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Electrochemical Investigation of Interactions between Potential DNA Targeted Compounds, 2,4-Di- and 2,3,4-Trisubstituted Benzimidazo [1,2-a]pyrimidines and Nucleic Acid

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The electrochemical aspects of interactions between DNA and two organic compounds are discussed herein. Potential DNA targeted compounds, 2-methyl-4-phenyl-benzo[4,5] imidazo[1,2-a]pyrimidine (**C1**) and 2,3,4-trimethyl-benzo[4,5]imidazo[1,2-a]pyrimidine (**C2**), were synthesized and their cytotoxic and/or growth inhibitory effects were studied previously. Disposable sensor technology was used to explore the interaction between the compounds and nucleic acid, such as fish sperm DNA at the electrode surface and in the solution phase. The changes upon encountering oxidation signals of electroactive DNA base-guanine and these compounds were monitored electrochemically.

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