

الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي

Université Abou Bekr Belkaid
Tlemcen Algérie



جامعة أبي بكر بلقايد

تلمسان الجزائر

nn Biol Clin (Paris). 2012 Oct 1;70(5):595-8. doi: 10.1684/abc.2012.0738.

[Dosage of cadmium and lead in human blood by anodic stripping voltammetry].

[Attar T](#), [Harek Y](#), [Dennouni-Medjati N](#), [Lahcen L](#).

Source

Laboratoire d'électrochimie et chimie analytique, Département de chimie, Faculté des sciences, Université Abou Bekr Belkaid, Tlemcen, Algérie. att.tarik@gmail.com

Abstract

The objective is the determination of the conditions operating optimal to determine the concentration of the cadmium and the lead dissolved in the human blood. An electroanalytical method has been developed for the determination of lead and cadmium in whole blood by differential pulse anodic stripping voltammetry (DPASV) on a hanging mercury drop electrode (HMDE). The best conditions were found to be electrolyte support perchloric acid 0.02 M, the accumulation potential is -900 mV, and the accumulation time is 320 s. The obtained limits of detection are equal to 0.46 and 0.08 ng/mL respectively for the lead and the cadmium. The developed method was validated by the analysis of reference materials certified by total blood.

PMID:

23047906

[PubMed - indexed for MEDLINE]