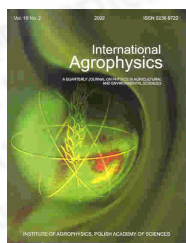




International Agrophysics
Polish Journal of Soil Science
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International Agrophysics
publisher: Institute of Agrophysics
Polish Academy of Sciences
Lublin, Poland
ISSN: 0236-8722

vol. 22, nr. 3 (2008)

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Studies on platinum (IV) ions sorption in loess and loamy soils

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vol. 19 (2005), nr. 4, pp. 285-291

abstract The aim of the experiment was to study the sorption of platinum ions in loess and loamy soils in the presence of Pb(II) and Cd(II) ions, in relation to temperature, incubation time and concentration of added Pt(IV) ions. Soil samples were treated with solutions of platinum ions in the form of PtCl₄ containing 20, 40, and 200 mg Pt(IV) dm⁻³ and with 100 mg Pb(II) dm⁻³ as Pb(NO₃)₂ and 50 mg Cd(II) dm⁻³ as CdCl₂, and incubated at two temperature levels: 5 and 20°C over periods of 1, 2, 3, 4, 5, and 6 months. The Pt(IV) ions content was determined in the filtrates by means of the voltamperometric method, with additional concentration. On the basis of the obtained results, it was found that the sorption of platinum (IV) ions in soils depends on all the factors used in the experiment.

keywords platinum ions, sorption, loess soil, loamy soil

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