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Silicon nanowire based biosensing Platform for Electrochemical Sensing of Mebendazole drug Activity on breast cancer cells

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Abstract

Electrochemical approaches have played crucial roles in bio sensing because of their Potential in achieving sensitive, specific and low-cost detection of biomolecules and other bio evidences. Engineering the electrochemical sensing interface with nanomaterials tends to new generations of label-free biosensors with improved performances in terms of sensitive area and response signals. Here we applied Silicon Nanowire (SiNW) array electrodes (in an integrated architecture of working, counter and reference electrodes) grown by low pressure chemical vapor deposition (LPCVD) system with VLS procedure to electrochemically diagnose the presence of breast cancer cells as well as their response to anticancer drugs. Mebendazole (MBZ), has been used as

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