Electronic Supplementary Material (ESI) for Dalton Transactions.

Harvesting Visible Light for Aerobic Oxidation of Alcohols by a Novel and Efficient Hybrid Polyoxometalate

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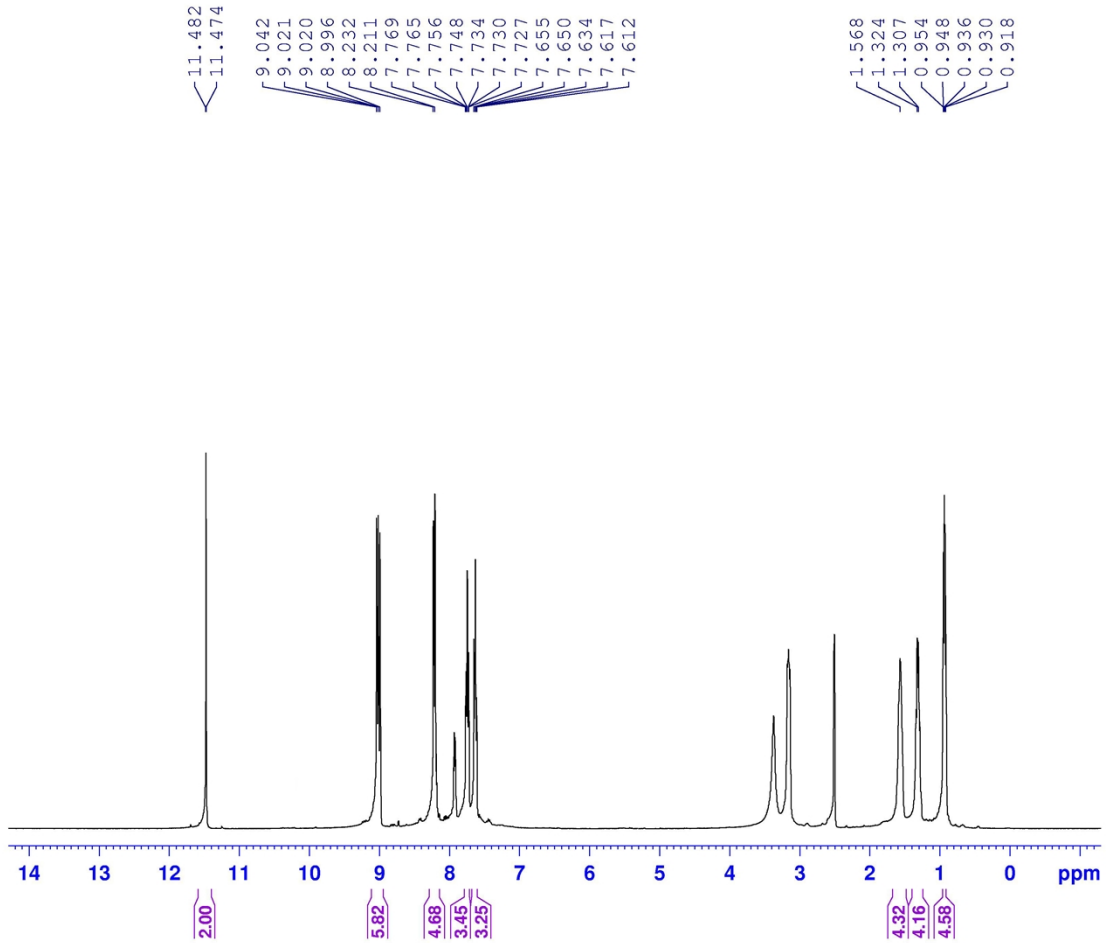

Fig. S1. ^{1}H NMR spectrum of the Hybrid-POM

The ^{1}H NMR spectrum clearly shows the organic moiety on the polyoxometalate. Three different regions are observed in this spectrum. The peak in 11.50 ppm depicts hydrogen in NH group. The peaks between 7 to 9 ppm demonstrate the H atoms in the aromatic part of the compound. Three peaks in the 1-2 ppm region are related to the aliphatic part of the organic moiety.

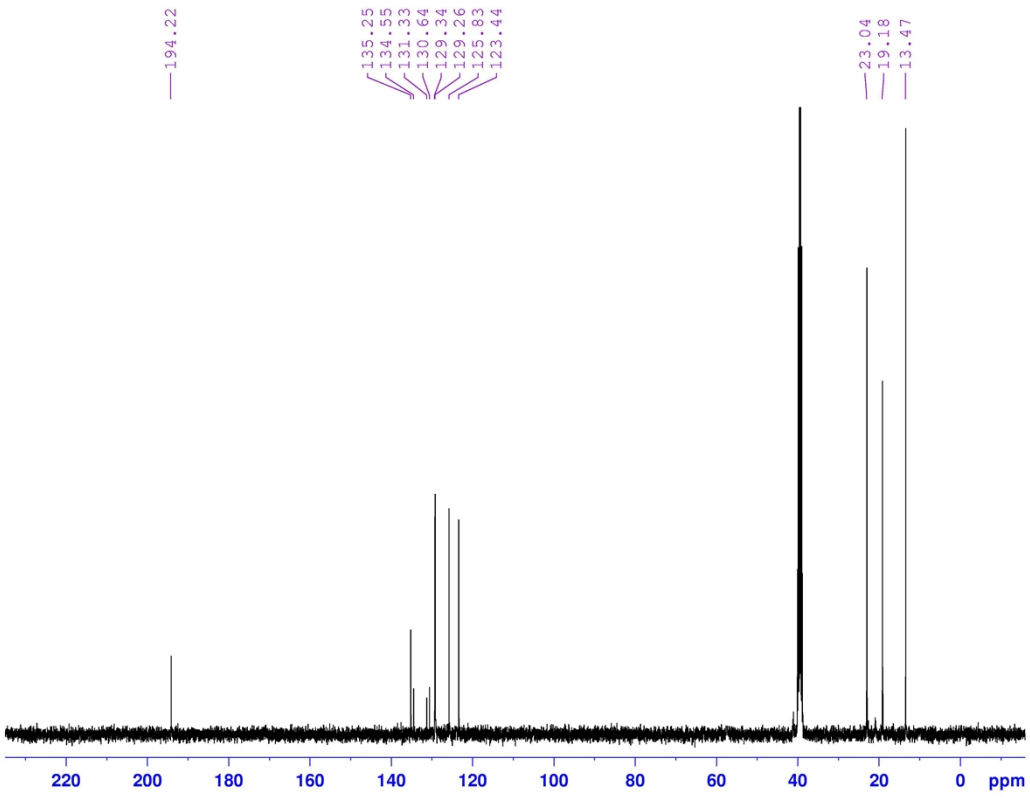

Fig. S2. ^{13}C NMR spectrum of the Hybrid-POM

According to the ^{1}H NMR, in the ^{13}C NMR spectrum three regions are observable. The peak at 195 ppm is related to the C in carbonyl group. The carbons in the aromatic rings are depicted by the peaks in the 120-140 ppm. Three different carbons in the aliphatic part of the organic moiety demonstrate three peaks around 10-20 ppm regions.

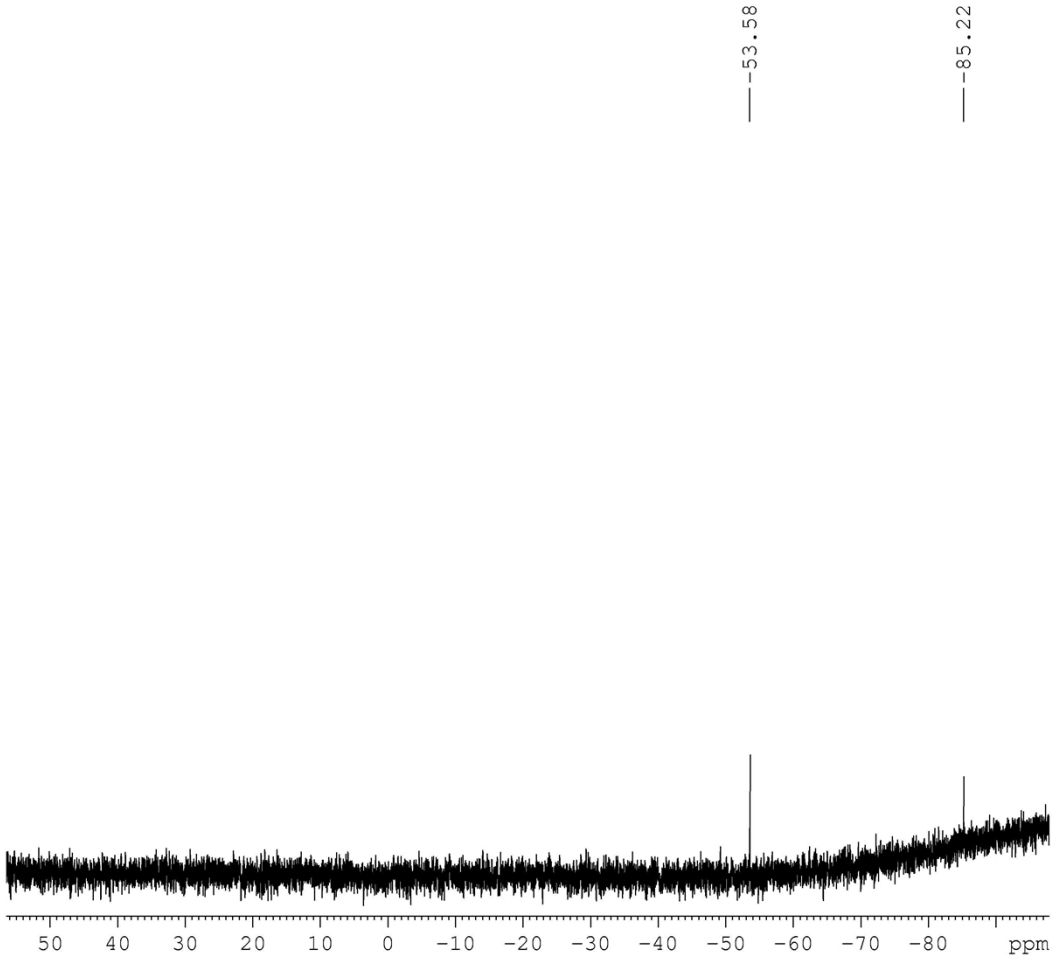

Fig. S2. ^{29}Si NMR spectrum of the Hybrid-POM

As the spectrum shows, two distinct regions can be detected in the -53 and -85 ppm, which are related to the Si atoms in the two different environments. The peak at -53 ppm is attributed to the silicon atom of two (O_3SiR) groups that are accommodated in the vacancy of POM and the peak at -85 ppm is related to the Si heteroatom in the center of the POM.