CZ.1.07/2.3.00/20.0148 NANOLABSYS
Mezinárodní spolupráce v oblasti „*in vivo*“ zobrazovacích technik
Laboratoř Metalomiky a Nanotechnologií

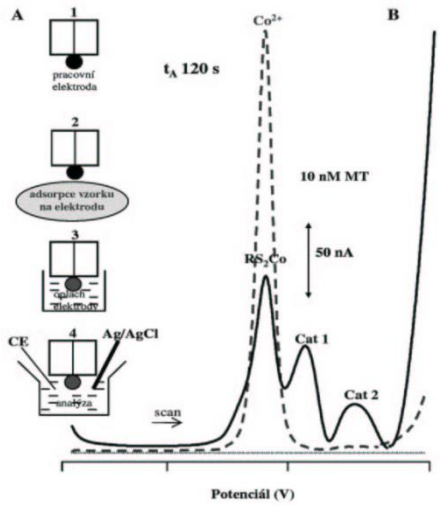
Vás zve na seminář:

Interaction of metallothionein with CdTe quantum dots studied by electrochemistry

Ing. Kateřina Tmejová, Ph.D., Ing. Soňa Křížková, Ph.D., Mgr. Markéta Vaculovičová, Ph.D.

Abstrakt

This study is focused on investigation of interaction of metallothionein with CdTe quantum dots. Application of electrochemical technique for such interaction monitoring was tested. Concretely using of differential pulse voltammetry Brdicka reaction was applied. Two new voltammetric peaks X and Y were detected with the prolonged time of interaction up to 6 hours. The interaction of QDs with MT was also monitored electrochemically in the Brdicka electrolyte. The mixture of 500 µM QDs and 0.6 µM MT was left to interact for the interaction time from 0 s to 6 h with MT. Five peaks were detected (X, Y, RS2Co, Cat1, Cat2) in the obtained voltammograms. However, we were interested in peak X (potential -0.90±0.05 V) and peak Y (potential -1.00±0.05 V) that appeared during the interaction. Complexes formed during interaction of QDs with MT were studied in our work by Brdicka catalytic reaction, which providing new peaks X and Y associated with MT-QD complexes. These new peaks could bring new information about interaction of QDs with metalloproteins because application of QDs in organism will be connected with question of various QDs interactions.



pátek 24. 10. 2014, od 16:00

evropský sociální fond v ČR
EVROPSKÁ UNIE
MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY
OP Vzdělávání pro konkurenceschopnost
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

CZ.1.07/2.3.00/20.0148 NANOLABSYS
Mezinárodní spolupráce v oblasti „*in vivo*“ zobrazovacích technik

Laboratoř Metalomiky a Nanotechnologií

Ústav chemie a biochemie, Laboratoř metalomiky a nanotechnologií, Zemědělská 1, 613 00 Brno, Kontakt: kizek@sci.muni.cz

evropský sociální fond v ČR
EVROPSKÁ UNIE
MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY
OP Vzdělávání pro konkurenceschopnost
INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ