

Structure-activity relationship disturbed by a solvolytic process: study on the [Cu(II)-4-nitropyridine *N*-oxide derivative] system.

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Kolekcja

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Streszczenie

The chelate complex [CuCl₂(L)] where L = 2-methylamino-3-methyl-4-nitropyridine-*N*-oxide has been obtained and characterized, both physicochemically (by the X-ray structure analysis of the complex and the ligand, FTIR, EPR and electronic spectroscopy, and thermal analysis) and cytotoxically (MCF-7, A549, SW707, P388, Balb3T3). In solution, atypically for chelate complexes, it undergoes rapid solvolysis forming various 6- (or 5) and 4-coordinate species, depending upon the solvent. Such rapid decomposition may indicate a catalytic effect of the copper operating in the system. However, the cytotoxic activity in solution for the new copper chelate complex appeared to be a surprisingly low. Thus, before drawing any conclusions on the structure-activity relationship, one must carefully check the chemical identity of the compound(s) in both phases.

Słowa kluczowe

Copper(II) complexes, 4-Nitropyridine-*N*-oxide derivative,
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