

Catalytic properties of cobalt- and iron-containing hydrotalcite-like layered hydroxides in Knoevenagel condensation

© **Irina G. Ryltseva,⁺ Olga A. Vorontsova, and Olga E. Lebedeva***

*Department of General Chemistry, Belgorod State National Research University, Pobeda St., 85,
Belgorod, 308015, Russia. E-mail: Irina_rylcova@mail.ru*

*Supervising author; ⁺Corresponding author

Keywords: *layered hydroxides, cobalt, iron, Knoevenagel condensation, catalytic activity.*

Abstract

Catalytic activity of iron- and cobalt-containing hydrotalcite-like layered hydroxides in test reaction of condensation of benzaldehyde with malonodinitrile (Knoevenagel condensation) was investigated. The activity of layered hydroxides containing cations of transition metals was shown to be lower than the activity of the original hydrotalcite. Catalytic activity of layered hydroxides also depends on M^{2+}/M^{3+} ratio.