

Teuten, E.L., Johnson, C.G., Mandalakis, M., Aplund, L., Gustafsson, O., Unger, M., Marsh, G., and Reddy, C.M. , *Spectral characterization of two bioaccumulated methoxylated polybrominated diphenyl ethers*, Chemosphere, 2006; v62, pp. 197-203.

Two methoxylated polybrominated diphenyl ethers (MeO-PBDEs) were isolated from a True's beaked whale (*Mesoplodon mirus*) and identified by NMR ( $^1\text{H}$ ,  $^1\text{H}-^1\text{H}$  and  $^1\text{H}-^{13}\text{C}$ ) and high resolution mass spectrometry as 2-(20,40-dibromophenoxy)-3,5-dibromoanisole (6-MeO-BDE47) and 2-(20,40-dibromophenoxy)-4,6-dibromoanisole (20-MeO-BDE68). Previously the structures of these bioaccumulated compounds have been determined by comparison of their mass spectra and gas chromatographic (GC) retention times with those of authentic standards. While this method is accepted and generally successful, NMR of the isolated compounds allows us to definitively identify the congeners. Our characterizations are consistent with those made for MeO-PBDEs in other organisms, identified by chromatographic methods.