# Toestelinstellingen van GC-MS/MS bij de bepaling van organische parameters

# INHOUD

# 1 TOEPASSINGSGEBIED

Deze procedure vervangt procedure WAC/IV/A/006 van augustus 2015 en beschrijft typische GC-MS/MS instellingen voor de bepaling van organische parameters.

# 2 TOESTELINSTELLINGEN GC-MS/MS

De parameters in onderstaande tabel worden bij wijze van voorbeeld gegeven; de beste transities en instellingen van *collision energy* zijn afhankelijk van het merk en type toestel en dienen dus voor elk toestel geoptimaliseerd te worden.

## 2.1 FENOLEN (WAC/IV/A/001)

| Natieve fenolen | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Fenol | 136,0 | 94,0 | 10 |
| | 94,0 | 66,0 | 10 |
| 2-Chloorfenol | 172,0 | 130,0 | 10 |
| | 170,0 | 128,0 | 10 |
| 2-Chloorfenol | 128,0 | 63,0 | 25 |
| | 172,0 | 130,0 | 10 |
| 3-Chloorfenol | 170,0 | 128,0 | 10 |
| | 128,0 | 65,0 | 20 |
| 4-Chloorfenol | 172,0 | 130,0 | 10 |
| | 170,0 | 128,0 | 10 |
| | 128,0 | 65,0 | 20 |
| 2,6-Dichloorfenol | 206,0 | 164,0 | 5 |
| | 204,0 | 162,0 | 5 |
| | 162,0 | 63,0 | 30 |
| 2,5-Dichloorfenol | 206,0 | 164,0 | 10 |
| | 204,0 | 162,0 | 10 |
| | 162,0 | 63,0 | 30 |
| 2,4-Dichloorfenol | 206,0 | 164,0 | 10 |
| | 204,0 | 162,0 | 10 |
| | 164,0 | 63,0 | 30 |
| 3,5-Dichloorfenol | 206,0 | 164,0 | 10 |
| | 204,0 | 162,0 | 10 |
| | 164,0 | 63,0 | 30 |
| 2,3-Dichloorfenol | 206,0 | 164,0 | 10 |
| | 204,0 | 162,0 | 10 |
| | 162,0 | 63,0 | 30 |

| Natieve fenolen | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 3,4-Dichloorfenol | 206,0 | 164,0 | 10 |
| | 204,0 | 162,0 | 10 |
| | 162,0 | 63,0 | 30 |
| 2,4,6-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 198,0 | 97,0 | 30 |
| 2,3,6-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 196,0 | 97,0 | 30 |
| 2,3,5-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 196,0 | 97,0 | 30 |
| 2,4,5-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 196,0 | 97,0 | 30 |
| 2,3,4-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 196,0 | 97,0 | 30 |
| 3,4,5-Trichloorfenol | 240,0 | 198,0 | 10 |
| | 238,0 | 196,0 | 10 |
| | 196,0 | 97,0 | 30 |
| 2,3,5,6-Tetrachloorfenol | 274,0 | 232,0 | 5 |
| | 272,0 | 230,0 | 5 |
| | 234,0 | 133,0 | 25 |
| 2,3,4,6-Tetrachloorfenol | 274,0 | 232,0 | 10 |
| | 272,0 | 230,0 | 10 |
| | 232,0 | 133,0 | 25 |
| 2,3,4,5-Tetrachloorfenol | 274,0 | 232,0 | 10 |
| | 272,0 | 230,0 | 10 |
| | 232,0 | 133,0 | 30 |
| Pentachloorfenol | 270,0 | 170,0 | 25 |
| | 268,0 | 167,0 | 25 |
| | 266,0 | 167,0 | 25 |
| o-Cresol | 150,0 | 108,0 | 5 |
| | 107,0 | 77,0 | 20 |
| | 108,0 | 77,0 | 25 |
| m-Cresol | 150,0 | 108,0 | 5 |
| | 107,0 | 77,0 | 20 |
| | 108,0 | 77,0 | 25 |

| Natieve fenolen | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| p-Cresol | 150,0 | 108,0 | 5 |
| | 107,0 | 77,0 | 15 |
| | 108,0 | 77,0 | 25 |
| 2,6-Dimethylfenol | 164,0 | 122,0 | 10 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 20 |
| 2,5-Dimethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 2,4-Dimethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 3,5-Dimethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 2,3-Dimethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 3,4-Dimethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| o-Ethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| m-Ethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 20 |
| p-Ethylfenol | 164,0 | 122,0 | 5 |
| | 122,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 2-Isopropylphenol | 178,0 | 135,0 | 5 |
| | 136,0 | 121,0 | 10 |
| | 121,0 | 77,0 | 20 |
| 4-Chloor-3-methylfenol | 144,0 | 107,0 | 15 |
| | 142,0 | 107,0 | 10 |
| | 107,0 | 77,0 | 15 |
| 2,3,5-Trimethylfenol | 178,0 | 136,0 | 5 |
| | 136,0 | 121,0 | 10 |
| | 121,0 | 77,0 | 20 |

| Natieve fenolen | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 4-Chloor-3,5-dimethylfenol | 158,0 | 121,0 | 10 |
| | 156,0 | 121,0 | 10 |
| | 121,0 | 77,0 | 15 |
| Bisfenol A | 270,0 | 213,0 | 25 |
| | 255,0 | 213,0 | 10 |
| | 228,0 | 214,0 | 10 |
| | 213,0 | 119,0 | 15 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 13C-Fenol | 142,0 | 100,0 | 10 |
| | 100,0 | 71,0 | 10 |
| 13C-4-Cloorfenol | 172,0 | 130,0 | 10 |
| | 170,0 | 128,0 | 10 |
| | 134,0 | 70,0 | 20 |
| 13C-2,4-Dichloorfenol | 212,0 | 170,0 | 10 |
| | 210,0 | 168,0 | 10 |
| | 168,0 | 68,0 | 25 |
| 13C-2,4,5-Trichloorfenol | 246,0 | 204,0 | 10 |
| | 244,0 | 202,0 | 10 |
| | 202,0 | 102,0 | 25 |
| 13C-2,3,4,5-Tetrachloorfenol | 240,0 | 138,0 | 30 |
| | 238,0 | 138,0 | 30 |
| | 236,0 | 136,0 | 25 |
| 13C-Pentachloorfenol | 276,0 | 174,0 | 30 |
| | 274,0 | 172,0 | 25 |
| | 272,0 | 170,0 | 30 |
| 13C-1,2,4,5-Tetrachloorbenzeen | 224,0 | 189,0 | 15 |
| | 222,0 | 187,0 | 15 |
| | 220,0 | 185,0 | 15 |
| D8 o-Cresol | 157,0 | 115,0 | 5 |
| | 113,0 | 81,0 | 20 |
| | 115,0 | 81,0 | 25 |
| D3-2,4-Dimethylfenol | 167,0 | 125,0 | 5 |
| | 128,0 | 100,0 | 15 |
| | 125,0 | 110,0 | 15 |
| D16-Bisfenol A | 284,0 | 224,0 | 10 |
| | 266,0 | 224,0 | 10 |
| | 242,0 | 225,0 | 15 |
| | 224,0 | 125,0 | 20 |

## 2.2 POLYCYCLISCHE AROMATISCHE KOOLWATERSTOFFEN (WAC/IV/A/002)

| Natieve PAK | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Naftaleen | 128,0 | 102,0 | 20 |
| | 128,0 | 127,0 | 20 |
| Acenaftyleen | 152,0 | 126,0 | 30 |
| | 152,0 | 151,0 | 20 |
| Acenafteen | 153,0 | 152,0 | 20 |
| | 154,0 | 152,0 | 30 |
| Fluoreen | 165,0 | 163,0 | 30 |
| | 166,0 | 165,0 | 20 |
| Fenanthreen | 178,0 | 152,0 | 20 |
| | 178,0 | 176,0 | 30 |
| Anthraceen | 178,0 | 152,0 | 20 |
| | 178,0 | 176,0 | 30 |
| Fluorantheen | 202,0 | 200,0 | 40 |
| | 202,0 | 201,0 | 20 |
| Pyreen | 202,0 | 200,0 | 40 |
| | 202,0 | 201,0 | 20 |
| Benzo(a)anthraceen | 228,0 | 202,0 | 30 |
| | 228,0 | 226,0 | 30 |
| Chryseen | 228,0 | 202,0 | 20 |
| | 228,0 | 226,0 | 30 |
| Benzo(b)fluorantheen | 250,0 | 248,0 | 40 |
| | 252,0 | 250,0 | 40 |
| Benzo(k)fluorantheen | 250,0 | 248,0 | 40 |
| | 252,0 | 250,0 | 40 |
| Benzo(a)pyreen | 250,0 | 248,0 | 40 |
| | 252,0 | 250,0 | 40 |
| Indeno(1,2,3,c,d)pyreen | 276,0 | 272,0 | 50 |
| | 276,0 | 274,0 | 40 |
| Dibenzo(a,h)anthraceen | 278,0 | 274,0 | 50 |
| | 278,0 | 276,0 | 40 |
| Benzo(g,h,i)peryleen | 276,0 | 272,0 | 50 |
| | 276,0 | 274,0 | 40 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| D8-Naftaleen | 136,0 | 108,0 | 20 |
| | 136,0 | 134,0 | 20 |
| D10-1-Methylnaftaleen | 154,0 | 152,0 | 20 |
| | 154,0 | 153,0 | 10 |
| D8-Acenaftyleen | 160,0 | 108,0 | 30 |
| | 160,0 | 132,0 | 30 |
| D10-Acenafteen | 164,0 | 160,0 | 30 |
| | 164,0 | 162,0 | 20 |
| D10-Fluoreen | 176,0 | 174,0 | 20 |
| D10-Fenanthreen | 188,0 | 160,0 | 20 |
| | 188,0 | 184,0 | 30 |
| D10-Anthraceen | 188,0 | 160,0 | 20 |
| | 188,0 | 184,0 | 30 |
| D10-Fluorantheen | 212,0 | 208,0 | 40 |
| | 212,0 | 210,0 | 20 |
| D10-Pyreen | 212,0 | 208,0 | 40 |
| | 212,0 | 210,0 | 30 |
| D10-Benzo(a)anthraceen | 240,0 | 212,0 | 30 |
| | 240,0 | 236,0 | 40 |
| D12-Chryseen | 240,0 | 236,0 | 40 |
| | 240,0 | 238,0 | 20 |
| D12-Benzo(b)fluorantheen | 264,0 | 260,0 | 40 |
| D12-Benzo(k)fluorantheen | 264,0 | 260,0 | 40 |
| D12-Benzo(a)pyreen | 264,0 | 236,0 | 40 |
| | 264,0 | 260,0 | 40 |
| D14-Dibenzo(a,h)anthraceen | 292,0 | 288,0 | 40 |
| D12-Indeno(1,2,3,c,d)pyreen | 288,0 | 284,0 | 40 |
| D12-Benzo(g,h,i)peryleen | 288,0 | 286,0 | 30 |

### 2.3 ORGANOFOSFORPESTICIDEN (WAC/IV/A/010 EN WAC/IV/A/028)

| Natieve OPP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Dichloorvos | 109,0 | 79,0 | 5 |
| | 185,0 | 93,0 | 5 |
| Mevinfos | 127,0 | 109,0 | 5 |
| | 192,0 | 127,0 | 5 |

| Natieve OPP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Ethoprofos | 158,0 | 96,9 | 5 |
| | 200,1 | 158,0 | 5 |
| Demeton | 170,0 | 113,9 | 10 |
| | 219,0 | 183,0 | 10 |
| Dimethoaat | 125,0 | 79,0 | 5 |
| | 229,0 | 87,0 | 5 |
| Terbufos | 231,0 | 175,0 | 5 |
| | 231,0 | 203,0 | 5 |
| Fonofos | 137,0 | 109,0 | 5 |
| | 246,1 | 137,0 | 5 |
| Disulfoton | 153,0 | 97,0 | 5 |
| | 153,0 | 125,0 | 5 |
| Chlorpyrifos-methyl | 125,0 | 79,0 | 5 |
| | 286,0 | 93,0 | 20 |
| Parathion-methyl | 125,0 | 79,0 | 5 |
| | 263,1 | 109,0 | 15 |
| Pirimiphos-methyl | 290,1 | 125,0 | 20 |
| | 290,1 | 233,1 | 5 |
| Malathion | 127,0 | 99,0 | 10 |
| | 173,0 | 99,0 | 10 |
| Fenitrothion | 277,0 | 109,0 | 20 |
| | 277,0 | 260,0 | 5 |
| Chlorpyrifos-ethyl | 314,0 | 258,0 | 15 |
| | 316,2 | 259,9 | 15 |
| Fenthion | 278,0 | 109,0 | 15 |
| | 278,0 | 169,0 | 15 |
| Parathion-ethyl | 139,0 | 109,0 | 5 |
| | 291,0 | 109,0 | 5 |
| Bromophos-methyl | 328,9 | 313,9 | 15 |
| | 330,9 | 315,9 | 15 |
| cis-Chlorfenvinfos | 295,0 | 266,7 | 5 |
| | 297,0 | 269,0 | 5 |
| trans-Chlorfenvinfos | 295,0 | 266,7 | 5 |
| | 297,0 | 269,0 | 5 |
| Bromophos-ethyl | 357,0 | 300,9 | 15 |
| | 359,0 | 302,9 | 15 |
| Methidathion | 145,0 | 85,0 | 5 |
| | 302,0 | 145,0 | 5 |
| Triazopfos | 161,1 | 134,0 | 10 |
| | 257,1 | 162,1 | 10 |

| Natieve OPP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Azinfos-methyl | 132,0 | 77,0 | 15 |
| | 160,0 | 132,0 | 5 |
| Azinfos-ethyl | 132,0 | 77,0 | 15 |
| | 160,0 | 132,0 | 5 |
| Coumafos | 362,1 | 109,0 | 15 |
| | 362,1 | 226,1 | 15 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| D10-Parathion-ethyl | 147,1 | 115,0 | 5 |
| | 301,2 | 115,0 | 5 |

### 2.4 ORGANOSTIKSTOFPESTICIDEN (WAC/IV/A/010 EN WAC/IV/A/028)

| Natieve ONP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Desisopropylatrazine | 175,1 | 147,0 | 5 |
| | 175,1 | 160,0 | 5 |
| Chlorpropham | 153,0 | 89,9 | 15 |
| | 213,1 | 127,0 | 15 |
| Trifluralin | 173,0 | 158,0 | 10 |
| | 306,1 | 264,1 | 10 |
| Desethylatrazine | 187,1 | 172,1 | 5 |
| | 189,1 | 174,1 | 5 |
| Desethylterbutylazine | 186,1 | 83,0 | 15 |
| | 186,1 | 104,0 | 15 |
| Simazine | 201,1 | 173,1 | 5 |
| | 201,1 | 186,1 | 5 |
| Atrazine | 215,2 | 200,1 | 10 |
| | 217,1 | 202,1 | 10 |
| Propazine | 214,1 | 172,1 | 10 |
| | 229,2 | 214,1 | 10 |
| Diazinon | 152,0 | 137,1 | 5 |
| | 304,1 | 179,1 | 5 |
| Terbutylazine | 229,2 | 173,1 | 5 |
| | 229,2 | 214,1 | 5 |

| Natieve ONP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Sebutylazine | 200,1 | 122,0 | 10 |
| | 229,2 | 200,1 | 10 |
| Prometryn | 226,2 | 184,1 | 10 |
| | 241,2 | 184,1 | 10 |
| Terbutryn | 241,2 | 170,1 | 5 |
| | 241,2 | 185,1 | 5 |
| Ethofumesate | 161,3 | 105,1 | 10 |
| | 207,2 | 137,1 | 10 |
| Cyanazine | 225,1 | 198,1 | 5 |
| | 240,2 | 225,1 | 5 |
| Hexazinon | 171,1 | 71,1 | 15 |
| | 171,1 | 83,0 | 15 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| D5-Simazine | 206,2 | 178,1 | 5 |
| | 206,2 | 191,2 | 5 |
| 13C-Atrazine | 218,2 | 203,1 | 10 |
| | 220,2 | 205,1 | 10 |
| D6-Prometryn | 229,2 | 187,1 | 10 |
| | 247,3 | 190,2 | 10 |

### 2.5 ORGANOCHLOORPESTICIDEN (WAC/IV/A/015 EN WAC/IV/A/028)

| Natieve OCP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| Hexachloorbutadieen | 222,8 | 187,9 | 15 |
| | 224,8 | 189,9 | 15 |
| 2,3,5,6-Tetrachloornitrobenzeen | 258,9 | 200,9 | 15 |
| | 260,9 | 202,9 | 15 |
| alfa-HCH | 180,9 | 144,9 | 15 |
| | 182,9 | 146,9 | 15 |
| gamma-HCH | 180,9 | 144,9 | 15 |
| | 182,9 | 146,9 | 15 |
| beta-HCH | 180,9 | 144,9 | 15 |
| | 182,9 | 146,9 | 15 |

| Natieve OCP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| delta-HCH | 180,9 | 144,9 | 15 |
| | 182,9 | 146,9 | 15 |
| Hexachloorbenzeen | 283,8 | 248,9 | 20 |
| | 285,8 | 248,9 | 20 |
| Pentachloornitrobenzeen | 294,8 | 236,9 | 15 |
| | 296,9 | 238,9 | 15 |
| Heptachloor | 271,9 | 236,9 | 15 |
| | 273,9 | 238,9 | 15 |
| Aldrin | 262,9 | 192,9 | 25 |
| | 264,9 | 192,9 | 25 |
| Telodrin | 310,8 | 274,9 | 10 |
| | 310,8 | 275,9 | 15 |
| Isodrin | 262,9 | 193,0 | 25 |
| | 264,9 | 193,0 | 25 |
| beta-Heptachloorepoxide | 352,8 | 262,9 | 15 |
| | 354,8 | 264,9 | 15 |
| alfa-Heptachloorepoxide | 352,8 | 317,0 | 15 |
| | 354,8 | 319,0 | 15 |
| trans-Chloordaan | 372,8 | 265,9 | 20 |
| | 374,8 | 265,9 | 20 |
| cis-Chloordaan | 372,8 | 265,9 | 20 |
| | 374,8 | 265,9 | 20 |
| alfa-Endosulfan | 240,9 | 205,9 | 15 |
| | 242,9 | 207,9 | 15 |
| beta-Endosulfan | 240,9 | 205,9 | 15 |
| | 242,9 | 207,9 | 15 |
| Endosulfansulfaat | 271,9 | 236,9 | 15 |
| | 273,9 | 238,9 | 15 |
| Dieldrin | 262,9 | 192,9 | 25 |
| | 264,9 | 192,9 | 25 |
| Endrin | 262,9 | 192,9 | 25 |
| | 264,9 | 192,9 | 25 |
| o,p'-DDE | 246,0 | 176,0 | 25 |
| | 248,0 | 176,0 | 25 |
| p,p'-DDE | 246,0 | 176,0 | 25 |
| | 248,0 | 176,0 | 25 |
| o,p'-DDD | 235,0 | 165,0 | 25 |
| | 236,9 | 165,0 | 25 |
| p,p'-DDD | 235,0 | 165,0 | 25 |
| | 236,9 | 165,0 | 25 |

| Natieve OCP | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| o,p'-DDT | 235,0 | 165,0 | 25 |
| | 236,9 | 165,0 | 25 |
| p,p'-DDT | 235,0 | 165,0 | 25 |
| | 236,9 | 165,0 | 25 |
| p,p'-Methoxychloor | 227,0 | 227,0 | 5 |
| | 228,0 | 228,0 | 5 |
| o,p'- en p,p'-Dicofol | 139,0 | 111,0 | 15 |
| | 139,0 | 75,0 | 15 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 13C-HCH | 187,1 | 151,0 | 15 |
| | 189,0 | 153,0 | 15 |
| 13C-Hexachloorbenzeen | 290,0 | 255,0 | 20 |
| | 292,0 | 257,0 | 20 |
| 13C-Pentachloornitrobenzeen | 301,0 | 242,0 | 15 |
| | 303,0 | 244,0 | 15 |
| 13- p,p'-DDE | 258,1 | 188,1 | 25 |
| | 260,1 | 188,1 | 25 |
| D8-p,p'-DDT | 243,1 | 173,1 | 25 |
| | 245,1 | 173,1 | 25 |
| 13C-Methoxychloor | 238,2 | 238,2 | 5 |
| | 239,2 | 239,2 | 5 |
| D8-Dicofol | 143,0 | 115,0 | 15 |
| | 143,0 | 78,0 | 15 |

### 2.6 MATIG VLUCHTIGE CHLOORKOOLWATERSTOFFEN (WAC/IV/A/015)

| Natieve PCB en ClKWS | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| PCB-28 | 256,0 | 186,0 | 25 |
| | 258,0 | 186,0 | 25 |
| PCB-52 | 289,9 | 219,9 | 25 |
| | 291,9 | 222,0 | 25 |
| PCB-101 | 323,9 | 253,9 | 25 |
| | 325,9 | 256,0 | 25 |
| PCB-118 | 323,9 | 253,9 | 25 |
| | 325,9 | 256,0 | 25 |

| | | | |
|---|---|---|---|
| PCB-153 | 357,8 | 287,9 | 30 |
| | 359,8 | 289,9 | 30 |

| Natieve PCB en ClKWS | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| PCB-138 | 357,8 | 287,9 | 30 |
| | 359,8 | 289,9 | 30 |
| PCB-180 | 393,8 | 323,8 | 30 |
| | 395,8 | 325,9 | 30 |
| Hexachloorethaan | 198,9 | 163,9 | 15 |
| | 200,9 | 163,9 | 15 |
| 1,3,5-Trichloorbenzeen | 179,9 | 144,9 | 15 |
| | 181,9 | 146,9 | 15 |
| 1,2,4-Trichloorbenzeen | 179,9 | 144,9 | 15 |
| | 181,9 | 146,9 | 15 |
| 1,2,3-Trichloorbenzeen | 179,9 | 144,9 | 15 |
| | 181,9 | 146,9 | 15 |
| Hexachloorbutadieen | 222,8 | 187,9 | 15 |
| | 224,8 | 189,9 | 15 |
| 1,2,3,5-Tetrachloorbenzeen | 213,9 | 108,0 | 40 |
| | 215,9 | 108,0 | 40 |
| 1,2,4,5-Tetrachloorbenzeen | 213,9 | 108,0 | 40 |
| | 215,9 | 108,0 | 40 |
| 1,2,3,4- Tetrachloorbenzeen | 213,9 | 108,0 | 40 |
| | 215,9 | 108,0 | 40 |
| 1- + 2-Chloornaftaleen | 162,0 | 127,0 | 20 |
| | 164,0 | 127,0 | 20 |
| Pentachloorbenzeen | 247,9 | 212,9 | 20 |
| | 249,9 | 212,9 | 20 |
| Hexachloorbenzeen | 283,8 | 248,9 | 20 |
| | 285,8 | 248,9 | 20 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 13C-PCB-28 | 268,0 | 198,0 | 25 |
| | 270,0 | 198,0 | 25 |
| 13C-PCB-52 | 302,0 | 232,0 | 25 |
| | 304,0 | 234,0 | 25 |
| 13C-PCB-101 | 335,9 | 266,0 | 30 |
| | 337,9 | 268,0 | 30 |
| 13C-PCB-118 | 335,9 | 266,0 | 30 |

| | | | |
|---|---|---|---|
| | 337,9 | 268,0 | 30 |
| 13C-PCB-153 | 371,9 | 302,0 | 30 |
| | 373,9 | 302,0 | 30 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 13C-PCB-138 | 371,9 | 302,0 | 30 |
| | 373,9 | 302,0 | 30 |
| 13C-PCB-180 | 405,8 | 335,9 | 30 |
| | 407,8 | 337,9 | 30 |
| 13C-PCB-15 | 234,0 | 164,1 | 25 |
| | 236,0 | 164,1 | 25 |
| 13C-PCB-178 | 405,8 | 335,9 | 30 |
| | 407,8 | 337,9 | 30 |
| D3-1,3,5-Trichloorbenzeen | 183,1 | 147,7 | 15 |
| | 185,1 | 149,9 | 15 |
| 13C-1,2,4,5-Tetrachloorbenzeen | 222,0 | 114,0 | 40 |
| | 224,0 | 114,0 | 40 |
| 13C-Hexachloorbenzeen | 290,0 | 255,0 | 20 |
| | 292,0 | 255,0 | 20 |

### 2.7 POLYBROOMDIFENYLETHERS (TRI- TOT HEXA-) (WAC/IV/A/030)

| Natieve PBDE | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| BDE-28 | 405,8 | 246,0 | 30 |
| | 407,8 | 248,0 | 30 |
| BDE-47 | 483,7 | 325,9 | 30 |
| | 485,7 | 325,9 | 30 |
| BDE-99 | 563,6 | 403,8 | 30 |
| | 565,6 | 405,8 | 30 |
| BDE-100 | 563,6 | 403,8 | 30 |
| | 565,6 | 405,8 | 30 |
| BDE-153 | 643,5 | 483,7 | 30 |
| | 645,5 | 485,7 | 30 |
| BDE -154 | 643,5 | 483,7 | 30 |
| | 645,5 | 485,7 | 30 |

| Interne standaarden | Transitie | | Collision Energie |
|---|---|---|---|
| | Moederion (m/z) | Dochterion (m/z) | (eV) |
| 13C-BDE-28 | 417,8 | 258,0 | 30 |
| | 419,8 | 260,0 | 30 |
| 13C-BDE-47 | 495,8 | 335,9 | 30 |
| | 497,8 | 337,9 | 30 |
| 13C-BDE-99 | 575,7 | 415,8 | 30 |
| | 577,7 | 417,8 | 30 |
| 13C-BDE-153 | 653,6 | 493,7 | 30 |
| | 655,6 | 495,7 | 30 |
| 13C-PCB-209 | 509,7 | 439,8 | 30 |
| | 511,7 | 439,8 | 30 |