A. The result/data of Polycyclic-Aromatic-Hydrocarbons:

Figure 1. The 5-point calibration curves for Polycyclic-Aromatic-Hydrocarbons (PAH) 1-8 using peak areas from chromatographs.

Figure 2. The 5-point calibration curves for surrogate standards (SS) using peak areas from chromatographs.

Figure 3. Concentration and weight percent of PAH-7 and PAH-8 during ignition/smoldering phases using GC/MS analysis.

B. Brief outline of significant point based on the data:

* In the first graph, the concentration of PAH (mg/L) is proportional to the ratio of PAH and IS peak areas multiplied by the known IS concentration (PAH area x [IS])/IS Area. All trendlines, which represent PAH-1 to PAH-8, are increasing. Hence, the study conducted from low PAH concentration to high concentration of PAH, the ratio of PAH and IS peak areas, is bigger.
* In the second graph, the concentration of PAH (mg/L) is proportional to the (PAH area x [IS])/IS Area. Similarly, the concentration of the surrogate standard (SS) is proportional to integral peak areas.
* In the third graph, the weight percent of fluoranthene (PAH-7) is higher than the weight percent of pyrene (PAH-8) during both ignition/smoldering phases. PAH-7 and PAH-8 have a lower standard deviation in the ignition than during smoldering flames. These results indicate that the values of PAH-7 and PAH-8 tend to be very close to the mean. On the other hand, the high standard deviation during smoldering flames indicates that the data of PAH-7 and PAH-8 is spreading out over a large range of values.