Supporting Information for

Redox-Responsive Block Copolymers: Poly(vinylferrocene)-*b*-Poly(lactide) Diblock and Miktoarm Star Polymers and their Behavior in Solution

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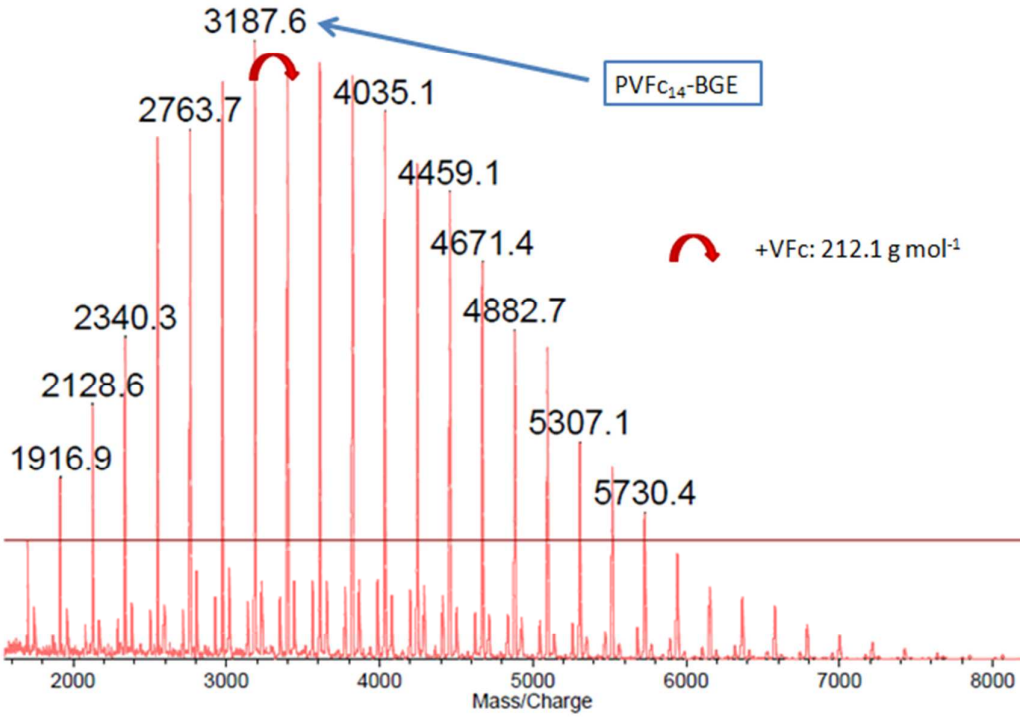

Figure S1: MALDI-ToF spectrum of $PVFc_{36}$-BGE (matrix: dithranol)

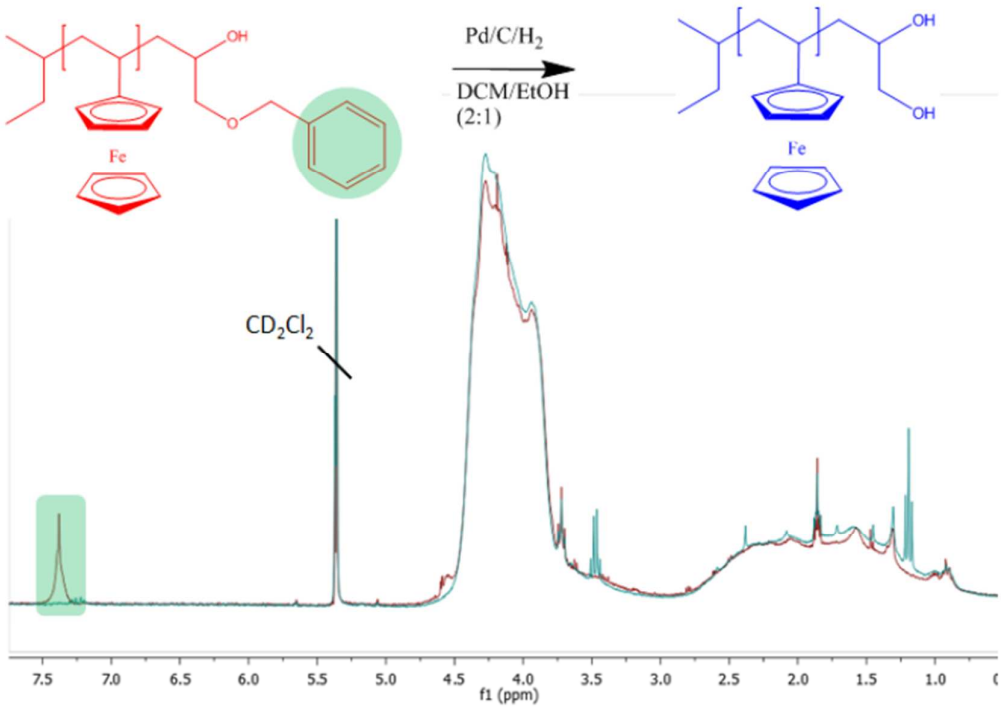

Figure S2: Overlay of two ^{1}H-NMR spectra; PVFc-BGE before hydrogenation (red) and $PVFc\text{-}OH_2$ subsequent to hydrogenation (blue)

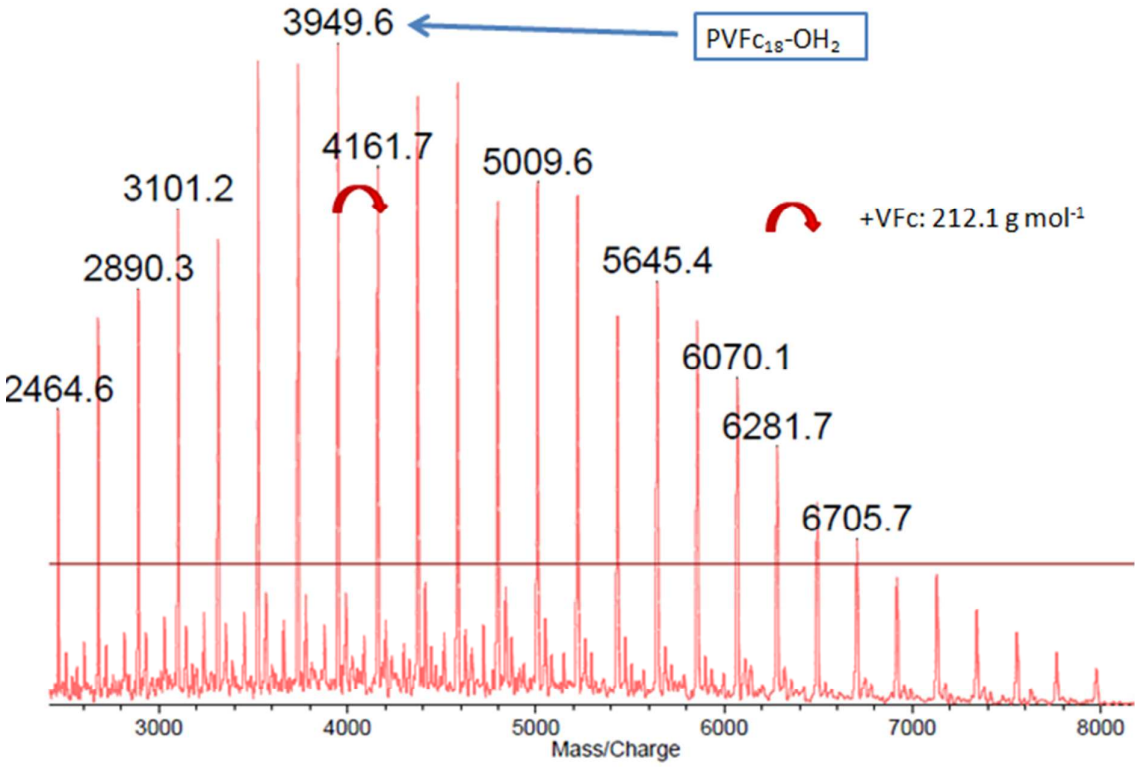

Figure S3: MALDI-ToF spectrum of $PVFc_{36}$-$(OH)_2$ (matrix: dithranol)

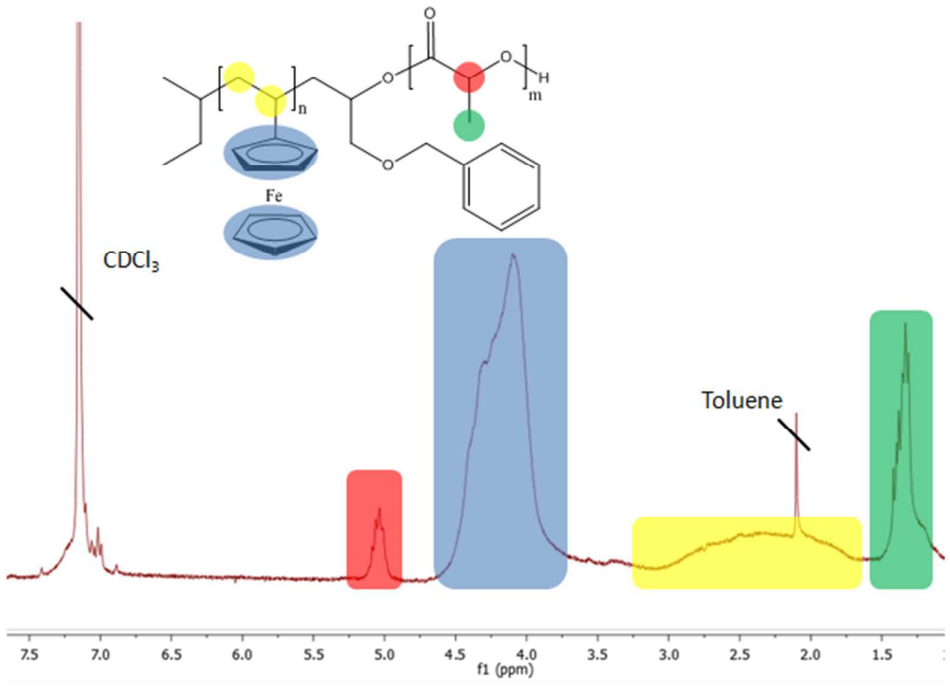

Figure S4: Exemplary ^{1}H-NMR spectrum for PVFc-PLA copolymers ($PVFc_{36}$-*b*-PLA_{15})

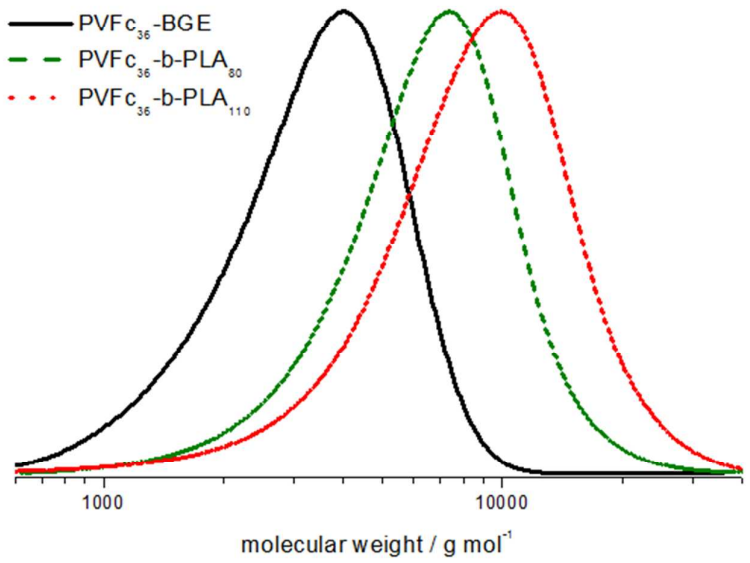

Figure S5: SEC-traces of PVFc-BGE macroinitiator and two exemplary PVFc-*b*-PLA block copolymers (DMF, UV-signal)

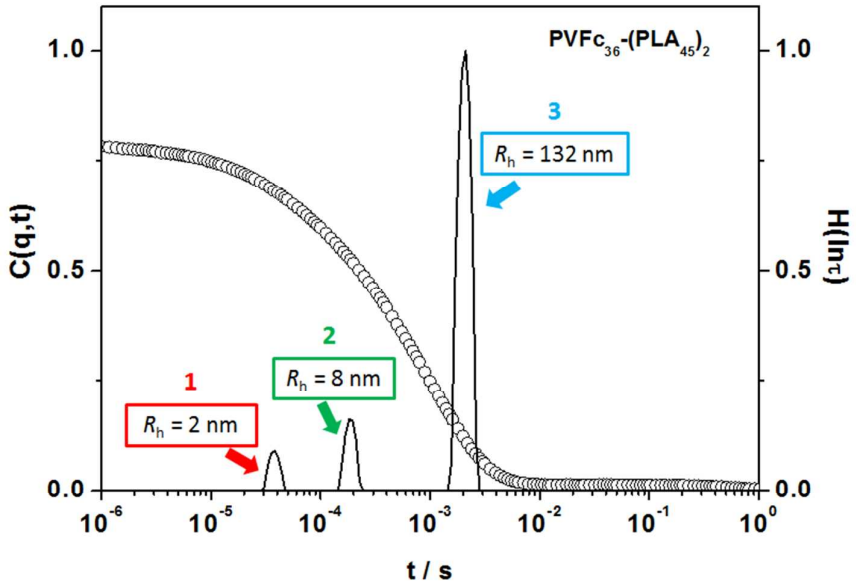

Figure S6: Relaxation function $C(q,t)$ (empty circles) for the concentration fluctuations along with the corresponding distribution of relaxation times $H(ln\tau)$ (straight line) at q = 0.0108 nm^{-1} of a $PVFc_{36}$-$(PLA_{45})_2$ miktoarm star polymer in CH_2Cl_2 with c = 0.05 g L^{-1} at T = 20 °C. Peak 1 (R_h = 2 nm) is interpreted to belong to single diffusing polymer chains whereas Peak 2 (R_h = 8 nm) probably represents micellar structures. Peak 3 (R_h = 132 nm) is the main diffusion process which is assigned to well defined superstructures.

DLS data evaluation was performed by using the the CONTIN algorithm. The CONTIN algorithm is used for the analysis of multiple decay processes and is given by

$$C(q,t) = \int_{-\infty}^{\infty} H_\tau(\ln \tau) \exp\left[-\frac{t}{\tau}\right] d(\ln \tau) \quad (1)$$

where $C(q,t)$ is the computed correlation function, τ the relaxation time and $H_\tau(\ln \tau)$ the distribution function of relaxation times.[1]

REFERENCES

(1) Winzen, S.; Bernhardt, M.; Schaeffel, D.; Koch, A.; Kappl, M.; Koynov, K.; Landfester, K.; Kroeger, A. *Soft Matter*. **2013**.