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## REMOVAL OF PHOSPHORUS FROM WASTE OF A BEVERAGE INDUSTRY BY STRUVITE PRECIPITATION

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### **Abstract**

Waste from a cola beverage industry containing high concentration of phosphorus (P) was treated by the struvite precipitation method. The influence of excess of ammonia and order of reagent addition were evaluated as independent variables on the removal and recovery of phosphorus from cola beverage waste. It was removed about 95% of P of the sample in a short reaction time. The precipitated crystals were identified and analyzed by X-ray Diffraction (XRD), infra-red spectroscopy (IR) and surface area (BET), revealing that there was the formation of a pure and mesoporous crystalline phase.

*Key words:* beverage, drink, phosphorus, struvite, waste management

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