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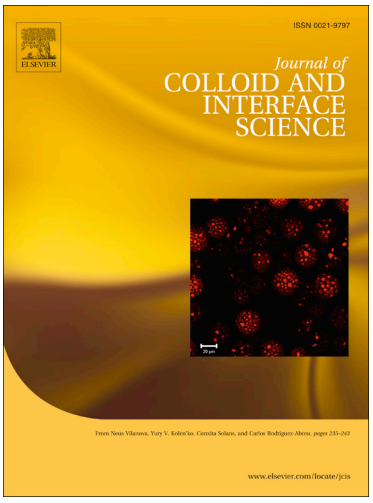

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Graphene-like carbon nitride nanosheet as a novel sensing platform for electrochemical determination of tryptophan

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ABSTRACT

In this paper, a new and facile strategy has been demonstrated for the electrochemical determination of tryptophan (Trp), based on graphite-like carbon nitride (g-C_3N_4) nanosheets modified glassy carbon (CNNS/GC) electrode. The g-C_3N_4 nanosheets were obtained via exfoliating bulk graphitic carbon nitride (bg-C_3N_4), which was synthesized using a thermal poly-condensation process. The obtained g-C_3N_4 nanosheets were characterized by x-ray diffraction (XRD), transmission electron microscopy (TEM), Fourier transform infrared (FTIR) spectroscopy and atomic force microscopy (AFM). The results confirmed graphite-like structure with thickness of about 6-8 nm. The as-synthesized g-C_3N_4 nanosheets were closely attached to the surface of GC

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