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*VABILO NA PREDAVANJE  
V OKVIRU DOKTORSKEGA ŠTUDIJA  
KEMIJSKE ZNANOSTI*

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z naslovom:

**Recent applications of screen-printed  
carbon electrodes in electrochemical  
(bio)sensors**

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*Vljudno vabljeni!*

## Abstract:

Since their introduction into scientific research by commercial device for glucose sensing thirty years ago [1], screen-printed carbon electrodes clearly manifested their advantages and prominent place within the group of carbon-based electrode materials. They can be easily prepared on various polymeric or ceramic substrates from large, single electrodes up to miniaturized, multi-electrode arrangements. Because of their heterogeneous nature, numerous ways of modification can be utilized to tailor the resulting electrochemical properties of screen-printed carbon electrodes.

Up to nowadays, a great variety of electrochemical (bio)sensors based on screen-printed carbon electrodes were developed for the determination of countless number of inorganic [2-4], organic [4-6] and biologically active compounds [6-8]. Several milestones in the use of screen-printed carbon electrodes will be highlighted and the wide range of electroanalytical applications for important analytes will be reviewed [9]. Recent trends in the use of screen-printed carbon electrodes, such as electroanalysis with the aid of quantum dots, electrochemical immunoassays or wearable (bio)sensors, will be also demonstrated.

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## Keywords:

Heterogeneous carbon electrodes; screen-printed carbon electrodes; quantum dots; electrochemical immunosensors; wearable biosensors