Enzymatic determination of hydrazonium salts of dialkyldithiophosphoric acids

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Abstract

The analytical characteristics of procedures for the determination of dimethylhydrazone salts of benzaldehyde and cinnamaldehyde derivatives and dialkyldithiophosphoric acids using native and paper-immobilized butyryl cholinesterase were examined. It was found that, depending on the analytical conditions, the above compounds can exhibit both reversible and irreversible inhibiting effects due to hydrazonium and thiophosphate ions, respectively. Methods were proposed for decreasing the detection limit, including electrochemical activation and suppressing the nonspecific sorption of inhibitors by adding surfactants. © 1998 MAHK Hayka/Interperiodica Publishing.