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THE USE OF STEELWORKS RESIDUE TO REMOVE CADMIUM IONS FROM AQUEOUS SOLUTIONS

N. Ortiz, D.A. Fungaro, M.A.F. Pires, J.C. Bressiani

*Nuclear Energy Research Institute – IPEN, Centro de Química e Meio Ambiente – CQMA
Travessa R, 400 Butantã – USP, CEP 05508-090 Brazil
nortiz@net.ipen.br*

Various references on the use of ferric compounds as non-conventional adsorption materials can be found in the literature. According to them, such materials as hematite, amorphous iron and waste Fe (III)/Cr(III) hydroxide were successfully used in liquid waste treatment for heavy metal removal [1,2,3]. Thus, the use of abundant ferric converter slag may prove to be efficient for low-cost treatment of industrial wastewater [4]. The main goal of the present work is the study of converter slag application as adsorber material for heavy metals removal from liquid industrial waste. The present research was aimed at soluble cadmium (Cd^{2+}) removal. Cadmium was chosen because it has high toxicity and it is considered as one of the most common pollutants present in liquid waste [5]. The results obtained for converter slag adsorption under optimized conditions was the removal of 87.22 % of soluble cadmium from aqueous solution. Additionally, it was shown that the investigated adsorption system is in good agreement with the models proposed by Langmuir and Freundlich.

References

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