METAL COMPLEXES

Complexation of N-(1,3-di-*tert*-butyltetrazolium-5-yl)benzimidate with copper(II) chloride

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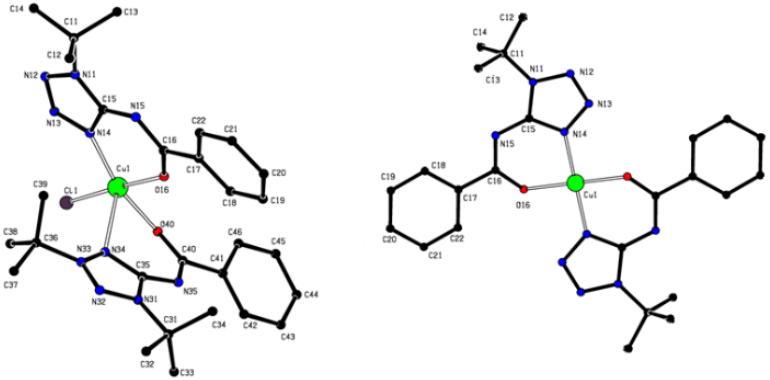
Coordination compounds, based on mesoionic tetrazole-containing ligands, attract today a great attention because of their unique properties such as high energy density, catalytical and magnetic properties [1–3]. However, the complexation of such ligands has not been enough studied.

In the present work, the interaction of N-(1,3-di-*tert*-butyltetrazolium-5-yl)benzimidate (L^1) with anhydrous copper(II) chloride was investigated. It was found that complexation proceeded with de-*tert*-butilation of ligand L^1 to form N-(1-(*tert*-butyl)tetrazol-5-yl)benzamide (L^2). It was shown that ligand-mixed complex $[CuClL^1L^2]$ (**1**) was formed at room temperature, while complex $[Cu(L^2)_2]$ (**2**) was obtained upon heating. Synthesized compounds were identified by single crystal X-ray analysis and IR-spectroscopy. Both compounds present mononuclear molecular complexes (Fig.).



1 **2**

Fig. The structures of complexes **1** and **2**. Hydrogen atoms are omitted for clarity.

References

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