

Supplementary Material

Light-dependence of Formate (C₁) and Acetate (C₂) Transport and Oxidation in Poplar Trees

Kolby J. Jardine ^{1,*}, Joseph Lei ¹, Suman Som¹, Daisy Souza ², Chaevien S. Clendinen ³, Hardeep Mehta ³, Pubudu Handakumbura ³, Markus Bill ¹, Robert P. Young ³

1*. Climate and Ecosystem Science Division, Lawrence Berkeley National Laboratory, Berkeley, CA, USA; kjjardine@lbl.gov

2. Forest Management Laboratory, National Institute for Amazon Research, Manaus, Brazil

3. Environmental Molecular Sciences Laboratory, Pacific Northwest National Laboratory, Richland, WA, USA

Supplementary Information Content

Supplementary Figure S1: Time series of headspace $\delta^{13}\text{CO}_2$ in a dynamic poplar branch enclosure during a DXSI experiment using a 10 mM solution of [¹³C]formate.

Supplementary Figure S2: Time series of headspace $\delta^{13}\text{CO}_2$ in a dynamic poplar branch enclosure during a DXSI experiment using a 10 mM solution of [¹³C]formate which is subsequently switched to a 50 mM solution of [¹³C]formate.

Supplementary Figures

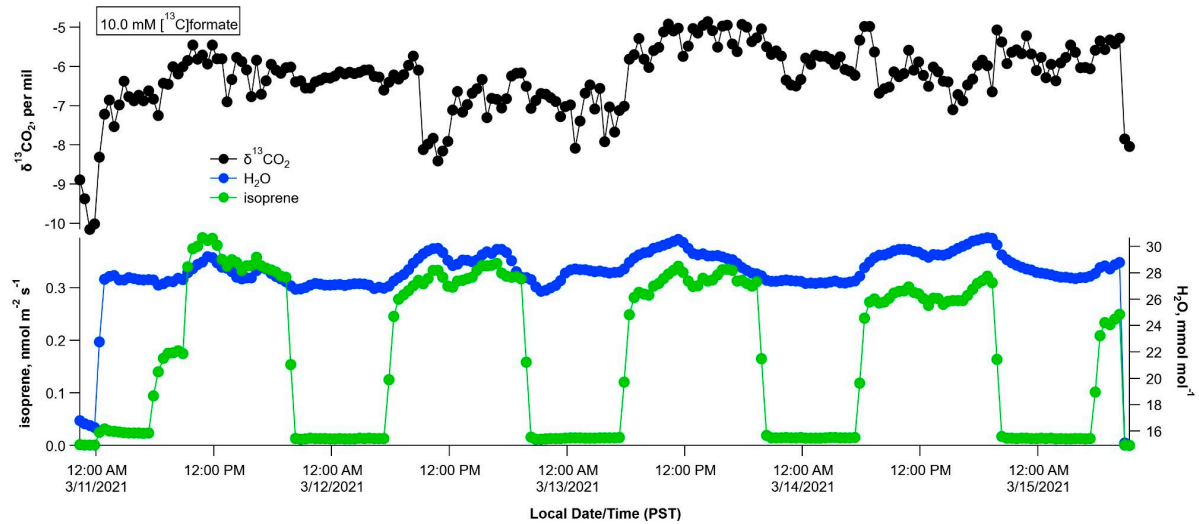


Figure S1: Time series of headspace H₂O water vapor concentrations, isoprene emissions, and headspace with $\delta^{13}\text{CO}_2$ in a dynamic poplar branch enclosure during a DXSI experiment using a 10 mM solution of [¹³C]formate. The first and last part of the time series is an empty branch chamber.

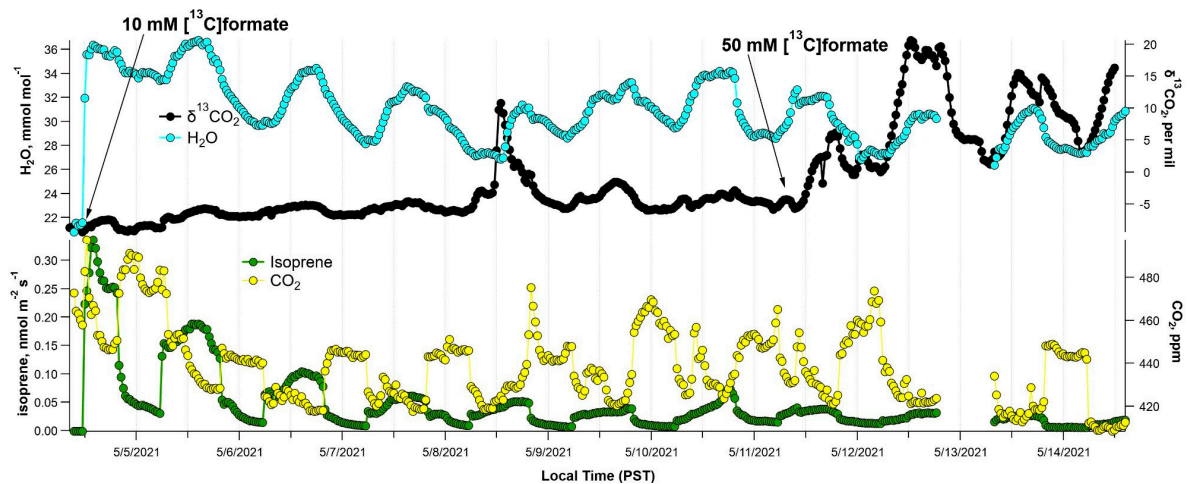


Figure S2: Time series of headspace H₂O water vapor concentrations, isoprene emissions, and headspace with $\delta^{13}\text{CO}_2$ in a dynamic poplar branch enclosure during a DXSI experiment using a 10 mM solution of [¹³C]formate which is switched to a 50 mM solution of [¹³C]formate (indicated by arrow). The first part of the time series is an empty branch chamber.