

Electronic Supporting Information

Diiron carbonyl complexes possessing a {Fe(II)Fe(II)} core: synthesis,
characterisation, and electrochemical investigation

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Content

Figure S1 Mössbauer spectrum of complex **3** from powdered samples at 80 K

Figure S2 Mössbauer spectrum of complex **4** from powdered samples at 80 K.

Figure S3 FTIR of the reduction of **4** by 1.0 equiv. LiEt_3BH in DCM solution;

Figure S4 FTIR and CVs of complex **4** before / after electrolysis in DCM solution;

Figure S5 CVs of complex **4** in the absence / presence of acetic acid;

Figure S6 FTIR and electron absorption spectrum of **3**, **4**, **5** and **6**;

Figure S7 ^1H NMR spectrum of **3** in CDCl_3 ;

Figure S8 ^1H NMR spectrum of **5** in CDCl_3 ;

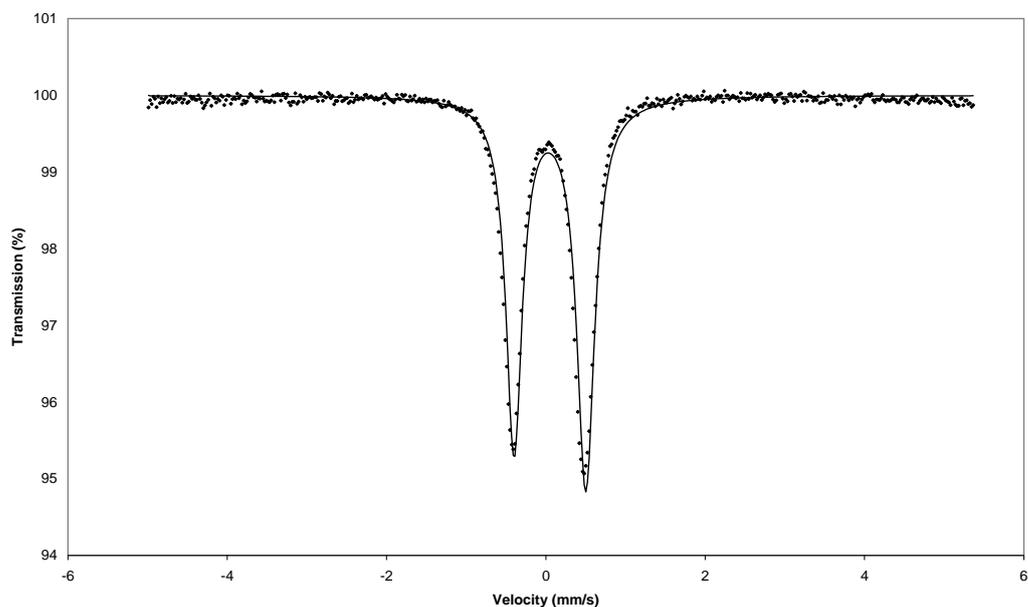


Figure S1 Mössbauer spectrum of complex **3** from powdered samples at 80 K.

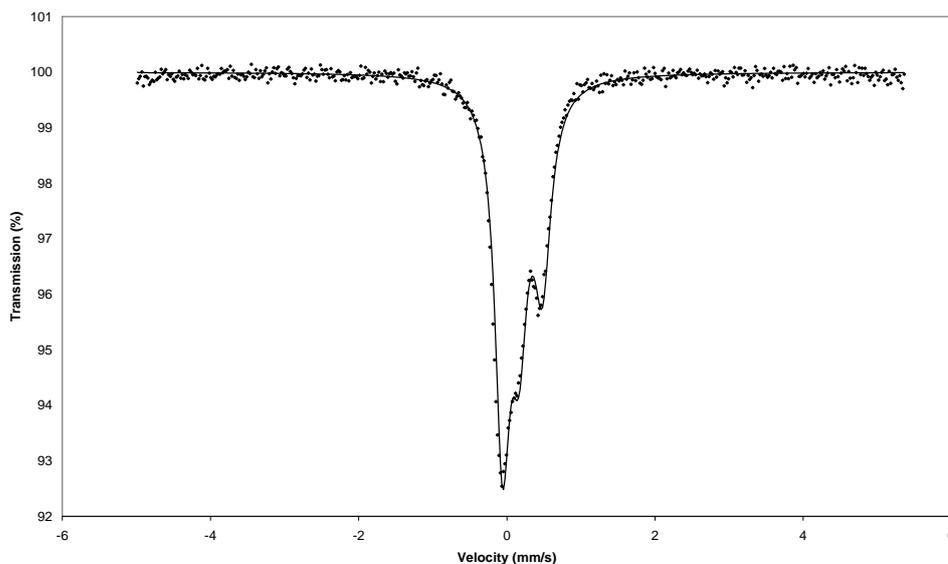


Figure S2 Mössbauer spectrum of complex **4** from powdered samples at 80 K.

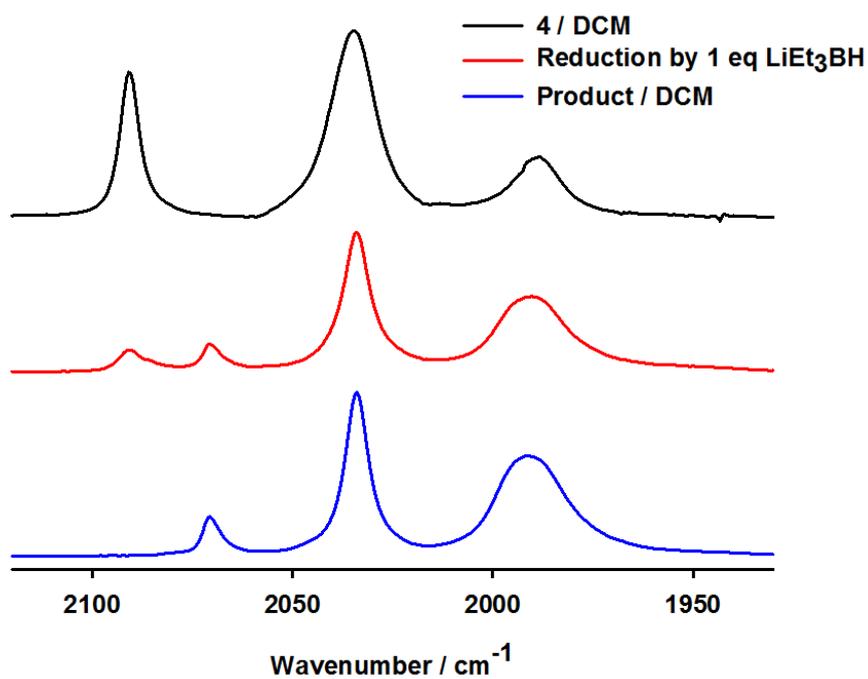


Figure S3 FTIR of the reduction of complex **4** by 1.0 equiv. LiEt_3BH in dichloromethane solution under CO atmosphere at room temperature.

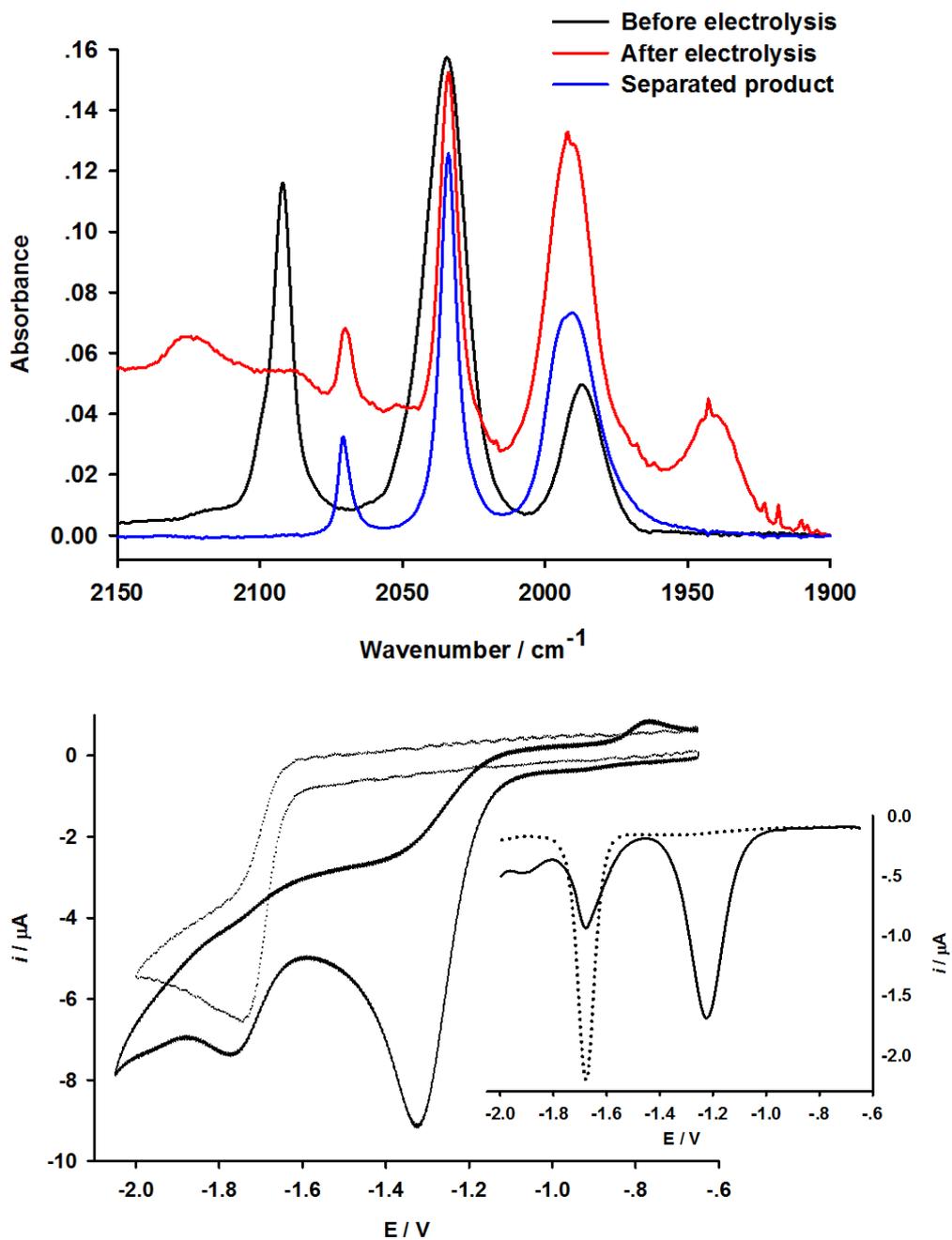


Figure S4 FTIR (top) and cyclic voltammograms (bottom) of complex **4** before / after electrolysis in 0.5 mol L⁻¹ [NBu₄]BF₄-dichloromethane solution at room temperature.

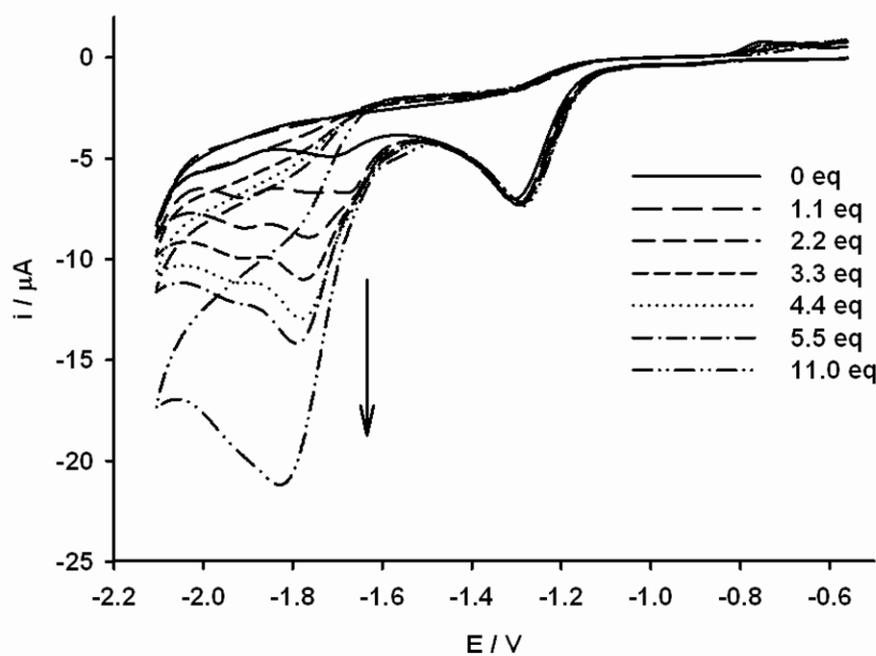
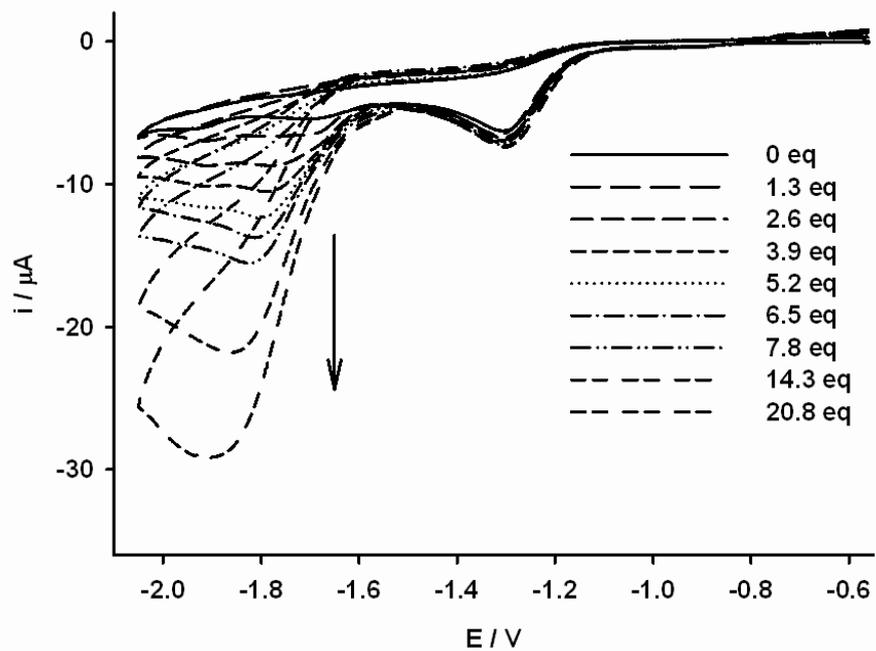


Figure S5 Cyclic voltammograms of complex **4** (top) and **6** (bottom) in the absence / presence of acetic acid in 0.5 mol L^{-1} $[\text{NBu}_4]\text{BF}_4$ -dichloromethane.

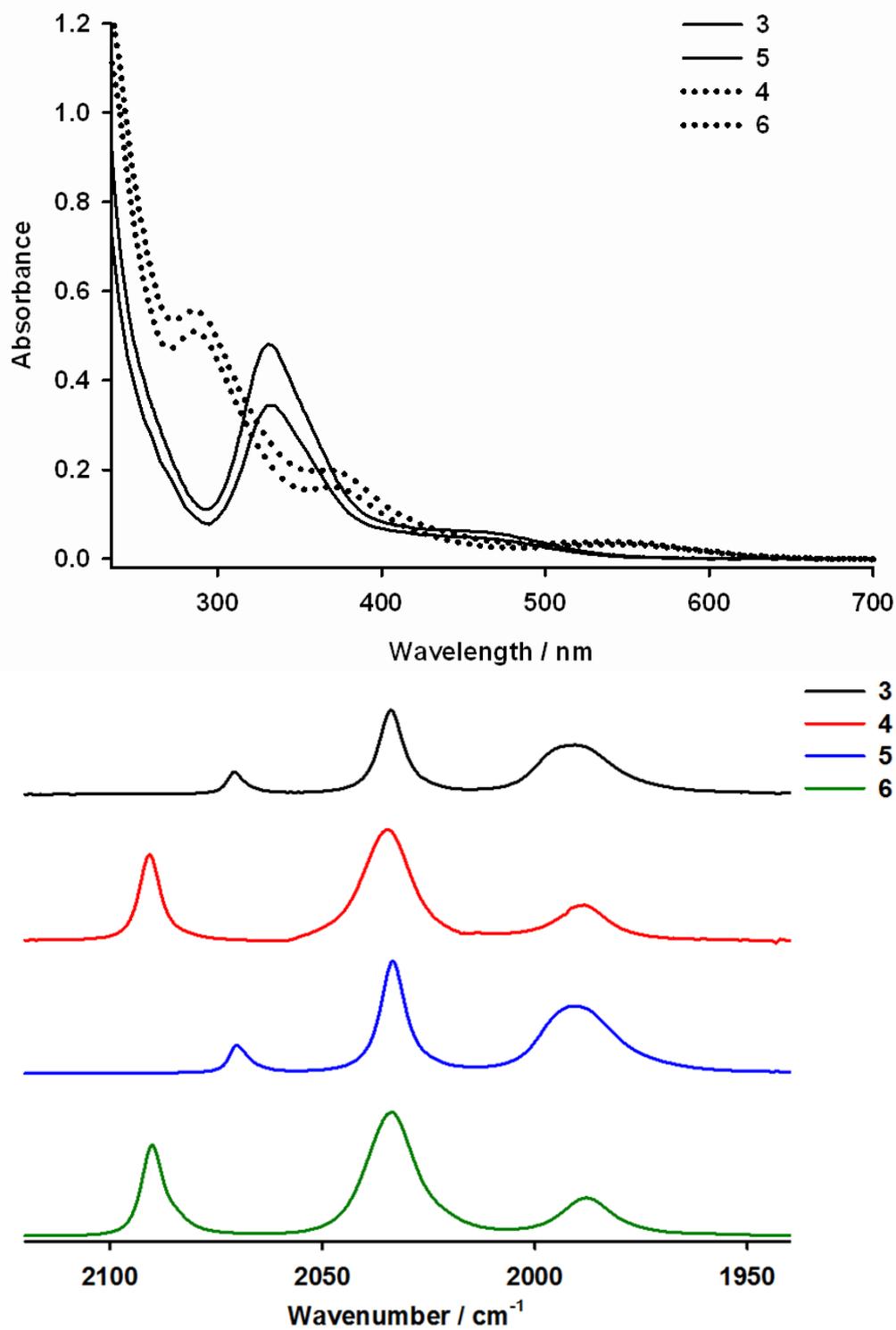


Figure S6 the electron absorption spectrum of **3**, **4**, **5** and **6** in hexanes (top) and FTIR of **3**, **4**, **5** and **6** in dichloromethane (bottom).

