

Remote Chemical Sensing Review

Airborne Chemical Detection Insights

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Remote Chemical Sensing Review, is a publication dedicated to developments in airborne chemical detection and remote analytical technologies.

As sensing platforms become lighter, smarter, and more autonomous, the ability to detect and analyze chemicals from a distance is rapidly transforming environmental monitoring, industrial safety, and emergency response. *The editor/MS.* [Read more...](#)



PERSPECTIVE

What is practically Field Chemical Analysis?

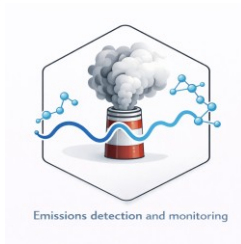
Field is the physical environment or operational space in which chemical measurements are performed directly at or near the location of the phenomenon being investigated, rather than in a laboratory. The field may include natural, urban, industrial, or indoor environments where chemical concentrations vary in space and time. [Read more...](#)



EMERGING APPLICATION

Scanning Buildings from the Air: Detecting Hazardous Emissions

Airborne chemical sensing provides a promising approach for detecting hazardous emissions originating from buildings and enclosed structures. Many illicit or hazardous activities generate volatile organic compounds (VOCs) and solvent vapors that can escape through ventilation systems, windows, roofs, or structural leaks. These emissions may include solvents such as acetone, ether, toluene, benzene derivatives, and other organic precursors commonly used in small-scale “kitchen laboratories”. [Read more...](#)



Emissions detection and monitoring

EMERGING APPLICATION

Airborne Monitoring of Ship Stack Emissions: Remote Detection for Maritime Environmental Compliance

Shipping is a major source of atmospheric pollutants in coastal regions and busy port corridors. Exhaust gases emitted from ship stacks typically contain nitrogen oxides (NO_x), sulphur oxides (SO_x), carbon dioxide (CO₂), particulate matter, and unburned hydrocarbons. These emissions contribute to regional air pollution, acidification, and climate impacts, particularly in areas with dense maritime traffic. Monitoring ship exhaust is therefore an important component of environmental protection and regulatory compliance. [Read more...](#)



Measurements

EMERGING APPLICATION

Reliable Measurements Anywhere: Field Calibration of Chemical Detectors

Field chemical measurements increasingly rely on portable detectors and analyzers operating directly in real environments. In these conditions, reliable measurements require appropriate qualitative and quantitative calibration of the analytical instrumentation. [Read more...](#)

If you would like to discuss any of the topics in this Remote Chemical Sensing review, we look forward to hearing from you at RCS@t4ieng.com.



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