

GASMET™ In Emissions Monitoring Applications Cement Kilns

Emissions from Cement Kilns

Various pollutants are generated in cement manufacturing process. Due to very high process temperatures more oxides of nitrogen are generated than in waste incineration. FTIR can easily cope with higher NOx ranges as well. High dust concentrations are also typical for cement industry emissions. GASMET™ CEMS systems has double filtering system; filter at probe and back up filter at sampling unit, which eliminates dust problems. In extremely high dust concentrations it is also possible to use a pre-filter at probe.



H2O	0-30	Vol-%
CO2	0-25	Vol-%
CO	0-75	PPM
NO	0-800	PPM
NO2	0-200	PPM
N2O	0-100	PPM
SO2	0-75	PPM
NH3	0-15	PPM
CH4	0-100	PPM
HCl	0-15	PPM
HF	0-15	PPM

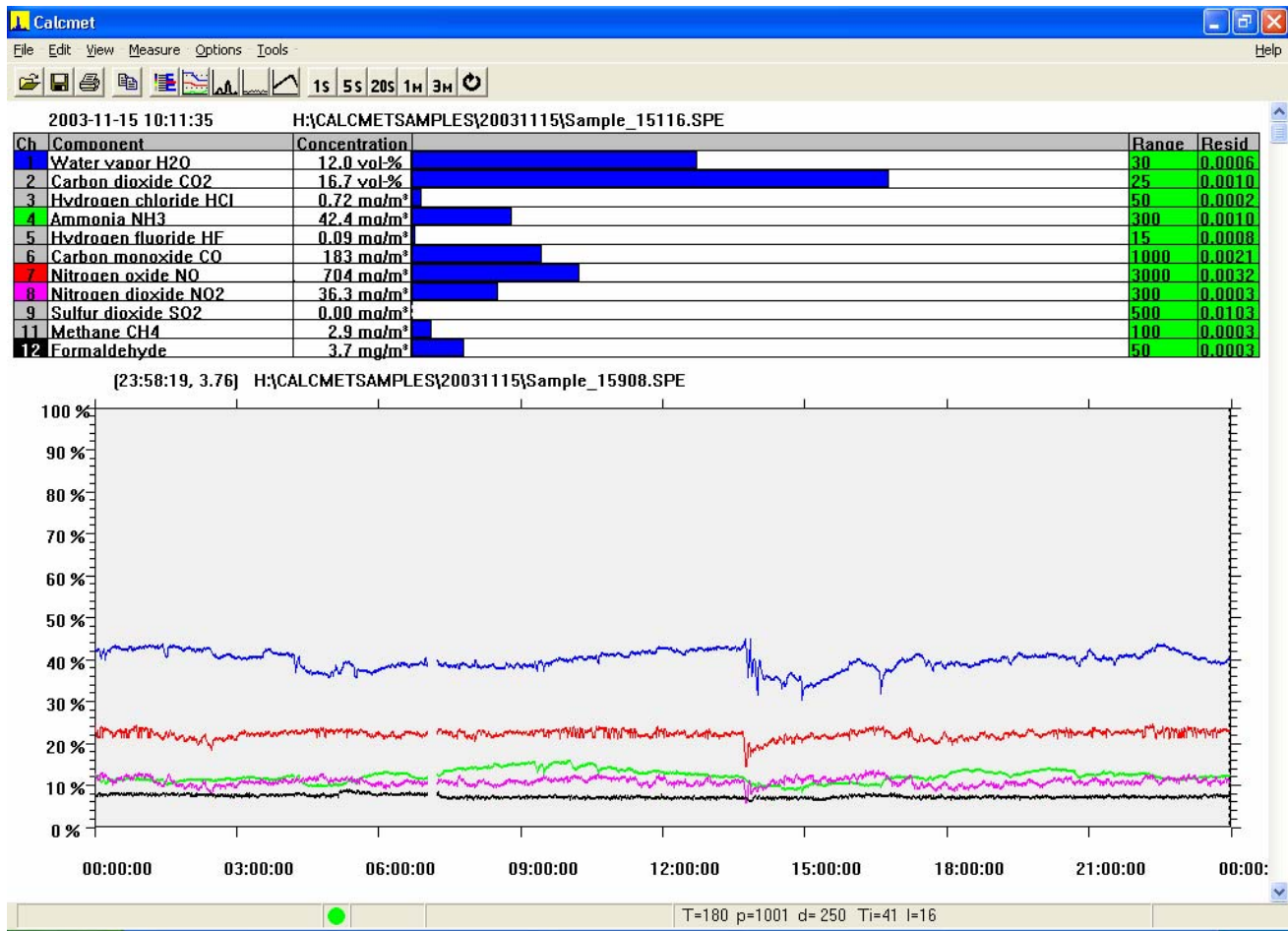
Gasmeter CXCEMS –System:

Gasmeter CX4000 Rack Mount FTIR
Gasmeter sampling unit
Gasmeter PC
ModBus outputs

Heated probe
Heated line
Optional ZrO2 analyzer

Application example: Cement kiln emissions

The data below shows trend of concentrations over 24 hours period. FTIR system produces continuous data the only downtime being daily zero calibration (< 10 minutes).



The results are showing very high NO_x concentrations. As an interesting detail, there is also formaldehyde (CH₂O) in the process emission. FTIR can also reveal such unexpected components from the sample gas.

Gasmeter analyzers and systems include table top, cart mounted, wall mounted and in-situ (flange mounted) models.

