# **Research Activities**

Commercialized Technology

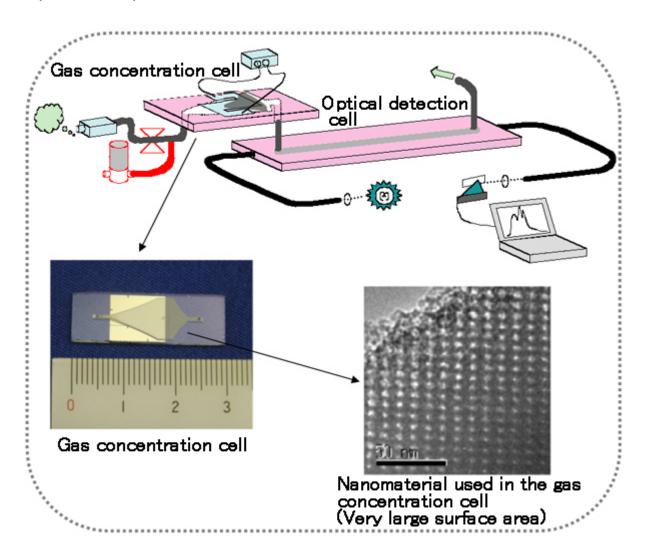
Network Hardware Integration Laboratory

## Portable BTX Gas Sensor

Better awareness of the environment around us

#### What kind of technology is it?

This is a compact and portable sensor designed for the highly sensitive detection and identification of benzene, toluene and xylene (BTX) vapors in ambient air. BTX vapors are three of the most toxic Volatile Organic Compounds (VOCs) for humans, and therefore accurate detection at very low concentrations is essential. This sensor is also portable and autonomous, and it can provide real-time vapor concentration monitoring around the clock, anywhere and anytime.



#### What are the features?

The portable sensor system includes two microfabricated vapor pre-concentration and UV detection cells. When this system is combined with bulk elements such as photo-detectors and pumps, hourly-based measurements can provide the simultaneous monitoring of BTX vapors with both high sensitivity and accuracy. The BTX sensor is easy to operate and maintain, and provides the perfect answer to the need for on-site measurements.

### What can it do?

Our environment changes significantly depending on our activities and habits, and is strongly time and location dependent. This system measures BTX gas concentrations in our environment in great detail, and allows this information to be collected in real time, and extracted from the network anytime and anywhere.



References

For more information on this commercial system please visit Microsystem Integration Laboratories http://www.ntt.co.jp/milab/en/project/pr13\_btx.html