

〈シンポジウム：“General Toxicology”〉

## N-ニトロソ化合物の研究の現状

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### Current Status of Research on N-Nitroso Compounds

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#### Abstract

A large number of N-nitroso compounds are carcinogenic in many kinds of animal species. So, researches on N-nitroso compounds in a variety of fields such as carcinogenicity, other toxicities, formation *in vivo* and *in vitro*, analyses have been carried out.

Recently, a specific and sensitive detector for N-nitroso compounds, thermal energy analyzer (TEA), is available. By this analyzer, trace amount of N-nitroso compounds in environment were determined. For example, 49  $\mu\text{g/g}$  of N-nitrosodiethanolamine (NDE1A) is found in cosmetic. It is also found in industrial cutting fluid and the maximum concentration is 3%. NDE1A is carcinogenic to liver by oral administration.

One of the origin of the nitroso moiety of NDE1A is 2-bromo-2-nitropropane-1, 3-diol added as an antimicrobial agent in cosmetics.  $\text{NO}_x$  in air is also one of the candidates for the origin of the N-nitroso group.

As to the other N-nitroso compounds, nitrosodimethylamine in beer, nitrosopyrrolidine in fried bacon, nitrosornicotine in tobacco, etc. were found in environment.