Supplementary Material

Comparison of fire-produced gases from wind tunnel and small field experimental burns

David R. Weise^{A,*}, Wei Min Hao^B, Stephen Baker^B, Marko Princevac^C, Amir-Hessam Aminfar^C, Javier Palarea-Albaladejo^{D,E}, Roger D. Ottmar^F, Andrew T. Hudak^G, Joseph Restaino^H and Joseph J. O'Brien^I

^AUSDA Forest Service, Pacific Southwest Research Station, Riverside, CA 92507, USA

^BUSDA Forest Service, Rocky Mountain Research Station, Missoula, MT, USA

^CDepartment of Mechanical Engineering, University of California, Riverside, CA, USA

^DBiomathematics and Statistics Scotland, Edinburgh, Scotland, UK

^EDepartment of Computer Science, Applied Mathematics and Statistics, University of Girona, Girona, Catalonia, Spain

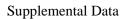
^FUSDA Forest Service, Pacific Northwest Research Station, Seattle, WA, USA

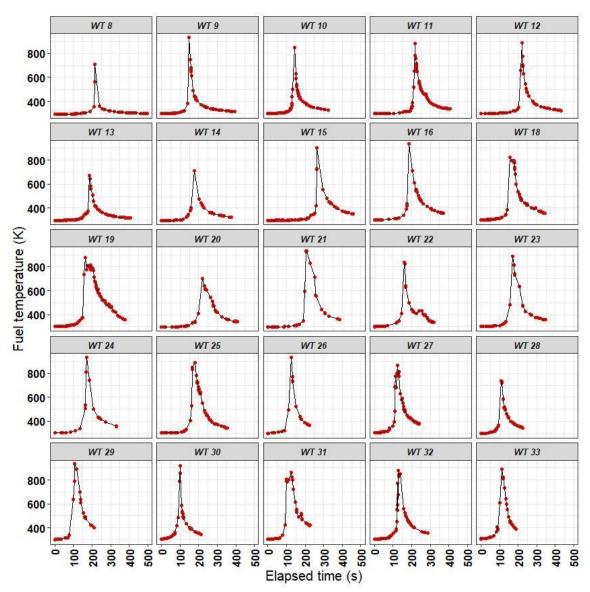
^GUSDA Forest Service, Rocky Mountain Research Station, Moscow, ID, USA

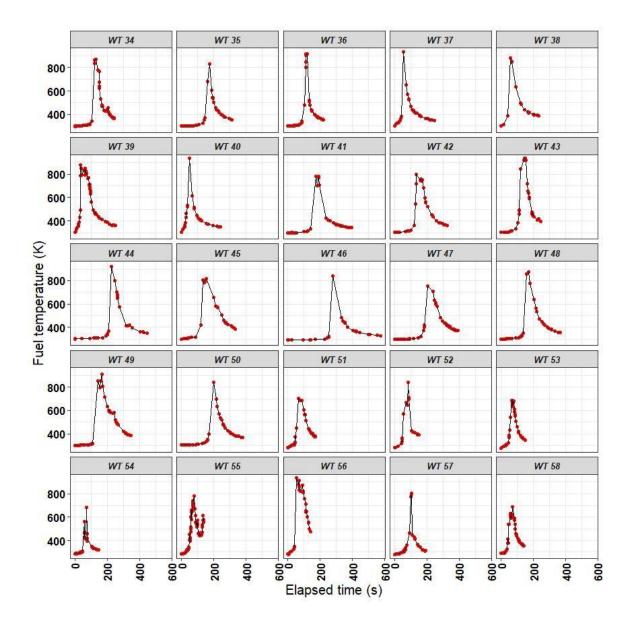
^HCalifornia Department of Forestry and Fire Protection, Fire and Resource Assessment Program, South Lake Tahoe, CA 96150, USA

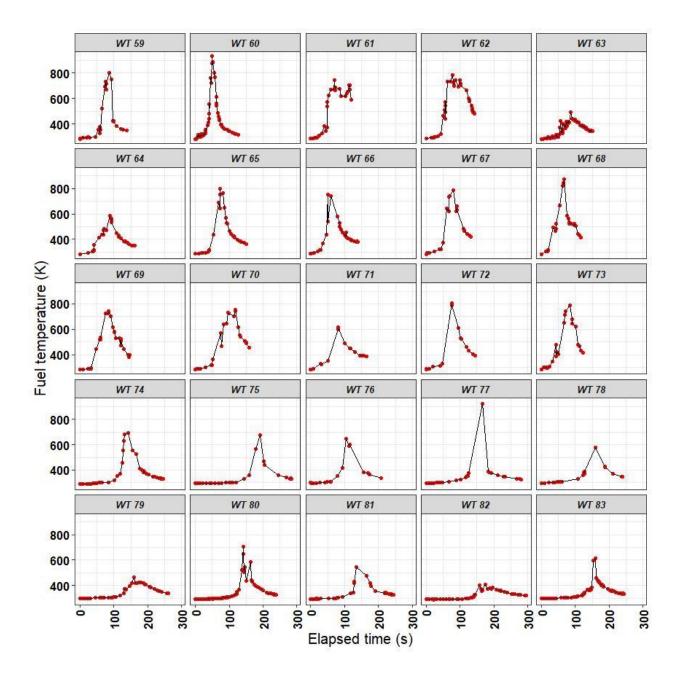
¹USDA Forest Service, Southern Research Station, Athens, GA, USA

*Correspondence to: Email: <u>david.weise@usda.gov</u>









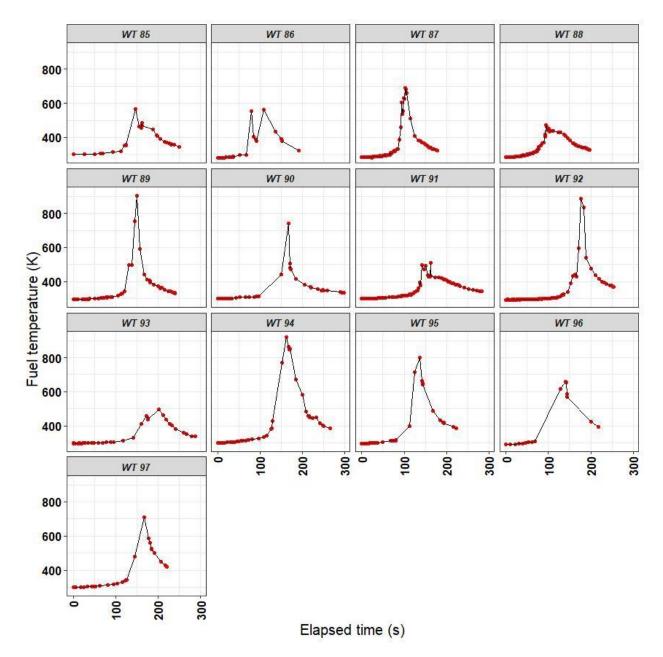


Figure S1. Time trace of uncorrected radiometric temperature of leaf located near FTIR gas sampling probe estimated using a FLIR T640 uncooled long-wave infrared camera. A single temperature trace was extracted from the imagery for each wind tunnel fire.

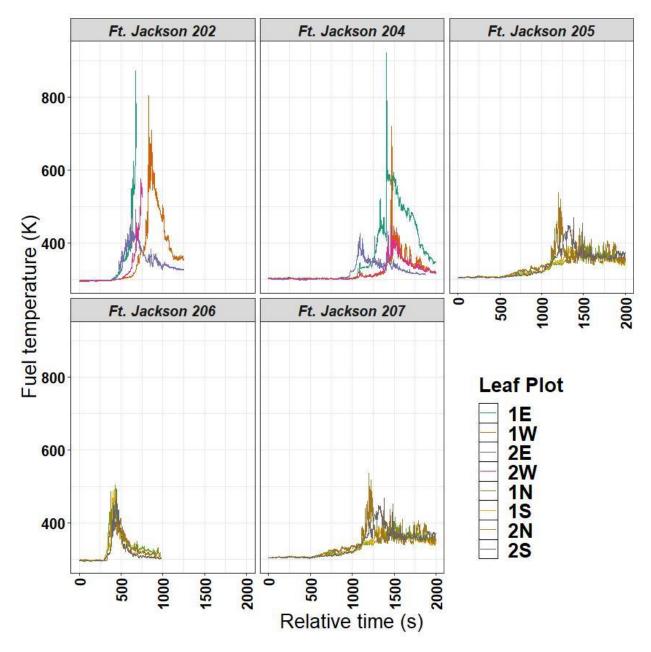


Figure S2. Time trace of uncorrected radiometric temperature of shrub foliage located in small prescribed burns in longleaf pine at Ft. Jackson, SC. Temperatures extracted from FLIR A655 uncooled long-wave infrared cameras in a nadir position several meters above the shrubs. Two 1 x 1 m leaf plots were located in each burn. Two small circular subsets were selected within each to measure temps of 6-8 leaves which were each ~30 pixels in size, each pixel being 6 mm² in area.