

Title: Determination of vanillin using carbon paste electrode.

Abstract: The aim of this work is the determination of vanillin by flow injection analysis (FIA) with electrochemical detection using carbon paste electrode (CPE) and spectrophotometric detection.

Optimal conditions for determination of vanillin by the FIA were found. Under optimal conditions calibration dependences were measured in the concentration range from $1 \cdot 10^{-4} \text{ mol} \cdot \text{l}^{-1}$ to $2 \cdot 10^{-7} \text{ mol} \cdot \text{l}^{-1}$. The calibration dependences were evaluated using linear regression method. Comparable results were achieved for the determination of vanillin by FIA with electrochemical detection using CPE and for the determination of vanillin by FIA with spectrophotometric detection. Limits of detection were identical $1.7 \cdot 10^{-7} \text{ mol} \cdot \text{l}^{-1}$.

Key words: vanillin, carbon paste electrode, flow injection analysis, electrochemical detection, spectrophotometric detection