

Biomemory Device Utilizing Modified Azurin/Gold Nanoparticle Double Layers for Signal Enhancement

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By conjugating modified azurin and gold nanoparticles (GNP) to gold surface, a signal enhanced biomemory device has been created. Azurin and GNP double-layer were confirmed by atomic force microscopy (AFM) and were further assessed by cyclic voltammetry (CV) and surface plasmon resonance (SPR). The modified azurin has a cysteine residue within its structure which enables it to self-assemble onto the gold surface without any ligands. Additionally, GNP amplifies the redox signal which can be given the meaning of biomemory utilizing chronoamperometry (CA).

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