



Air quality monitoring at London Heathrow PID lamps track pollution in urban environments

Air pollution such as ozone, nitrogen dioxide, volatile organic compounds (VOCs) and fine particulates - mostly from vehicular emissions - puts a strain on the environment and affects people's health. Real-time monitoring of air quality is important to understand the factors that influence air pollution.

PID lamps manufactured at Heraeus Noblelight Analytics in Cambridge, England, are part of an innovative project that is currently being carried out in and around London Heathrow airport: the Sensor Network for Air Quality (SNAQ) with 50 stations has been installed measuring urban air pollution caused by road and air traffic around Heathrow airport. Heraeus Noblelight supplies Photoionisation Detector lamps (PID lamps) used in the SNAQ sensors. Measurement of Volatile Organic Compounds (VOCs) using portable PID detectors is becoming an economical way to track pollution and air quality in urban environments. PID technology enables fast detection with high sensitivity.

The small battery-powered sensors are lamppost-mounted and contain a number of detectors that measure six gases, volatile organic compounds (VOCs) and airborne particulates. The system works wirelessly – data transmission is via GPS and GPRS to a central server.

Measurement of Volatile Organic Compounds (VOCs) using portable Photoionisation Detectors (PID) enables fast detection at ppb level sensitivity. Heraeus PID lamps are the industry-leaders for lifetime and spectral purity for cost-effective, reproducible analysis. Photoionisation is the term for the absorption of high energy photons by a molecule which results in ionisation of that molecule. The current created by ionisation is proportional to the concentration of the molecule, so this provides a simple method for quantitative analysis of a variety of compounds.

Features

- Economical way for air monitoring
- Fast detection with high sensitivity
- VOCs measurement
- Low power consumption, battery-powered
- Long lifetime



Technical Data

- RF PID lamp Ø 6 mm
- Photon energy 10.6 eV
- Lifetime > 4000 h
- Ident number 8005 8892

Europe, Middle East, Africa, Rest of World*

Heraeus Noblelight GmbH
Heraeusstraße 12-14
D-63450 Hanau
Phone +49 6181 35 5086
Fax +49 6181 35 7970
hng-analyticalamps@heraeus.com
www.heraeus-noblelight.com

America*

Heraeus Noblelight America LLC
1520C Broadmoor Blvd.
Buford 30518, GA, USA
Phone +1 678 835 5681
Fax +1 678 835 5766
info.hna.aa@heraeus.com
www.heraeus-noblelight.com

Asia-Pacific, Oceania*

Heraeus Noblelight (Shenyang) Ltd.
Shanghai Branch
Shanghai 200233, PR China
Phone +86 21 5445 2255
Fax +86 21 5445 2410
info.hns@heraeus.com
www.heraeus-noblelight.com