

In this issue

Benzene level in Mumbai

Rapid urbanization and increased affordability of fossil fuel (petrol) driven vehicles have added new pollutants to urban atmosphere. Benzene is one such pollutant, which cannot be ignored by virtue of its carcinogenicity. Kerbside markets and footpath vendors characterize urban areas in India. They bear the burden of pollution generated by moving vehicles. The levels of benzene in ambient urban air at petrol pumps, traffic junctions, arterial roads, highways, and parking areas of Mumbai were determined by Srivastava *et al.* (page 1315). Benzene was estimated by adsorbing ambient air on adsorbent at constant flow rate, thermal desorption and subsequent analysis on GC-MS. It was observed that concentrations of benzene at kerbsides and traffic intersections were high. Traffic police, vendors, pedestrians are the vulnerable group. They are likely to be exposed for long and short duration to high levels of benzene.

Variation of bioactive components in *Curcuma longa*

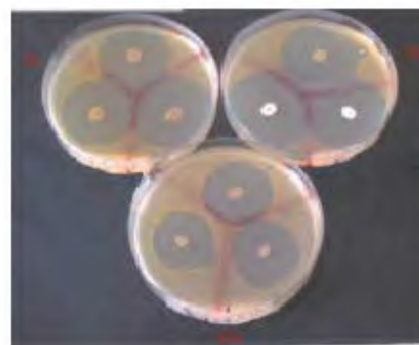
In Thailand, *Curcuma longa* is a popular medicinal herb and mainly used in forms of capsules/tablets for herbal medicine while its extract is popularly used in herbal cosmetics.

So, the quality assessment of this plant is needed to be controlled for the limits of volatile oil and total curcuminoids contents. Pothitirat and Gritsanapan (page 1397) studied *C. longa* rhizome collected from 13 locations in all parts of Thailand with variable amount of bioactive content, but most samples contain volatile oil and total curcuminoids within a range recommended by Standard of ASEAN Herbal Medicine and WHO. The results will be useful as a guidance for standardization of *C. longa* powder and its extracts, and finding high quality sources of *C. longa* in Thailand.

Salt-tolerant and alkaliphilic actinomycetes

Extremophilic actinomycetes have attracted greater attention due to their various natural products and specific mechanism for adaptation to extreme environments. While actinomycetes from normal habitats have focused considerable attention during the last many decades, exploration of such organisms from extreme habitats is a relatively new horizon. The recent discovery of novel primary and secondary metabolites from taxonomically unique populations of extremophilic actinomycetes suggest that these organisms could add a new dimension to microbial natural product

research. In view of this realization, Vasavada *et al.* (page 1393) describe the isolation and antimicrobial potential of a salt-tolerant and alkaliphilic actinomycete, *Streptomyces sannanensis* strain RJT-1. The strain secreted an antibiotic which selectively inhibited the growth of Gram-positive organisms only. Optimum antibiotic secretion occurred with 3% salt at



pH 9. Glucose and inorganic nitrogen sources enhanced the antibiotic production to a greater extent. The results strongly support the idea that species of actinomycetes, capable of growing under selective conditions of pH and salinity, possess a significant capacity to produce compounds having unique antibacterial activity. Work on such actinomycetes has also highlighted on their ability to secrete a range of extracellular enzymes having considerable thermal and chemical resistance against denaturation.