MOSAIC Box Model as a Potential Test Bed for SOA Processes

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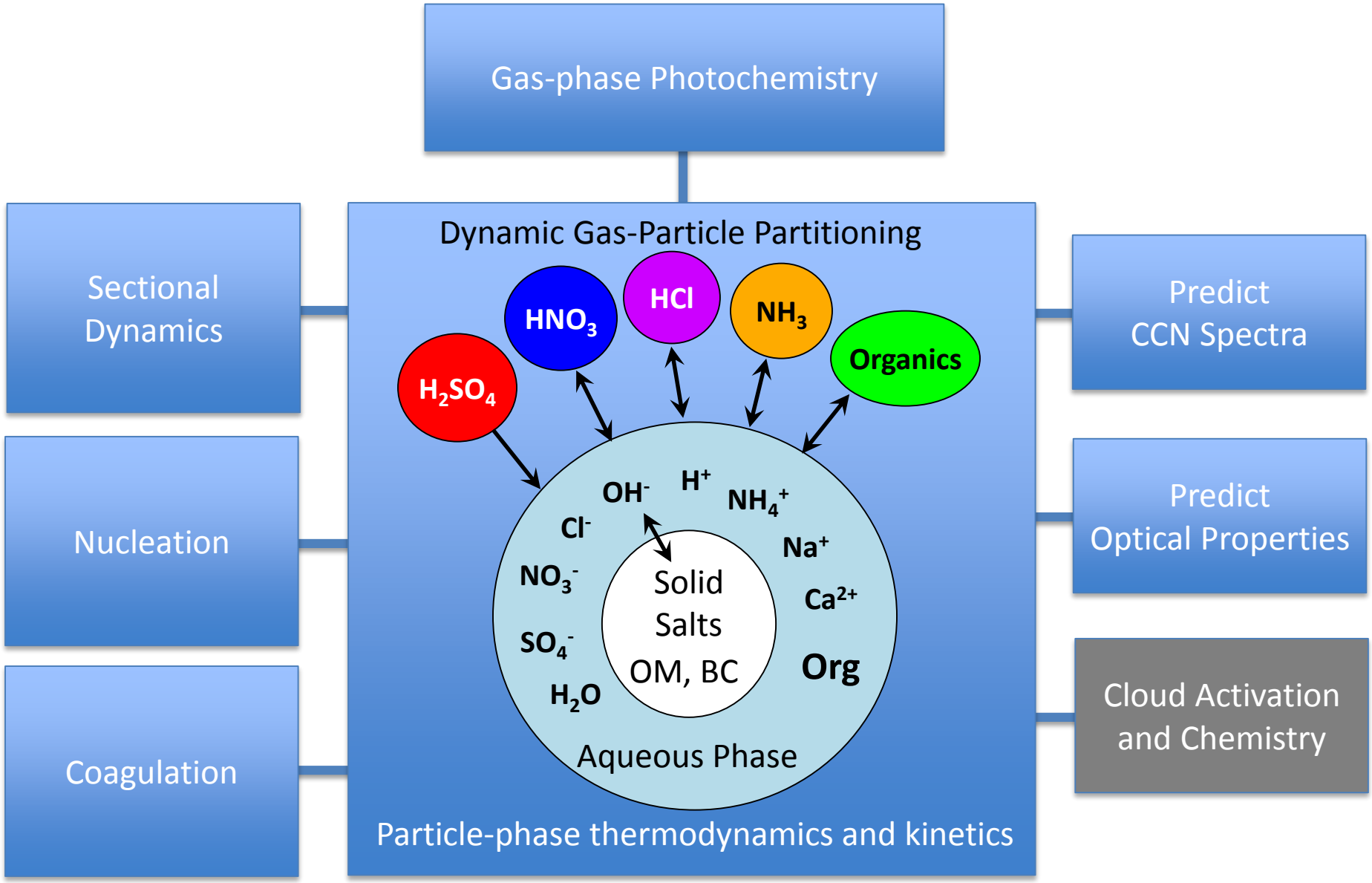
MOSAIC Framework



Box Model Test Bed

Pacific Northwest
NATIONAL LABORATORY
Proudly Operated by Battelle Since 1965

Implement new SOA Processes

MOSAIC Box Model

Evaluate using Chamber/Lab Experiments

Lagrangian Trajectory Box Model

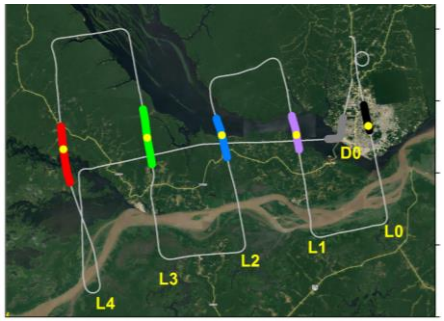
Sectional MOSAIC
PartMC-MOSAIC

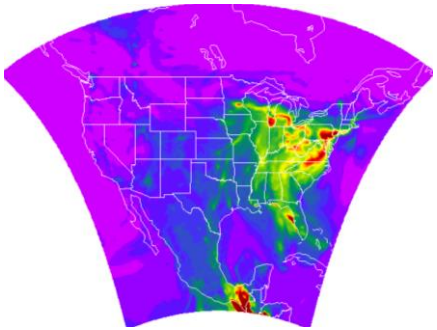
Regional Model

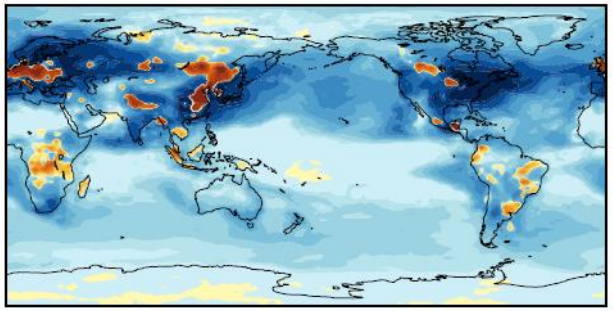
WRF-Chem-MOSAIC

Global Models

CAM5-MOSAIC
E3SM-MOSAIC (future)







Collaboration between ASR Scientists and Beyond

1) Implement and evaluate recently developed SOA processes within Lagrangian trajectory box model and/or regional WRF-Chem model.
2) Develop and evaluate new treatments using existing/new chamber/lab experiments
3) Make new and well tested developments in MOSAIC easily accessible to other groups via:
   - DOE E3SM
   - NCAR CAM5
   - NASA GEOS5 and GEOS-Chem
   - EPA CMAQ
   - Canadian GEM-MACH
   - Japanese CTM