**Supporting information**

**Content**

Table S1. Analytical conditions of GC/MS.

Table S2. Quantitative ions, qualitative ions, retention time, and toxic equivalent factors (TEFs) for eight polycyclic aromatic hydrocarbons (PAHs) and two isotopic PAHs.

Table S1. Analytical conditions of GC/MS.

|  |  |
| --- | --- |
| GC (Agilent Technologies model 7890B) | |
| Column | HP-5MS UI (30 m x 250 µm x 0.25 µm) |
| Oven | 80 °C (1 min) → 4 ◦C/min, 245 °C → 30 ◦C/min, 270 °C (10 min) |
| Post-run | 310 °C (10 min) |
| Flow | 1.5 mL/min, helium |
| Injection | 320 ◦C, splitless mode, 1 µL |
| MS (Agilent Technologies model 5977) | |
| Fragmentation mode | Electron impact at 70 eV |
| Detection mode | Selected ion monitoring mode |

Table S2. Quantitative ions, qualitative ions, retention time, and toxic equivalent factors (TEFs) for

PAH8 and two isotopic PAHs. (TEFs) foe eight PAHs and two isotopic PAHs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Compounds | Quantitative ions (m/z) | Qualitative ions (m/z) | RT (min) | TEFs |
| B[a]A | 228 | 229, 226 | 40.71 | 0.1 |
| CRY | 228 | 229, 226 | 40.93 | 0.01 |
| B[b]F | 252 | 253, 250 | 45.32 | 0.1 |
| B[k]F | 252 | 253,250 | 45.42 | 0.1 |
| B[a]P | 252 | 253, 250 | 46.51 | 1 |
| I[c,d]P | 276 | 277,274 | 52.87 | 0.1 |
| D[a,h]A | 278 | 276,279 | 53.26 | 51) |
| B[g,h,i]P | 276 | 274,277 | 54.59 | 0.01 |
| CRY-d12 | 240 | 236, 241 | 40.978 | - |
| BaP-12 | 264 | 263, 265 | 46.716 | - |
| **1**) For low levels of environmental exposures, 5 could be more applicable. | | | | |