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Application of Polychlorinated Biphenyl Signatures for Environmental Fingerprinting

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Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software was unable to automatically identify them as separate compounds in any of the three triplicate samples. However, peak apexes were recorded at the correct time for both CB4 and CB10 indicating that both are present. Further data processing would be required if the data was to be used for quantification of CB4 and CB10.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software was unable to automatically identify them as separate compounds in any of the three triplicate samples.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. CB47 and CB75 were clearly separated. However, because the retention time of CB62 and CB65 was the same on the $^{13}D$ column these two compounds could not be resolved in any of the three triplicate samples.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software correctly identified both PCBs in all three triplicate samples. However, this may not be the case if the congeners were present at different concentrations and therefore further data processing may be required if the data was to be used for quantification of CB58 and CB67.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software correctly identified both PCBs in all three triplicate samples. However, this may not be the case if the congeners were present at different concentrations and therefore further data processing may be required if the data was to be used for quantification of CB88 and CB95.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software correctly identified both PCBs in all three triplicate samples. However, this may not be the case if the congeners were present at different concentrations and therefore further data processing may be required if the data was to be used for quantification of CB89 and CB94.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software was unable to automatically identify them as separate compounds in any of the three triplicate samples. However, peak apexes were recorded at the correct time for both CB90 and CB101 indicating that both are present. Further data processing would be required if the data was to be used for quantification of CB90 and CB101.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software was unable to automatically identify them as separate compounds in any of the three triplicate samples. The retention time of CB160 and CB163 was very similar (0.02 s) which meant each congener could not be reliably identified.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The software correctly identified both PCBs in all three triplicate samples. However, this may not be the case if the congeners were present at different concentrations and therefore further data processing may be required if the data was to be used for quantification of CB182 and CB175.
Marker posts have been manually inserted to represent the position of each PCB recorded in the standard solution. The retention time of CB201 and CB204 was the same on the $^1$D and $^2$D columns; these two compounds could not be resolved in any of the three triplicate samples.

All PCB images were obtained from [http://www.chemspider.com/](http://www.chemspider.com/) (Accessed on 5th July 2013)