**Table S1**. Content of individual PAHs in chicken breast tenderloins in different marinades and unmarinated grilled on the charcoal grill without a tray (W1) and with an aluminum tray (W2).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PAH** | **PAH content [µg/kg]** | | | | | | | |
| **KMUW1** | **KMKW1** | **KMMW1** | **KBMW1** | **KMUW2** | **KMKW2** | **KMMW2** | **KBMW2** |
| Phen | 36.42±0.06 | 50.78±3.37 | 17.61±0.81 | 51.80±2.63 | 23.87±1.35 | 34.76±3.95 | 14.47±0.25 | 18.02±0.33 |
| Anthr | 16.61±0.36 | 7.69±0.75 | 5.88±0.30 | 26.04±0.87 | 6.20±0.07 | 2.53±0.14 | 3.40±0.34 | 4.48±0.10 |
| F | 24.11±0.04 | 28.19±0.32 | 19.98±0.57 | 32.63±1.32 | 18.20±1.09 | 7.82±0.411 | 9.74±0.66 | 16.12±0.56 |
| Pyr | 11.99±1.19 | 6.17±0.47 | 3.89±0.28 | 6.48±0.37 | 2.03±0.07 | 1.76±0.20 | 1.93±0.17 | 2.46±0.20 |
| C[cd]P | nd | nd | nd | nd | nd | nd | nd | nd |
| B[a]A | 1.08±0.03 | 0.84±0. 05 | 1.56±0.15 | 2.17±0.11 | 0.35±0.02 | 0.40±0.02 | 0.55±0.02 | 0.47±0.01 |
| Chr | 0.84±0.02 | 1.00±0.10 | 1.03±0.02 | 1.02±0.06 | 0.36±0.03 | 0.44±0.02 | 0.62±0.06 | 0.49±0.02 |
| 5-MChr | nd | nd | nd | nd | nd | nd | nd | nd |
| B[j]F | nd | nd | nd | nd | nd | nd | nd | nd |
| B[b]F | 0.72±0.00 | 0.67±0.02 | 0.90±0.01 | 0.71±0.03 | 0.31±0.02 | 0.39±0.01 | 0.58±0.03 | 0.48±0.02 |
| B[k]F | 0.70±0.01 | 0.58±0.02 | 0.86±0.02 | 0.55±0.01 | 0.32±0.02 | 0.37±0.02 | 0.55±0.02 | 0.45±0.01 |
| B[a]P | 1.06±0.03 | 1.08±0.04 | 1.52±0.02 | 1.28±0.02 | 0.51±0.06 | 0.66±0.02 | 0.93±0.03 | 0.76±0.01 |
| D[ah]A | nd | nd | nd | nd | nd | nd | nd | nd |
| D[al]P | 0.84±0.02 | 0.75±0.01 | 0.90±0.03 | 0.64±0.01 | 0.49±0.02 | 0.50±0.03 | 0.66±0.01 | 0.60±0.03 |
| B[ghi]P | 1.17±0.11 | 0.85±0.10 | 1.25±0.17 | 1.06±0.12 | 0.70±0.09 | 0.57±0.09 | 0.91±0.17 | 0.65±0.05 |
| I[cd]P | 0.62±0.08 | 0.55±0.02 | 0.80±0.04 | 0.47±0.02 | 0.26±0.03 | 0.36±0.03 | 0.49±0.04 | 0.41±0.03 |
| D[ae]P | nd | nd | nd | nd | nd | nd | nd | nd |
| D[ai]P | nd | nd | nd | nd | nd | nd | nd | nd |
| D[ah]P | nd | nd | nd | nd | nd | nd | nd | nd |

x nd – not detected. K – Chicken breast tenderloins. MU – Universal marinade, MK – Chicken marinade, MM – Honey–mustard marinade, BM – Without marinade. W1 – Charcoal grill without a tray, W2 – Charcoal grill with an aluminum tray, E1 – Ceramic contact grill, E2 – Cast iron contact grill.

**Table S2**. Content of individual PAHs in chicken breast tenderloins in different marinades and unmarinated grilled on the electric ceramic contact grill (E1) and cast iron contact grill (E2).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PAH** | **PAH content [µg/kg]** | | | | | | | |
| **KMUE1** | **KMKE1** | **KMME1** | **KBME1** | **KMUE2** | **KMKE2** | **KMME2** | **KBME2** |
| Phen | 6.89±0.35 | 7.65±1.29 | 7.21±0.12 | 5.47±0.17 | 6.46±0.40 | 8.18±1.50 | 7.10±0.01 | 5.56±0.31 |
| Anthr | 1.17±0.09 | 2.94±0.07 | 0.91±0.01 | 1.34±0.04 | 1.85±0.05 | 1.27±0.07 | 0.95±0.03 | 1.43±0.06 |
| F | 1.58±0.16 | 7.97±0.14 | 2.27±0.07 | 2.38±0.05 | 3.34±0.10 | 2.85±0.04 | 2.64±0.11 | 3.06±0.51 |
| Pyr | 0.31±0.01 | 1.37±0.06 | 0.59±0.03 | 0.49±0.02 | 0.62±0.07 | 0.67±0.04 | 0.62±0.03 | 0.64±0.02 |
| C[cd]P | ndx | nd | nd | nd | nd | nd | nd | nd |
| B[a]A | nd | 0.16±0.01 | 0.44±0.01 | 0.36±0.00 | 0.41±0.02 | 0.50±0.00 | 0.53±0.01 | 0.45±0.02 |
| Chr | nd | 0.04±0.00 | 0.44±0.02 | 0.37±0.02 | 0.43±0.02 | 0.37±0.03 | 0.46±0.02 | 0.46±0.02 |
| 5-MChr | nd | nd | nd | nd | nd | nd | nd | nd |
| B[j]F | nd | nd | nd | nd | nd | nd | nd | nd |
| B[b]F | nd | 0.06±0.00 | 0.36±0.1 | 0.29±0.01 | 0.32±0.02 | 0.32±0.01 | 0.43±0.01 | 0.41±0.03 |
| B[k]F | nd | 0.02±0.00 | 0.34±0.01 | 0.29±0.01 | 0.28±0.03 | 0.28±0.03 | 0.41±0.00 | 0.40±0.02 |
| B[a]P | nd | 0.05±0.00 | 0.65±0.00 | 0.55±0.01 | 0.51±0.05 | 0.57±0.03 | 0.75±0.01 | 0.73±0.04 |
| D[ah]A | nd | nd | nd | nd | nd | nd | nd | nd |
| D[al]P | nd | 0.07±0.00 | 0.42±0.01 | 0.32±0.01 | 0.40±0.00 | 0.36±0.04 | 0.46±0.02 | 0.44±0.05 |
| B[ghi]P | nd | 0.30±0.04 | 0.54±0.05 | 0.42±0.00 | 0.27±0.01 | 0.44±0.03 | 0.65±0.07 | 0.70±0.12 |
| I[cd]P | nd | nd | 0.36±0.00 | 0.26±0.03 | 0.25±0.02 | 0.34±0.01 | 0.43±0.05 | 0.38±0.05 |
| D[ae]P | nd | nd | nd | nd | nd | nd | nd | nd |
| D[ai]P | nd | nd | nd | nd | nd | nd | nd | nd |
| D[ah]P | nd | nd | nd | nd | nd | nd | nd | nd |

x nd – not detected. K – Chicken breast tenderloins. MU – Universal marinade, MK – Chicken marinade, MM – Honey–mustard marinade, BM – Without marinade. W1 – Charcoal grill without a tray, W2 – Charcoal grill with an aluminum tray, E1 – Ceramic contact grill, E2 – Cast iron contact grill.