Alternative Method for the Preparation of Ni(dddt)(edt) (dddt = 5,6-Dihydro-1,4-dithiin-2,3-dithiolate, edt = cis-1,2-Ethylenedithiolate) and Similar Complexes

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Starting from 4,5-(ethylenedithio)-1,3-dithiol-2-one and 1,3-dithiol-2-one the disodium 5,6-dihydro-1,4-dithiin-2,3-dithiolate (Na₂dddt) and disodium 1,2-dithiolate (Na₂edt) salts were prepared, which react with NiCl₂ in air to give the complex Ni(dddt)(edt) (3ab). This compound was characterized analytically and spectroscopically. The method is applicable for the preparation of similar unsymmetrical complexes.

Key words: Metal 1,2-Dithiolenes, π-Donor Molecules, Organic Conductors