Synthesis, characterization and antifungal activity of a series of manganese(II) and copper(II) complexes with ligands derived from reduced N,N′-O-phenylenebis(salicylideneimine)

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Résumé en anglais
A series of manganese(II) and copper(II) complexes with reduced Schiff bases derived from o-phenylenediamine has been prepared and characterized by elemental analysis, TG measurements, ESR, magnetic measurements, FTIR, UV-Visible spectra and conductivity. These complexes were found to be [MnL(H₂O)ₙ] and [CuL](H₂O)ₙ species with n = 0–2. Their antifungal activity was evaluated on different human fungi including yeasts of the Candida genus (C. albicans, C. glabrata, C. tropicalis and C. parapsilosis) some opportunistic moulds belonging to the Aspergillus (A. fumigatus, A. terreus and A. flavus), Scedosporium genus (S. apiospermum and S. prolificans) and some dermatophytes (M. gypseum, M. persicolor, T. mentagrophytes, M. canis and T. tonsurans). The manganese complexes showed a significant growth inhibition of the dermatophytes tested and fungi of the genus Scedosporium. This is very interesting as these fungi are usually poorly susceptible to current antifungal including Amphotericin B and Itraconazole chosen as reference in this study.

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