The **Community Atmosphere Model with Chemistry** (CAM-chem) is a component of the NCAR Community Earth System Model (CESM) and is used for simulations of global tropospheric and stratospheric atmospheric composition. Chemistry in CAM-chem is based on the MOZART family of chemical mechanisms, with various choices of complexity for tropospheric and stratospheric chemistry. The first version of CAM-chem is described in Lamarque et al. (2012). An overview of CESM2, which is based on CAM6, is provided by Danabasoglu et al. (2020), with details of the chemistry described in Emmons et al. (2020) and the secondary organic aerosols in Tilmes et al. (2019). CAM6-chem uses the MAM4 modal aerosol model (Liu et al., 2016).

### Run
- Get a Cheyenne Account
- Quick Start - Run on Cheyenne (the NCAR HPC)
- Home Machine (fully coupled version in CESM)
- Glossary for "new users"
- Release Versions and Compsets
- Troubleshooting

### Tutorials
- CESM Tutorials
- MUSICA Tutorial Series

### Easy Changes and Common Resources
- Changing Dates of Run
- Changing Emissions Input
- Changing Output (time and species)
- Defining Meteorology for specified dynamics (on met field levels)
- Defining Meteorology for physics-based nudging (on model levels)
- Restart Files
- Clone a Case
- Create a Branch
- All CAM Namelist Variables

### Advanced Changes
- Updating Gas-phase Chemistry (including kinetics, deposition, aerosol uptake, etc.)
- Tagging CO and simple tracers
- CAM-chem with regional refinement: MUSICA
- Physics-based nudging - creating regridded reanalyses (on model levels)

### Model Component Descriptions
- Wet Deposition
- Dry Deposition
- Gas-phase Chemistry
- Emission Inventories
- Aerosols
- Data Assimilation

### Online Interactive Emissions
- Biogenic Emissions from CLM-MEGAN
- Online Air-Sea Interface for Soluble Species (OASISS)
- Ammonia

### Use and Diagnostics
- Boundary conditions for regional modeling
- Automated CESM diagnostic package
- Using CAM-chem output

### User Community
- Current Users/Projects
- CAM-chem Forum
- Chemistry-Climate Working Group Publications
- CAM-chem Publications from UCAR
- CESM Publications
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