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DNA-binding drug screening by novel palladium nano-crystalline electrod[1] WEI CHEN, Natl Chiao Tung Univ, CHIEN-HAO SU, GUO-CHENG HSU, None, CHIA-CHING CHANG, Natl Chiao Tung Univ, NATIONAL CHIAO TUNG UNIVERSITY TEAM, CHEESHIN TECHNOLOGY CO COLLABORATION, INSTITUTE OF PHYSICS, ACADEMIA SINICA, NANKANG COLLABORATION — The interaction between DNA and small molecule is one of the key issue in drug discovery and pharmaceutical development. Recently, the technique using electrochemistry impedance spectroscopy (EIS) to detect drugs and DNA interaction are widely used However, both operability and sensitivity of conventional electrode probes are low. However, by using novel nanocrystalline palladium (Pd) film electrode both usability and sensitivity increased Therefore, a Pd nano-thin film electrode was used in anticancer drugs and DNA interaction detection. The DNA sequence specificity of the anticancer drug has been demonstrated and the sensitivity is as sensitive as sub nano-gram level. Therefore, we have demonstrated the potential usage of this nanocrystalline palladium (Pd) film electrode in DNA binding drug screening.

[1]DNA-binding drug screening by novel palladium nano-crystalline electrode

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