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Supporting Information:



Fig. S1: ESI-MS spectra of complex 1.



Fig. S2: ESI-MS spectra of complex 2.



Fig. S3: ESI-MS spectra of complex 3.



Fig. S4: IR spectra of complex 1.



Fig. S5: IR spectra of complex 2.



Fig. S6: IR spectra of complex 3.



Fig.S7: Differential Pulse Voltamograms of complexes 2 and 3 in DMF medium.



Fig. S8: X-band EPR spectra of complex 3.



Fig. S9: ESI-MS of a 1:100 mixture of complex 1 and 3,5-DTBC in MeOH after 10-15 minutes of mixing.



Fig. S10: ESI-MS of a 1:100 mixture of complex 2 and 3,5-DTBC in MeOH after 10-15 minutes of mixing.



Fig. S11: ESI-MS of a 1:100 mixture of complex **3** and 3,5-DTBC in MeOH after 10-15 minutes of mixing.



Fig. S12: Electronic spectra of I_3^- obtained from the oxidation of I^- by H_2O_2 generated during catechol oxidation catalysed by complexes **1**, **2** and **3**.



Fig. S13: ESI-MS of complex 1 with excess of Na₂S.



Fig. S14: ESI-MS of complex 2 with excess of Na₂S.