

## Formation of a polynuclear cobalt(II) complex on a polydentate nanoplatform of carboxylated boltorn H20

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### Abstract

A method of synthesis of a polynuclear cobalt(II) complex with carboxylated Boltorn H20, a hyperbranched polyol of second generation, has been suggested. The logarithm of stability constant and the composition of the complex species  $BH_{20}(OC(O)CH_2CH_2COO)_{12}Co_{12}$  in a 50% acetone solution have been calculated from the electronic absorption spectra:  $\log \beta = 13.7 \pm 0.2$  and the composition  $M : L = 12 : 1$ . The IR spectroscopy and NMR ( $^{13}C$  and  $^1H$ ) point to the coordination of Co(II) ions not only at the surface of the molecule but also near its core. © Pleiades Publishing, Ltd., 2012.

<http://dx.doi.org/10.1134/S0036023612090136>

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