

# SEMINAR

## **Insights into the atmospheric chemistry of isoprene from laboratory, field, and modeling studies**

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**Abstract:**

About 500 Tg of isoprene is released to the atmosphere each year from Earth's biosphere. Due to these large emissions, and the high reactivity of isoprene with atmospheric oxidants, the reaction cascade initiated by this single compound can impact the atmospheric oxidative capacity, and the abundances of tropospheric ozone and organic aerosol at the regional and in some cases even the global scale, thereby influencing air quality. Understanding this impact in a quantitative manner however, requires understanding the details of the underlying photochemistry of isoprene and its products over conditions relevant to the chemical environment of the atmosphere. Here, I will discuss recent progress on understanding the isoprene peroxy radical dynamics, isomerization pathways and rates of isoprene peroxy radicals, and the yield and fate of isoprene nitrates mechanism using a combination of laboratory, field, and modeling studies.

**Thursday, 18 August**  
**11 am**  
**FL-1022, Large Auditorium**

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