

ESR studies of low-spin [N¹,N⁴-bis(salicylidene)-S-alkyl-isothiosemicarbazonato]cobalt(II) complexes doped into the lattices of corresponding zinc(II) chelates.

Autorzy

Krzysztof Drabent

Juliusz A. Wolny

Mikołaj F. Rudolf

Piotr J. Chmielewski

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Streszczenie

Direct template reaction of salicylaldehyde S-alkyl-isothiosemicarbazone with salicylaldehyde and its derivatives, in the presence of cobalt(II) [or zinc(II)] acetate, triethylamine and triethyl orthoformate yields the aqua-adducts of the corresponding N¹,N⁴-bis(salicylidene)-S-alkyl-isothiosemicarbazone complexes. ESR measurements of cobalt doped zinc complexes were performed. The spectra are typical for the $z^2 > 1$ ground state. The energies of the two excited doublet states were estimated on the basis of spin Hamiltonian parameters. A six-coordinate structure with coordination of the phenolic oxygen of an adjacent molecule has been proposed for the CoL·H₂O complexes. The formation of low-spin pyridine adducts of the title complexes in the solid was shown.

Adres publiczny

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