Oxidation-responsive polymer vesicles with order-disorder-order multiplephase transitions

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Fig. S1. ¹H NMR spectrum of PEG_{45} -TTC in $CDCl_3$.



Fig. S2. ¹H NMR spectrum of VBMS in CDCl₃.



Fig. S3. ¹³C NMR spectrum of VBMS in CDCl₃.



Fig. S4. ¹H NMR spectrum of the oxidation product of VBMS treated with 0.1 M H_2O_2 for 10 h. Solvent: DMSO-d₆.



Fig. S5. ¹H NMR spectrum of PEG-*b*-PVBMS oxidized by 0.1 M H₂O₂ for 10 h. Solvent: CDCl₃.



Fig. S6. DLS characterization of the PEG-*b*-PVBMS vesicles before and after being oxidized by 0.1 M H_2O_2 for 10 h.



Fig. S7. TEM image of the PEG-*b*-PVBMS vesicles oxidized by 0.1 M H_2O_2 for 10 h.



Fig. S8. Digital photographs of the PEG-*b*-PVBMS vesicle dispersion oxidized with mCPBA. [mCPBA]/[thioether] = 0, 0.25, 0.5, 0.75, 1, 1.25, 1.5, 1.75, 2.



Fig. S9. FT-IR spectra of PEG-*b*-PVBMS before and after oxidation by 1 and 2 eq. of mCPBA.



Fig. S10. XPS spectra of PEG-*b*-PVBMS before and after oxidation by 1 and 2 eq. of mCPBA.



Fig. S11. Digital photograph of TPE-tagged PEG-*b*-PVBMS in EtOH/H₂O (85/15, wt/wt) (left) and in THF (right) under UV light (λ = 365 nm).