative of 3-hydroxy-4-pyridinone which is useful for the chelation of metal ions such as iron. Its preparation and use is described. In particular, the invention concerns the removal of iron in chemical and biological systems including chelating agents having the formula (I); wherein R^1 is X with the proviso that R^2 is Y; or R^1 is T with the proviso that R^2 is W; or R^1 is X with the proviso that R ^{2} R^5 N when taken together form a heterocyclic ring selected from piperidinyl, morpholinyl, pyrrolidinyl or piperazinyl, wherein the group piperidinyl, morpholinyl, pyrrolidinyl or piperazinyl is either unsubstituted or substituted with one to three C_1 to C_6 alkyl groups. X is C_3-C_6 cycloalkyl; Y is selected from the group consisting of C_1 to C_6 cycloalkyl; C_1 to C_6 alkyl, and C_1 to C_6 alkyl monosubstituted with a C_3-C_6 cycloalkyl; T is C_1 to C_6 alkyl; W is C_3-C_6 cycloalkyl; R^3 is selected from the group consisting of hydrogen and C_1 to C_6 alkyl; R^4 is selected from the group consisting of hydrogen and C_1 to C_6 alkyl; R^5 is selected from the group consisting of hydrogen and C_1 to C_6 alkyl; and its pharmaceutically acceptable salt thereof. Pharmaceutical compositions of such compounds are useful in the removal of excess body iron from patients with iron overload diseases.

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