Supporting Information

Rapid and Efficient Anionic Synthesis of Well-Defined 8-Arm Star Polymers Using OctavinylPOSS and (Polystyryl)Lithium

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Figure S1. SEC overlay of the base PS ($M_n = 4.8 \text{ kg/mol}$, PDI = 1.02, black,) and the crude product obtained from addition reaction using 8.3:1 stoichiometry of PSLi : octaisobutylPOSS after different reaction times.



Figure S2. ¹³C NMR spectra of (a) V8T8 and (b) the 8-arm star PS (8PS-POSS).



Figure S3. FT-IR spectra of (a) V8T8 and (b) the 8-arm star PS (8PS-POSS).



Figure S4. MALDI-TOF mass spectrum of base PS ($M_n = 1.2 \text{ kg/mol}$, PDI = 1.06). The inset is the corresponding overview of the spectrum.



Figure S5. Comparison between the products from (a) the conventional chlorosilane coupling reaction for star polymer synthesis and (b) the addition reaction to vinyl siloxanes used in the current paper. The former generates a neutral species while the latter leads to a charged alkyllithium adduct.