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Metal-polymer complexes of cobalt(II) and Copper(II) with hyperbranched polyester polycarboxylic acids

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Abstract

Hyperbranched polyester polycarboxylic acids of the second and third generations for use as high-efficiency complexing agents are synthesized. On the basis of these compounds, new metal-polymer complexes of cobalt(II) and copper(II) are prepared for the first time. As evidenced by IR and ERR studies, the central atom in these metal polycarboxylates occurs in the axially symmetric system MO6. The thermal stability of polymer copper complexes is improved with increases in the content of metal ions, the degree of functionalization, and the generation number of the polyacid platform. © 2013 Pleiades Publishing, Ltd.

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