



The synthesis of layers of the aliphatic polydopamine

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Streszczenie

The essence of the present invention is the deposition procedure of a layer of the aliphatic polydopamine (PDA) is carried out by a electrochemical and chemical method. The deposition procedure of a layer of the aliphatic polydopamine (PDA) on the conductive surface is carried out by the potentiodynamic electropolymerization from a dopamine solution as a functional monomer in the form of a dopamine-containing solution with a concentration of 10^{-10} M - 1 M in the supporting electrolyte 0.5 M - 0.001 M KCl / NaCl / LiCl, with a potential linearly changed in the range from - 0.8 V to + 0.65 V, preferably in the range from - 0.5 V to + 0.5 V. The conducting surfaces consist: glassy carbon (GC) disc electrodes (GCE), Pt electrodes (disc or plate), Au electrodes (disc or plate), stainless steel plates, carbon steel plates, graphite electrode (GE) (disc or tape), Ag electrodes (disc or plate), carbon tape. The dopamine electropolymerization toward PDA is also carried out alternatively by a potentiostatic method, i.e. at a constant potential from the range of + 0.12 V to + 0.65 V. The process of deposition of the aliphatic polydopamine layer is also carried out by a chemical method, from a solution of dopamine as a functional monomer in the supporting electrolyte 3 M - 0.00001 M KCl / NaCl / LiCl.