

Polymer Science - Series A 2006 vol.48 N6, pages 612-617

---

## Mössbauer study of structurally ordered iron coordination compounds and polyurethanes crosslinked by them

Davletbaeva I., Pyataev A., Kalachev K., Sadykov E., Manapov R.  
*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### Abstract

The structure of a metal-complex system based on ferric chloride and monoethanolamine and the products of interaction of this system with  $\epsilon$ -caprolactam and a urethane prepolymer was studied by Mössbauer spectroscopy. It was found that iron ions in the coordination compounds of interest are linked with one another in a chain structure via chloride bridges. The columnar structure of metal complexes, the presence of magnetic ordering in these complexes below 70 K, and the feasibility of formation of metal complexes ordered in the same manner in a flexible-chain polymer matrix containing electron-donating groups were revealed. © Pleiades Publishing, Inc., 2006.

<http://dx.doi.org/10.1134/S0965545X06060095>

---