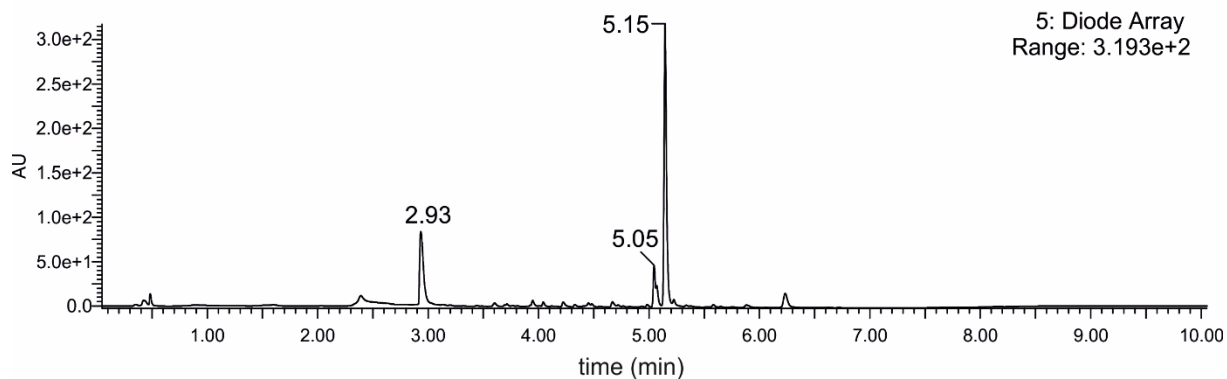
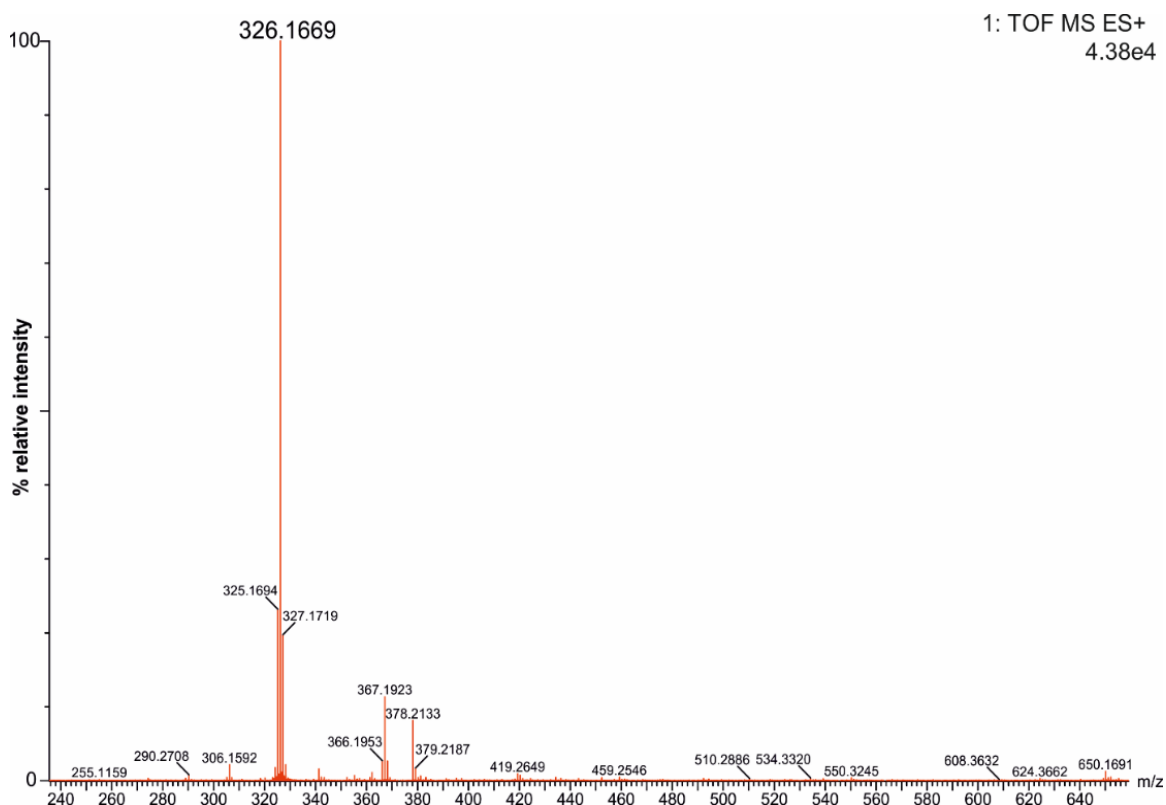


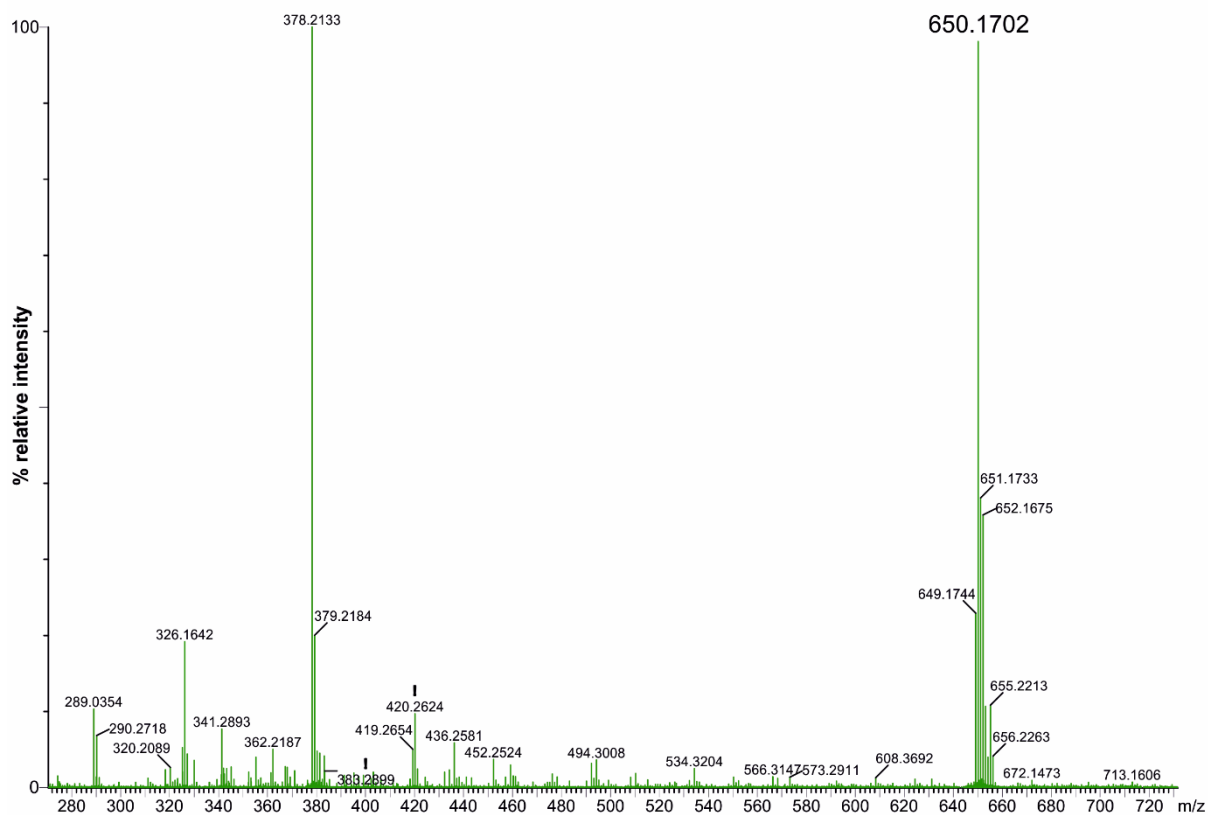
Supplementary Material



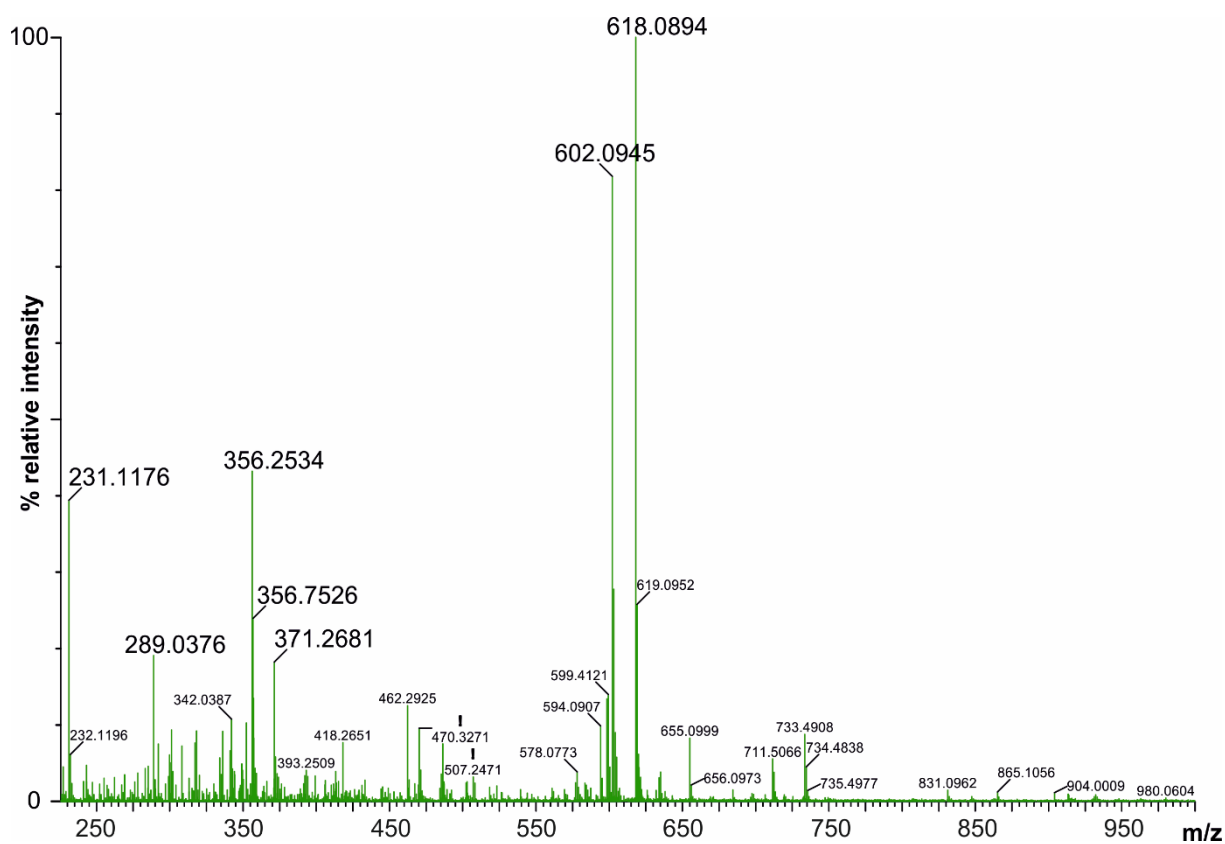
Supplementary Figure 1. UV traces of the UPLC-MS analysis of a mixture of BODIPY-cobaloxime **1** and 0.75 equivalents of Na₂S showing three major absorption bands at 5.15, 5.05 and 2.93 min retention times assigned to the BODIPY ligand, the BODIPY-cobaloxime complex and HS⁻ cobaloxime complex.



Supplementary Figure 2. ESI⁺ mass spectrum corresponding to the absorption band at 5.15 min retention time of the UPLC-MS of a mixture of BODIPY-cobaloxime **1** and 0.75 equivalents of Na₂S (see Supplementary Figure 1).

1: TOF MS ES+
7.85e3

Supplementary Figure 3. ESI+ mass spectrum corresponding to the absorption band at 5.05 min retention time of the UPLC-MS of a mixture of BODIPY-cobaloxime **1** and 0.75 equivalents of Na₂S (see Supplementary Figure 1).



Supplementary Figure 4. ESI+ mass spectrum corresponding to the absorption band at 2.93 min retention time of the UPLC-MS of a mixture of BODIPY-cobaloxime **1** and 0.75 equivalents of Na_2S (see Supplementary Figure 1) showing the ion at $m/z = 356$ assigned to the complex $[\text{Co}(\text{dmgH})_2(\text{Cl})(\text{HS})]^+$.