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Mild template synthesis of copper(II)-containing macrocyclic compounds in the CuII-1,2-diaminoethanedithione-1,2-ethanedione-1,2 and CuII-1,2-diaminoethanedithione-1,2-butanedione-2,3 triple systems into Cu₂[Fe(CN)₆]-gelatin-immobilized matrix implantates

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Abstract

The complexing processes in the CuII-1,2-diaminoethanedithione-1,2-ethanedione-1,2 and CuII-1,2-diaminoethanedithione-1,2-butanedione-2,3 triple systems occurring in the copper(II)hexacyanoferrate(II) gelatin-immobilized matrix in contact with aqueous alkaline solutions (pH~12) containing 1,2-diaminoethanedithione-1,2 and ethanedione-1,2 or butanedione-1,2 under room temperature, and between MCl₂, 1,2-diaminoethanedithione-1,2 and ethanedione-1,2 or butanedione-1,2 in the ethanol solutions, upon heating up to ~80 °C, have been studied. In both systems indicated, template synthesis occurs in the gelatin-immobilized matrix but does not occur in the ethanol solution. As a result of template synthesis, macrocyclic CuII chelates with 2,7-dithio-3,6-diazaoctadien-3,5-dithioamide-1,8 and its 4,5-dimethylsubstituted derivative are formed in the gelatin-immobilized matrix. 1,2-diaminoethanedithione-1,2 and ethanedione-1,2 or butanedione-2,3 are the ligand synthons in the processes indicated. © 2007 Springer.

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