

August 2011

## Issue 10

### **Suzhou Stanford supplies multiple Formaldemeter 400ST for environmental quality test at 'Universiade 2011'.**

**Suzhou Stanford**, one of our distributors in China have supported a company in the bidding for an environmental quality test in Shenzhen, Guangdong Province, where the 'Universiade 2011' games are currently being held. Multiple Formaldemeter 400ST units were supplied to examine IAQ in all rooms, venues and facilities of the event. The **Universiade** is an international multi-sport event, organized for university athletes, it is also known as the World Student Games.



The PPM 400ST is exclusive to our distributor Suzhou Stanford Instruments Ltd in the P.R. China and has also been awarded a P.A. Certificate. (Pattern Approval Certificate of the Measuring instruments of the People's Republic of China)

### **Dr Ken Wai delivers presentation on 'Air Quality of Old Folks Homes'.**

Dr Ken Wai of Hinds International recently held a presentation discussing 'Air Quality in Old Folks Homes'. The presentation is part of the IAQ Lecture Series held by Dr Wai. Over the past 30 months Dr Wai has delivered a series of talks relating to Indoor Air Quality (IAQ) to various academic, professional, commercial & government bodies.

The latest presentation included Dr Wai's recommended guidelines for air quality parameters in business places and also specific guidelines for old peoples homes in Hong Kong. The presentation also outlines our IAQ objectives and the benefits offered by the IAQ Profile Monitoring System.

### **Successful financial year for PPM.**

PPM Technology is nearing end of its 12th financial year. This year's turnover figure is very encouraging; we expect this to be the second best year in regards to turnover for PPM.



We are very grateful to all distributors, customers and other associates who have been integral in contributing to this successful year.

We will continue our policy of continuous development and investing in developing new products and services. The majority of profit made will be re-invested back into the company for research and development.

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Please find the article attached to the newsletter email  
**'Formaldehyde – Sources, Health effects and Safety'.**

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If you have any relevant stories, including any recent or upcoming exhibitions, application stories or customer testimonials that you want to be included in the next newsletter please feel free to contact us:

gevans@ppm-technology.com

## **Embalmers can be exposed to dangerous levels of Formaldehyde.**

Embalmers are at risk of experiencing health effects from the chemical formaldehyde. It is present as a dissolved gas, in concentrations from 37% to 54%, in the water-based solution called formalin.

Formalin is used during the embalming processes as a disinfectant and preservative. It is also commonly used as an injection fluid in arterial and cavity embalming, and in surface embalming as a fluid for soaking surface packs or a gel applied to the skin or internal surfaces. Paraformaldehyde, a powdered polymer form of formaldehyde, is also sometimes used in embalming processes.

A report prepared by the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) for the Australian Department of Health and Ageing found Formaldehyde levels during embalming can be very high, up to 4 parts per million (ppm), with average levels greater than 0.5 ppm. The level of 0.5 ppm is the level at which humans are known to start experiencing discomfort, however we feel anything above the level of 0.1ppm can cause discomfort.

**Report:**[http://www.nicnas.gov.au/publications/information\\_sheets/safety\\_information\\_sheets/sis\\_27\\_formaldehyde\\_embalming.pdf](http://www.nicnas.gov.au/publications/information_sheets/safety_information_sheets/sis_27_formaldehyde_embalming.pdf)

The US Health and Human Services (HHS) recently listed formaldehyde as a carcinogen. It has been found that exposure to small concentrations of formaldehyde can irritate the eyes and mucus membranes, resulting in watery eyes, headache, a burning sensation in the throat, and difficulty breathing. Large exposures of formaldehyde are converted to formic acid in the body, leading to a rise in blood acidity, rapid-shallow breathing, hypothermia, and coma or death.

In order to ensure embalmers and other employees are not exposed to dangerous levels of Formaldehyde in the air, it is advised to detect and monitor levels using a suitable detection instrument, such as the **Formaldemeter htv-m**.

## **Dangerous chemicals can pollute the air in indoor swimming pools.**

Swimming pools (and swimming pool plant rooms) can release all sorts of harmful gases into the poolside environment and accidents happen all too often. This Wireless Monitoring system will continuously detect and record the following parameters:

**Carbon Dioxide - Carbon Monoxide - Chlorine - Ammonia - Temperature & Relative Humidity.**

Chlorine products are used in swimming pools to prevent growth and spread of bacteria and viruses. Nitrogen pollution produced from organic derivatives. (sweat, urine) The combination of the Cl<sub>2</sub> & N<sub>2</sub> containing compounds reacting together can produce Trichloramine (NCl<sub>3</sub>). NCl<sub>3</sub> can produce the same effect as Tear gas and can be found in dangerous levels in indoor pools. This can lead to Recreational Water Illness (RWI) - <http://www.cdc.gov/healthywater/swimming/rwi/rwi-what.html>

Readings are streamed wirelessly to a PC for 24hr 7/7 real-time display and information data storage. Maximum high and low level alarms can be set for each parameter, which will show an alert on screen (& sound an audible alarm - supplied extra) if the levels are reached or exceeded.

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## Mini IAQ Profile Monitors supplied for ice rink air quality monitoring.

PPM have recently supplied a number of Mini IAQ Profile Monitor to Joel Anderson of *Precision Quality Consulting* in a project to monitor air quality in a indoor ice rink; the aim being to provide a safe environment for users and employees of ice arenas.

Indoor Air Quality (IAQ) is a significant concern in ice rinks and arenas; these facilities are especially vulnerable to the affect of an unhealthy indoor environment as fuel-burning equipment such as ice resurfaces are used indoors.

The parameters commonly monitored in ice rinks/arenas are temperature, relative humidity and also carbon monoxide and nitrogen dioxide. The monitoring unit is installed in the ice rinks 'scorer's box'; the monitor continuously receives air samples from the rink, readings are transmitted in real-time to the office computer which stores the readings on easily read graphs.

Multiple alarm levels are available to activate exhaust fans, dehumidification systems, or signal an auto dialer. Energy savings can be achieved by operating the exhaust system more efficiently.

The Mini IAQ Monitor is now recognized by the Minnesota Health Department, as an instrument suitable for monitoring air quality in this environment.

## Gov't lacks legislation to prevent 'Sick Building Syndrome'

20 of 63 employees in a three-story building in Nazareth, Israel have become very sick in recent years, some suffering from cancer.

After hearing about a number of cases in which government workers have become seriously ill due to their building environments, the Knesset Environment and Health Committee held a hearing about "Sick Building Syndrome" (SBS) and the lack of legislation regarding this subject in Israel.

News Item: <http://www.jpost.com/HealthAndSci-Tech/Health/Article.aspx?id=230292>

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PPM Technology Ltd  
Unit 34-35 \* Cibyn Industrial Estate  
Caernarfon \* LL55 2BD \* Wales / UK

Tel: +44 (0)1286 676 999  
Fax: +44 (0)1286 671 811

sales@ppm-technology.com

