

## American Chemical Society Public Lecture Series

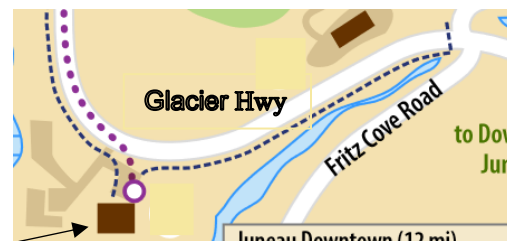
# How Chemistry Helps us View & Understand our Home Planet and its Future



### Dr. Jack A. Kaye

Associate Director for Research  
Earth Science Division  
NASA Science Mission Directorate

February 29, 2024 at 7:00 PM  
UAS Anderson Building, Rm 204



Join remotely via Zoom

<https://alaska.zoom.us/j/82609556139?pwd=dDE2SG4rWFNJT1E4YkoyVjhjbU9qdz09>

Meeting ID: 826 0955 6139; Passcode: 685564



Dr. Kaye oversees NASA's Earth Science Division's Research and Analysis program, covering all Earth's major systems (atmosphere, ocean, biosphere, cryosphere, Earth surface and interior). He represents NASA in many interagency and international activities and has been an active participant in the US Global Change Research Program in which he has served for many years as NASA principal. In this public lecture, Dr. Kaye will discuss the tools and techniques of chemistry that provide a rigorous approach to studies of our home planet, the naturally-occurring and human-induced forcing that act upon it, and how it responds to them. In particular, remote sensing, which is really an applied form of spectroscopy, provides a way to look at large areas of Earth, especially when based on satellites or aircraft. In addition, in situ measurement techniques can provide information on the detailed chemical composition of the Earth system and its components. In this talk, the way the tools and techniques of chemistry are applied by NASA and others to study the Earth and its evolution will be shared. The knowledge gained from these studies can inform our considerations of how the Earth will change in the future and the relationship between human activities and Earth's future.

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