

Horiba PM2.5 elemental continuous analysis in ambient air.

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In recent years there has been growing concern regarding particulate matter (PM) pollution and its effects on health. For effective preventative measures, source appointment of PM is extremely important. Therefore, indication of PM elemental concentration is also necessary in addition to PM mass concentration. Newly developed PX-375 enables automatic sampling, continuous online PM quantitative and qualitative analysis and rapid air pollution source appointment.

Continuous analysis of PM mass and the elemental concentration by a single unit directly in the field :

- Continuous analysis of PM 2.5 , PM 10 or TSP, mass and the elemental concentration.
- Sampling and the elemental analysis time are selectable.
- Extremely compact design – 19 inch size and easy installation enables the use of the instrument in scientific laboratories, fixed and mobile air quality monitoring stations (AQMS).
- Ideal for variety of applications: ambient air quality monitoring, indoor air quality control, stationary pollution source appointment, etc.
- Continuous analysis provides you the benefits of reducing labor cost and human errors caused by manual analysis.

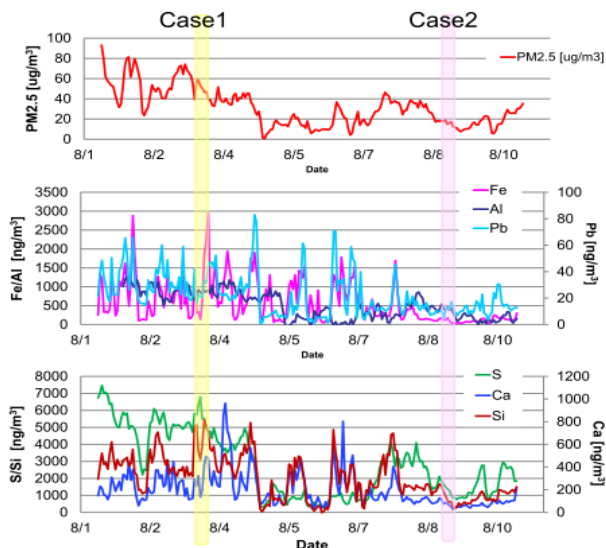


Fig. 4 Time variations of mass and typical element concentrations in the monitoring site

Advanced analysis by world proven technologies:

- Adoption of world proven technologies: X-ray fluorescence & Beta-ray attenuation.

- Compatible with calibration curves evaluated by existing scientific instruments (ICP-MS etc.) for PX-375 calibration.
- Safety features: User is absolutely protected by inter lock. No need to appoint the particular working space and person in charge for the X-ray operation.

HORIBA's newly developed filter tape provides excellent sensitivity and precise performance

- 2 layer non-woven PTFE fabric filter construction prevents passing of PM onto the reverse side.
- Due to the extremely low-impurity concentration, the filter enables ultra low concentration analysis.
- Chemical background of the filter tape is extremely low. Therefore the filter with collected sample could be used for chemical analysis by other scientific analytical instruments. (ICP-MS etc.)

Advantages of HORIBA Original Filter

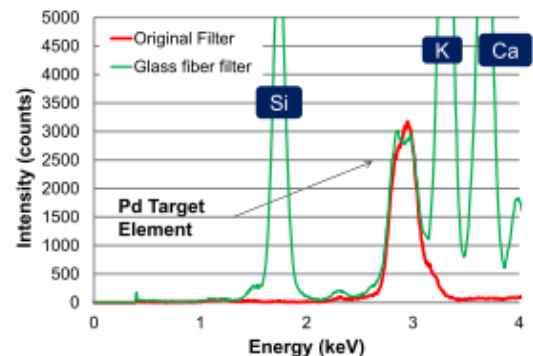


Fig. 2 XRF spectrum comparison

Thanks to this adapted technology, HORIBA propose to monitor from 15 to 30 elements online with suitable detection limits for Europe such as As, Pb, Hg, Ni, S, Cr and many more, on hourly sampling base.