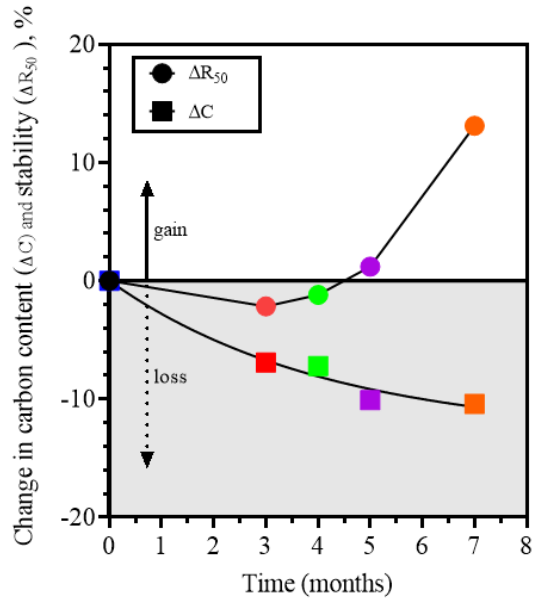


# Introduction

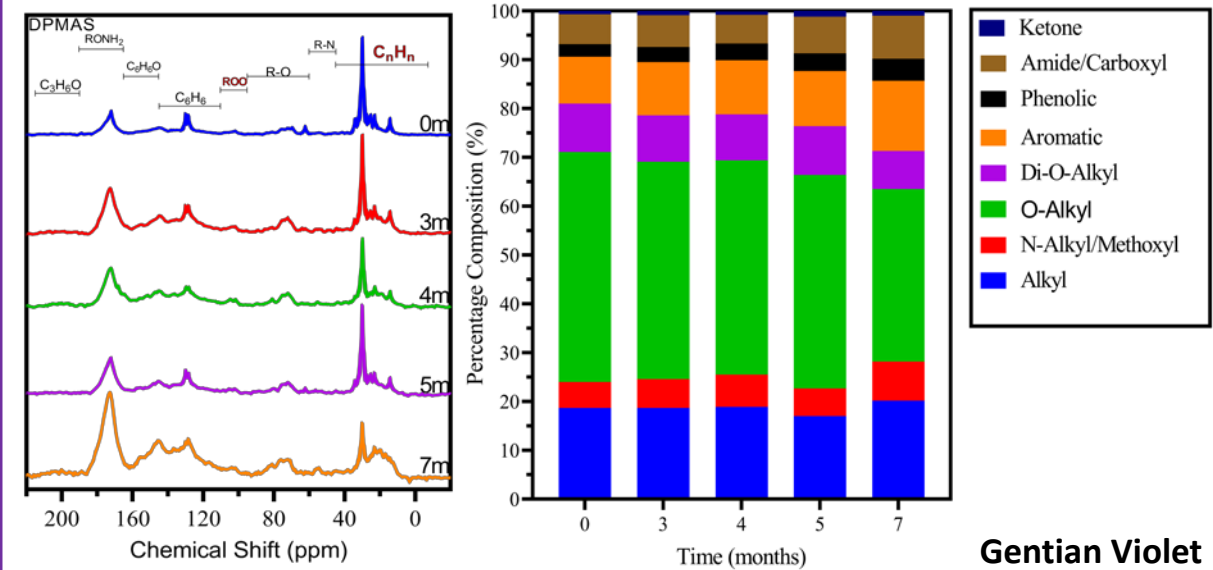
- Microbial degradation of organic matter plays an important role in **climate change** and **chemical pollution**
- Fungal activity on plant biomass alters molecular structure and susceptibility to degradation



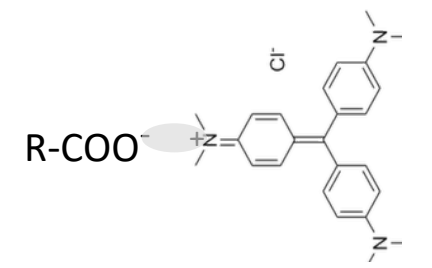
- Fungal activity increases carbon resistance to degradation thus improving carbon sequestration as a solution to climate change

# Changes in Chemical Composition

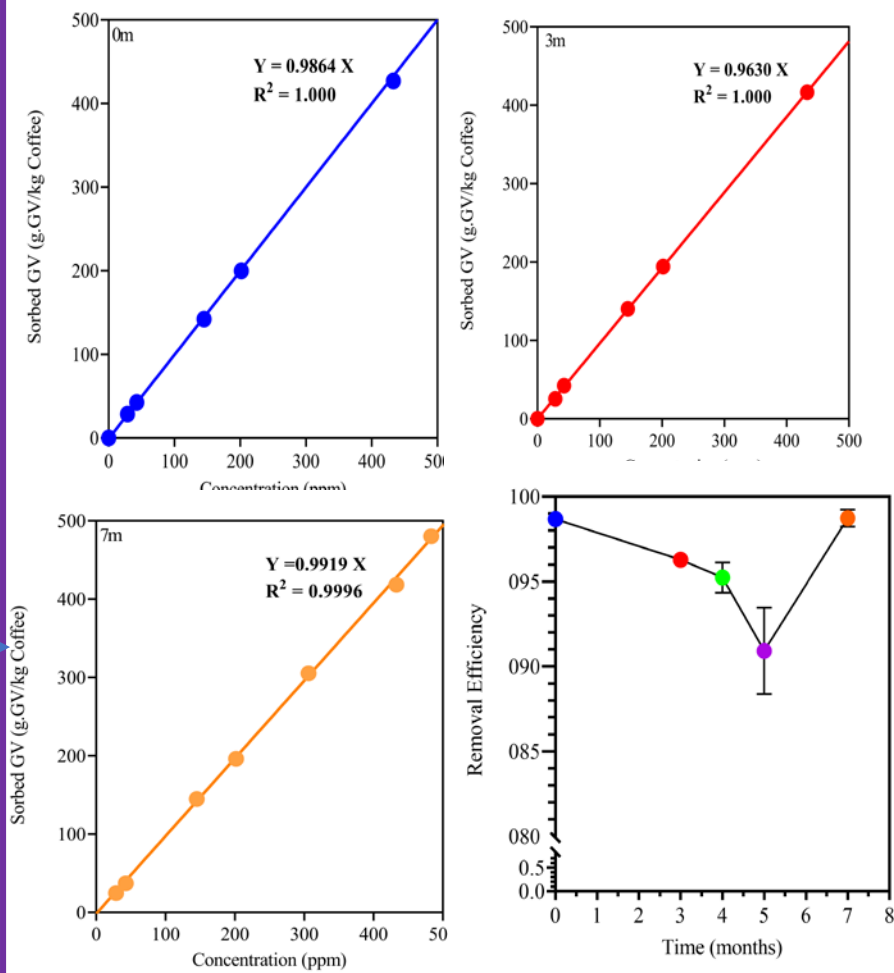
- Fungi consumes methyl groups faster than aromatic groups



- Negative charge on carboxylic groups create potential for cationic adsorption via electrostatic attraction



- Plant biomass stability and sorptive capacity are driven by the presence of strong bonds and negative charges in residual functional groups respectively



- Fungal-induced alterations in plant biomass may increase carbon sequestration potential and capacity to remove cationic pollutants

## Fungi-induced Alterations on Plant Biomass: Impacts on Carbon Sequestration Potential and Pollution Control