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عنوان مقاله:

Application of anodic stripping voltammetry to sorption performance assess of soluble eggshell membrane protein/MWCNT nonocomposite forheavy metal removal

محل انتشار:

یازدهمین سمینار سالانه الکتروشیمی ایران (سال: 1394)

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خلاصه مقاله:

Exposure to heavy metals, even at trace level, is believed to be a risk for human beings Nowadays, numerous methods have been proposed for efficient removal of heavy metal from waters. Adsorption is one of the most important techniques for heavy metal removal from water samples (1).In this study, multi-walled carbon nanotube was doped in soluble eggshell membrane protein(SEP/MWCNT) matrix to removal arsenic ions from aqueous solution (2). To assess theabsorption mechanism and gain parameters involved in the absorption process, anodic stripping voltammetry (ASV) technique was used. ASV method consisted of two steps, including preconcentration of the analyte at the electrode surface by reduction, and stripping thepreconcentrated analyte at the electrode surface by oxidation. Maximum Arsenic sorption was observed to be in acidic media (pH 1.7). According to the experimental .results, Freundlichisotherm is considered for the absorption of Arsenic on the SEP/MWCNT nonocomposite

کلمات کلیدی:

Anodic Stripping Voltammetry, MWCNT, Heavy Metal

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