

الاسم:- د.سامى محمد عبد العظيم

القسم :- الكيمياء

التخصص:- كيمياء تحليلية

الدرجة العلمية:- مدرس

1-Removal of Pb and Cd from aqueous media and fish liver using novel polyurethane foam functionalized with pyrazolone as a new metal ion collector,

N. Burham^{a*}, **S.M. Abdel-Azeem**^a, M.F. El-Shahat^b

a Chemistry Department, Faculty of Science, Fayoum University, Fayoum City, Egypt

b Chemistry Department, Faculty of Science, Ain-Shams University, Cairo, Egypt

[Central European Journal of Chemistry, 7 \(2009\) 576.](#)

Abstract

In the present paper, an off-line preconcentration procedure for the determination of cadmium and lead by flame atomic absorption spectrometry (FAAS) is proposed. Polyurethane foam (PUF) functionalized with o-aminophenol (o-AP) followed by Pyrazolone (Pyr) packed in a minicolumn was used as a sorbent material. The metals were retained on the modified PUF, from which it could be eluted and effectively preconcentrated. The detection limits were 0.072 and 0.016 $\mu\text{g L}^{-1}$ for Pb and Cd respectively. Enrichment factors were 250 and 319 for lead and cadmium respectively. The procedure has been applied successfully to metal determination in water samples, fish liver and reference material.
