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RECYCLING

AIR POLLUTION AND CLIMATE CHANGE

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EIS data confirm the voltammetric studies and the kinetic parameters obtained for nickel electrodeposition from Watts bath with midazolam as levelling agent.

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RECYCLING OF WASTES OF CHEMICAL INDUSTRY INTO AMELIORATORS

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ABSTRACT

In last decades the increasing of wastes of chemical industry results to necessity of significant changing of concepts and principles of known methods of recycling of chemical raw materials into final products, as well as development of perspective methods of utilization of liquid and solid wastes.

For studying of synthesis of calcium-containing ameliorators well-known ion-exchanging technology was applied. Phosphogypsum was investigated as sorbents. Phosphorus-containing wastewaters were investigated as eluents.

The results of investigation of synthesis of calcium-containing ameliorators from the wastes of phosphate industry are presented in this report. In optimal conditions the ameliorator, containing 32.5% of phosphorus pentoxide, can be obtained.

The main idea of technical realization of supporting method is that on the basis of two or several solid industrial wastes (phosphogypsum) and liquid wastes of recycling of natural raw materials to obtain a new useful product such as ameliorators enriched by microelements (potassium, magnesium, boron, manganese, silicon etc.). Additionally the content of obtained ameliorators can be also varies by using different microadditives or by changing of content of initial sorbent.

Keywords: recycling, chemical industry, ameliorators, phosphorus pentoxide

INTRODUCTION

Last decades of development of chemical industry resulted to increasing of wastes, containing harmful technogenic products. The storage of wastes required large territories, financing for transportation and storage and resulted to ecological problems of these territories and can be dangerous for local population. The possible ways of recycling of wastes can help to solve all above mentioned problems.