



Atmospheric Chemistry  
Observations & Modeling

## ACOM Seminar

# Biogenic VOC Emissions in a Warming World

Alex Guenther

University of California, Irvine

Date: Thursday, February 22<sup>nd</sup> 2024, 11:00 am – 12:00 pm (MT)

Link: <https://operations.ucar.edu/live-acom>

## ABSTRACT

Biogenic volatile organic compound (BVOC) emissions are highly sensitive to atmospheric composition, climate and landuse change. Model simulations predict regional to global BVOC emission changes of 10% or more per decade but results differ by as much as a factor of five and even on the sign of the change. Evidence of future BVOC emission increase associated with rising global temperature has been offset by studies suggesting other factors, such as increasing carbon dioxide and deforestation, will decrease BVOC emissions resulting in minimal future changes. Recent advances in predicting future BVOC emissions will be described including an improved understanding of established processes and the discovery of previously unknown mechanisms that indicate a trajectory of substantial future BVOC emission increases. This refined knowledge has the potential to offer more reliable predictions of future BVOC emissions, crucial for understanding their impact on atmospheric chemistry and climate.

For more information, please contact Qing Ye (qingye@ucar.edu) or Kyle Zarzana (kzarzana@ucar.edu).

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