Screen-printed Electrochemical Sensor Based on Reduced Graphene doped Poly (L-dopa)/PEDOT:PSS Composites for Epinephrine Detection

Yile Hu, Hui Yang*, Wei Li, Keke Du, Simin Song, Wenhui Zhang, Zhiqiang Wei, Sanqiang Li*

College of Basic Medical, Henan University of Science and Technology, Luoyang, 471023, Henan, China.

*E-mail: yanghui7761@163.com, sanqiangli2001@163.com

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In current work, the highly sensitive screen-printed electrochemical sensor for epinephrine (EP) detection was constructed based on reduced graphene doped poly (L-dopa)/PEDOT:PSS composites by the simple solution coating method and electropolymerization. The constructed sensor exhibited excellent sensor performances and recorded the linear response of EP in the concentration range of 0.10–16.50 μM with detection limit of 0.02 μM . The practical analytical utility provides great promise for sensitive measurements of EP in human serum, and has broad prospects in clinical and pharmaceutical applications.

Keywords: Reduced Graphene, Screen-printed Electrochemical Sensor, Poly (L-dopa), PEDOT:PSS, Epinephrine

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