



LAYERED DOUBLE HYDROXIDES AS POTENTIAL SOLID FOR OBTAINING MORE ENVIRONMENTALLY FRIENDLY PESTICIDES

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Abstract

The paper describes the synthesis and characterization of layered double hydroxides (LDH) intercalated with 4,6-dinitro-o-cresol (DNOC) and 2,6-dichlorobenzonitrile (2,6DBN) by anionic exchange method. The incorporation of the organic pesticides in the structure of layered double hydroxides can offer premises to increase the pesticide active life by reducing its volatilization, controlling the release of the pesticide from the layered structure and decreasing the pesticide adsorption in soil and groundwaters. Considering together the pesticide activity and the biocompatibility of the layered double hydroxides, the new synthesized materials could open interesting perspectives for obtaining more environmentally friendly pesticides.

Keywords: layered double hydroxides, 4,6-dinitro-o-cresol, 2,6-dichlorobenzonitrile, hybrid materials, friendly pesticides

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