

Addition to Determination of Parent and Substituted Polycyclic Aromatic Hydrocarbons in High-Fat Salmon Using a Modified QuEChERS Extraction, Dispersive SPE and GC–MS

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Subsequent to our reported results, we found that the d-SPE materials prescribed for our modified QuEChERS extraction method display lot-to-lot PAH contamination (Figure 1). Whereas

variability of PAH contamination through replicate analyses of the d-SPE tubes and incorporated these findings into new MDL estimates (Table 1). We suggest that researchers seeking to employ this method either use the updated MDLs presented herein or analyze their d-SPE materials for PAH contamination and incorporate findings into their reporting limits.

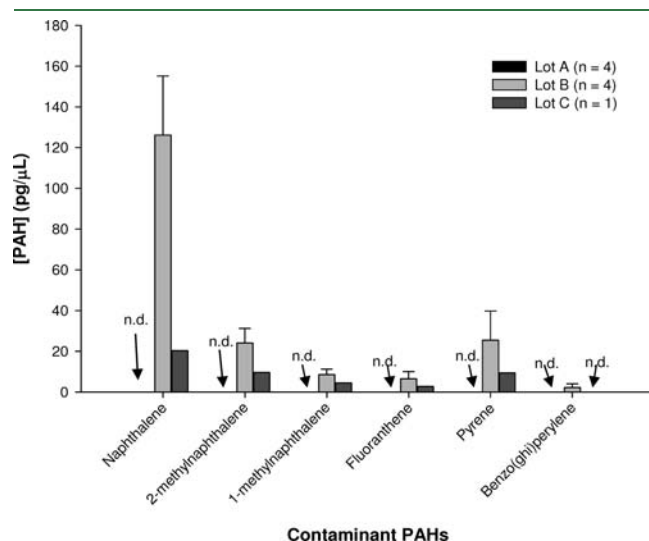


Figure 1. PAH contamination levels in different lots of fatty sample d-SPE materials.

Table 1. Method Detection Limits That Account for Fatty Sample d-SPE PAH Contamination

PAH	modified QuEChERS MDL ($\mu\text{g/g}$)
naphthalene	0.156
2-methylnaphthalene	0.041
1-methylnaphthalene	0.016
fluoranthene	0.021
pyrene	0.078
benzo[<i>g,h,i</i>]perylene	0.012

some lots of d-SPE material showed substantial amounts of PAH contamination (lot B), others displayed very little (lot C) or none at all (lot A). Identified PAH contaminants included naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, fluoranthene, pyrene, and benzo[*g,h,i*]perylene. Average levels of contamination ranged from 126 to 2 $\text{pg}/\mu\text{L}$ for naphthalene and benzo[*g,h,i*]perylene, respectively, and decreased in the order naphthalene > pyrene > 2-methylnaphthalene > 1-methylnaphthalene > benzo[*g,h,i*]perylene. In light of this finding, we characterized the

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