Observations, in vitro, on $N$-nitrosation by intracellular extracts of some microorganisms isolated from palm wine

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Abstract

Soluble fractions of sonicates derived from cell suspensions of some bacteria and yeasts, which contaminate palm sap, enhanced nitrosamine formation when each fraction was incubated, under sterile conditions, at a pH of $7.0 \pm 0.2$, with either diphenylamine, dimethylamine or diethylamine and sodium nitrite and glucose as substrates. The intrinsic factor in the extracts, which was responsible for the $N$-nitrosation reactions, was heat labile and might be an enzyme; a so-called ‘$N$-nitrosatase’.

- Abbreviations
  - DEN, diethylnitrosamine;
  - DMN, dimethylnitrosamine;
  - GC, gas chromatography;
  - NEDA, naphthylethylenediamine;
  - SA, sulphanilic acid;
- TLC, thin-layer chromatography