

Analysing Volatile Components of Bushfire Smoke

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Volatile organic compounds (VOCs) from both bushfires and prescribed fires, as well as from unburnt vegetation are important components of the earth system. VOCs are greenhouse gases and pose potential risks to human health. Direct analysis and real time monitoring of VOCs emitted from Australian vegetation, particularly native trees in the genus *Eucalyptus* are a major focus of our bushfire research. Advanced mass spectrometry techniques such as PTR-MS have enabled us to study VOCs from Australian forests at trace concentrations. Our research includes temperature profile studies of a variety of plant tissues, and investigations of smoke composition from combustion studies under controlled atmospheric conditions. This presentation will provide an overview of our methodologies and data from various studies.

Key Words

Mass spectrometry, combustion, smoke composition, biogenic VOCs, eucalyptus