

**Previous Work: Excerpt 1**

**Excerpt 1 is included as a Word document so that you may copy and paste it into your paper (and edit it as needed).**

**Excerpt 1. (What Previous Members of Your Group Did)****Experimental Section**

**Prescribed Burns.** PM-2.5 was collected during three prescribed burns conducted by the Peaks Ranger District of the Coconino National Forest Service in October 2003. The prescribed burns took place on three adjacent sites (A-C) of the A1-Mountain region of the Coconino National Forest, a predominantly ponderosa pine (*Pinus ponderosa*) forest near Flagstaff, AZ. All fires were broadcast burns and consumed ~100 acres of downed woody material, litter (dead-brown pine needles), and duff (decomposing litter). Each prescribed burn was sampled during two fire events, ignition/flaming (day 1) and smoldering (day 2).

**PM-2.5 Collection.** During each fire event, ambient air was sampled using a battery-operated PM-2.5 chemical speciation monitor, equipped with a sharp-cut cyclone to remove particles with aerodynamic diameters  $>2.5 \mu\text{m}$  (MetOne SuperSASS, Grants Pass, Oregon). Typical flow rates were 6.5 lpm. Sampling times were 2 h. All samples were collected on Teflon filters (47 mm), which had been pre-conditioned in a control chamber (24 h, 20-25 °C, and 30-40% relative humidity) and pre-weighed (Mettler XS105 analytical balance,  $\pm 0.02 \text{ mg}$ ) for particulate mass analysis. Two samples were collected simultaneously. One sample was analyzed for toxicity (described elsewhere); the other was analyzed for PAH concentrations (this work). One field blank and one lab blank were analyzed for each fire event. No evidence of contamination was observed.

**Extraction and Concentration.** The Teflon filters were extracted in dichloromethane (DCM) using a Soxhlet apparatus (24 h) and concentrated to 1 mL in a Kuderna-Danish concentrator according to EPA Method 3540C. The extractable organic content (EOC) was solvent-exchanged into 1 mL DMSO. The EOC (weighed using microbalance techniques) accounted for 90-92% of the total particulate mass. Extracts were transferred to a 4 mL amber glass vial and stored at -20 °C until analyzed.