

1 Author's response for

2 **Understanding the Mechanism and Importance of Brown**
3 **Carbon Bleaching Across the Visible Spectrum in Biomass**
4 **Burning Plumes from the WE-CAN Campaign**

5 Yingjie Shen¹, Rudra P. Pokhrel^{1, a}, Amy P. Sullivan², Ezra J. T. Levin^{2, b}, Lauren A. Garofalo³,
6 Delphine K. Farmer³, Wade Permar⁴, Lu Hu⁴, Darin W. Toohey⁵, Teresa Campos⁶, Emily V.
7 Fischer², Shane M. Murphy¹

8 ¹Department of Atmospheric Science, University of Wyoming, Laramie, WY 82071, USA.

9 ²Department of Atmospheric Science, Colorado State University, Fort Collins, CO 80523, USA

10 ³Department of Chemistry, Colorado State University, Fort Collins, CO 80523, USA

11 ⁴Department of Chemistry and Biochemistry, University of Montana, Missoula, MT 59812, USA.

12 ⁵Department of Atmospheric and Oceanic Sciences, University of Colorado Boulder, Boulder, CO 80309, USA

13 ⁶National Center for Atmospheric Research, Atmospheric Chemistry Division, Boulder, CO 80301, USA

14 ^anow at Air Pollution Control Division, Colorado Department of Public Health and Environment, Denver, CO 80246,
15 USA

16 ^bnow at METEC Research Group, Colorado State University Energy Institute, Fort Collins, CO 80524, USA

17 *Corresponding author: Shane M. Murphy (shane.murphy@uwyo.edu)*

18
19 We modified Line 130-139 to include a brief justification of the conversion of optical properties to STP as
20 suggested by editor and reviewer 2, and nothing was changed in the supplement document.