(Exp. Oncol. (Life Science Adv.), 7, 45 (1988))

Mutagenesis of Isopropanolamines and Ethanolamines after Reaction with Sodium Nitrite.

Yukio Mori,* Hiroshi Yamazaki, Kazuhiko Yamamoto, Akira Nakajima, Yoshihiko Yokose, Yoichi Konishi

Mutagenicity of four hydroxypropylamine derivatives, and two ethanolamines before or after nitrite treatment was examined. All of the six amines showed negative mutagenicity on S. typhimurium TA 100 but were positive in the presence of liver activation system after nitrite treatment. Analyses of the reaction mixtures by HPLC and MS revealed the presence of corresponding N-nitrosamine. When ascorbic acid or thiocyanate was added to the reaction mixture, the mutagenic potencies of each amine plus nitrite were roughly proportional to the nitrosation yields. These results demonstrate that these alkanolamine derivatives which occur in various industrial products can show the positive mutagenicity after undergoing nitrosation by nitrite.

(Jpn. J. Cancer Res. (Gann), 79, 698 (1988))

Carcinogenic Potency of N-nitrosomethyl(2-hydroxypropyl)amine and Other Metabolic Relatives of N-Nitrosobis(2-hydroxypropyl)amine by Single Intraperitoneal Injection on the Lung of Rats.

Yoshihiko Yokose, Kazuhiko Yamamoto, Akira Nakajima, Hiroyuki Eimoto, Hiroshi Maruyama, Yukio Mori,* Yoichi Konishi

The carcinogenic effects of a single i.p. injection of N-nitrosobis(2-hydroxypropyl)amine or its metabolic relatives, N-nitrosomethyl(2-hydroxypropyl)amine (MHP), N-nitrosobis(2-oxopropyl) amine, N-nitroso(2-hydroxypropyl)(2-oxopropyl) amine and N-nitroso-2,6-dimethylmorpholine, were studied in male Wistar rats. The main target organ of these nitrosamines proved to be the lung, followed by the thyroid. On the basis of dose administered and incidence of carcinomas, MHP appeared to be the most potent carcinogen of the five nitrosamines.

(Bhāratīya Vidyā, 48(2), 1 (1988))

The Significance of the Brahman in Later Advaitin, Madhusūdana Sarasvatī.

SHOUN HINO

The Knowledge (jnana) (of self-reliance type of religion) and Bhakti (of grace type) are two incompatible means to liberation. Madhusūdana Sarasvatī reconciliates them from the viewpoint of Advaita. In the standpoint of reality (pāramārthasattā), Bhakti is nothing but meditation, so the profane meditates and gets liberated at the moment of realizing its uniqueness with the non-personified sacred Brahman. In the standpoint of worldly dealings (vyāvahārikasattā), Bhakti is a religious act dedicated to God Kṛṣṇa, i. e. the incarnation of the Brahman, so the profane surrenders itself to Kṛṣṇa and gets liberated by grace granted by Kṛṣṇa. Thus his thought of two aspects of Bhakti based on the Brahman in double signification makes it possible to overcome the conflict of the knowledge of the Brahman with the idea of Bhakti.