

## عنوان مقاله:

Sensitive determination of imatinib in human biological samples by differential pulse voltammetry based on carbon paste electrode modified by MMWCNTs/PAN NFs

## محل انتشار:

بیستمین کنگره شیمی ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

In the present work, the electrochemical oxidation of new generation of anti-cancer drug, imatinib, using by differential pulse voltammetry based on carbon paste electrode modified by MMWCNTs/PAN NFs (MMWCNTs/PAN NFs/CPE) has been reported. The results of a study showed that imatinib provided well-shaped oxidation peak at positive potential of +0.8 V (vs .EAg/AgCl) in the phosphate buffer solution at pH 6.0. The experimental conditions, i.e. pH, modulation amplitude, a modulation time, a step potential, and a scan rate, were optimized, A simple, rapid, selective and sensitive DPV procedure for the determination of imatinib was performed in the concentration range of  $1.69 \times 10^{-9}$  -  $4.24 \times 10^{-7}$  mol/L with the limit of detection (LOD) and the limit of quantification (LOQ) of  $3.2 \times 10^{-10}$  and  $1.8 \times 10^{-9}$ , respectively. The proposed method with using anodic signal of imatinib at MWCNT/CPE shown comparable detection limit as for boron-doped diamond electrode and hanging mercury drop electrode in the determination of this [anticancer drug [1, 2

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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