

Electronic Supplementary Material (ESI) for New Journal of Chemistry  
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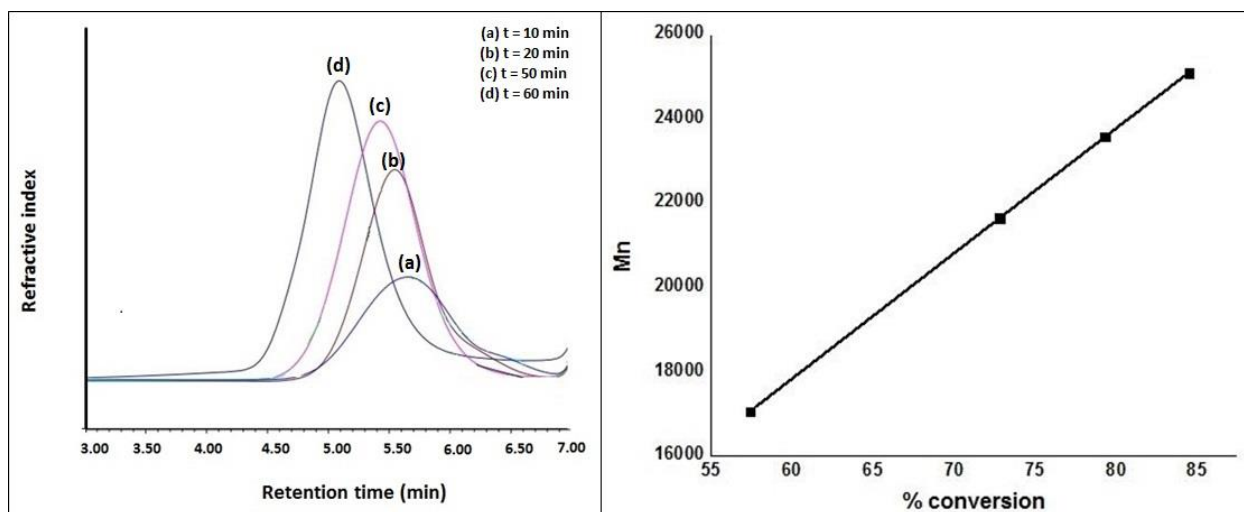
## Supporting information for

### Palladium nanoparticles anchored on polymer vesicles as Pickering interfacial catalyst for hydrolytic oxidation of organosilanes

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**Figure S1.** (a) Overlaid GPC traces during ATRP of iBMA as a function of time (b) plot of molecular weight ( $M_n$ ) vs % conversion of the monomer.

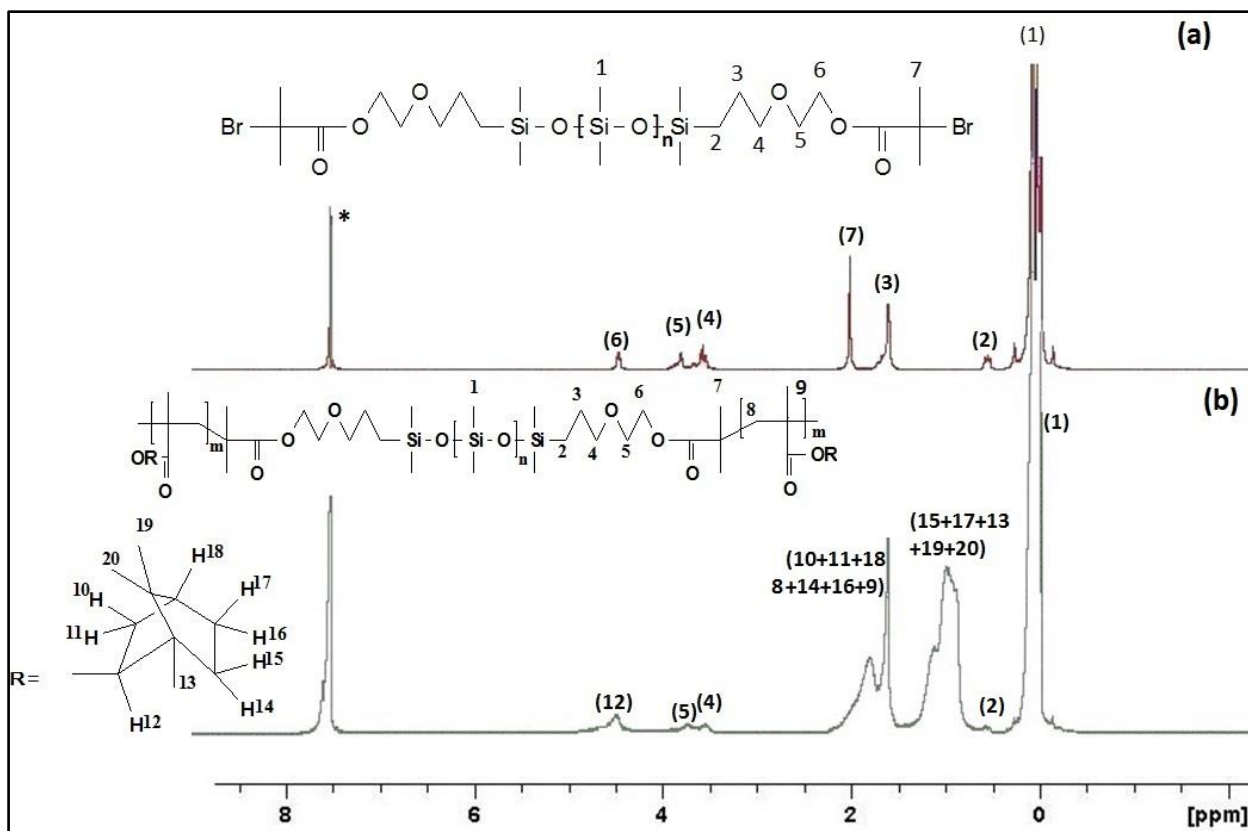
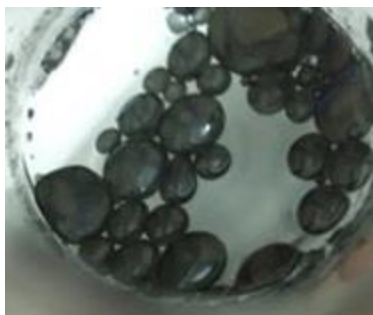
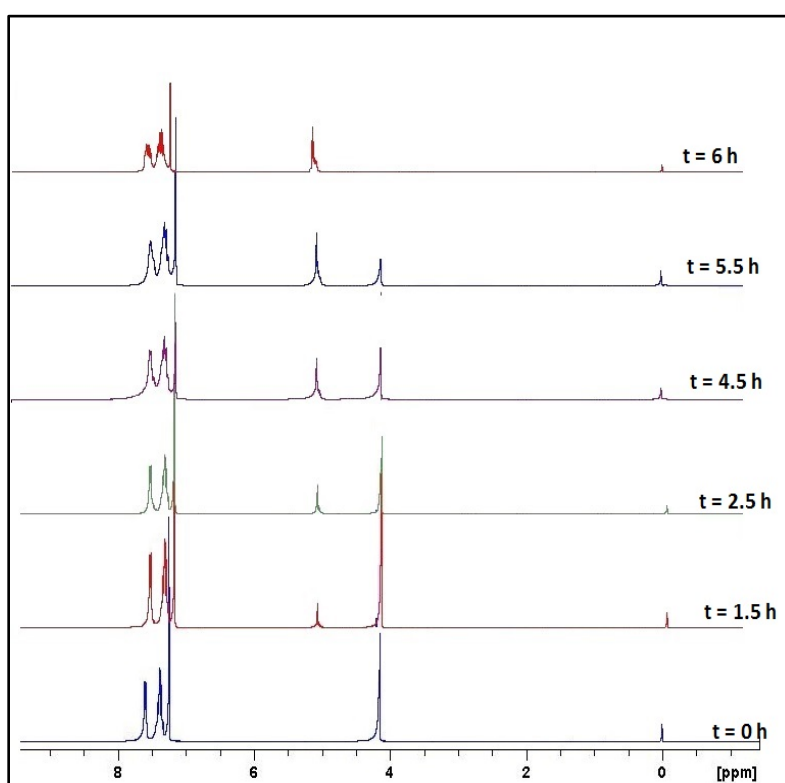


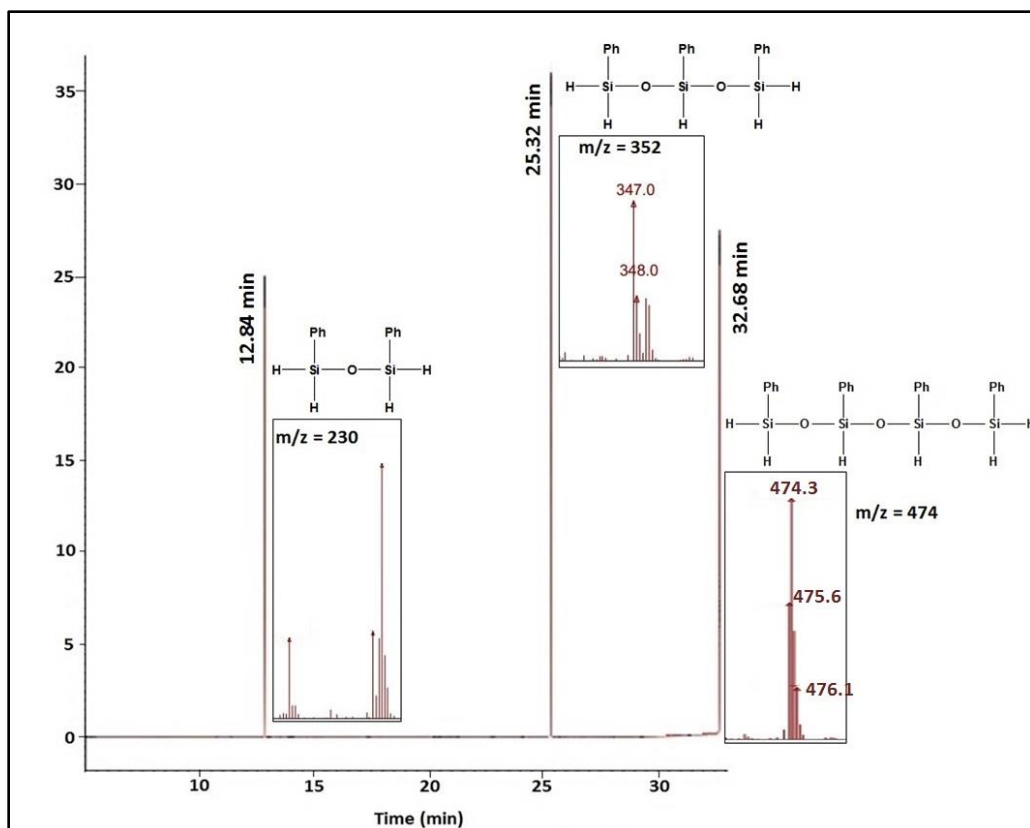
Figure S2.  $^1\text{H}$  NMR spectrum of (a) macroinitiator and (b) polymer 1.



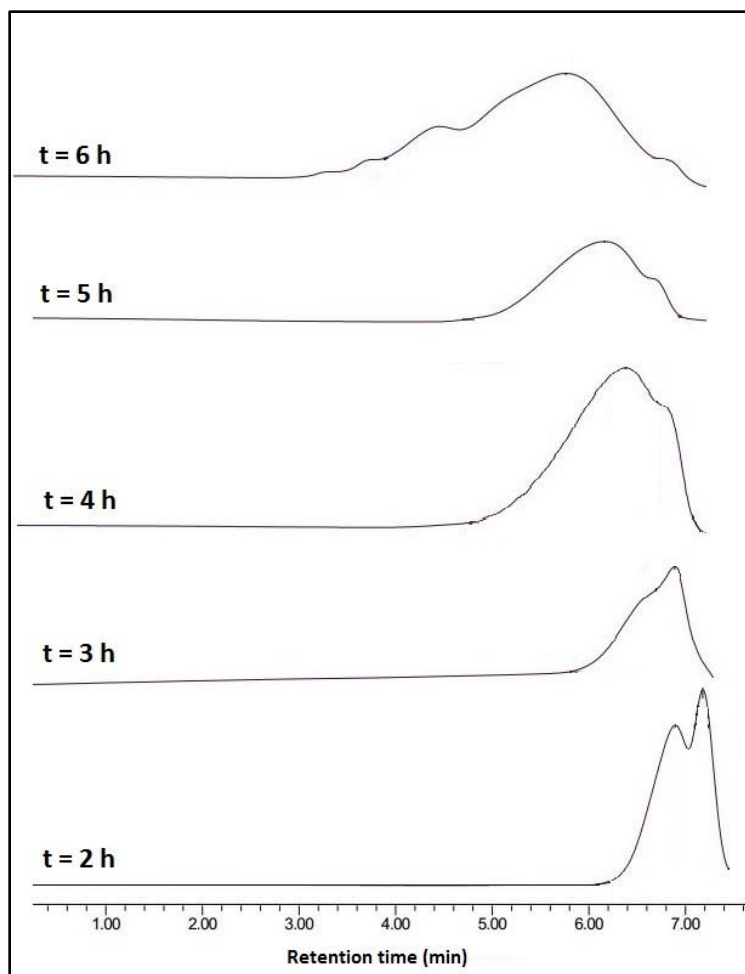
**Figure S3.** PdNP- stabilized Pickering water droplets dispersed in chloroform.



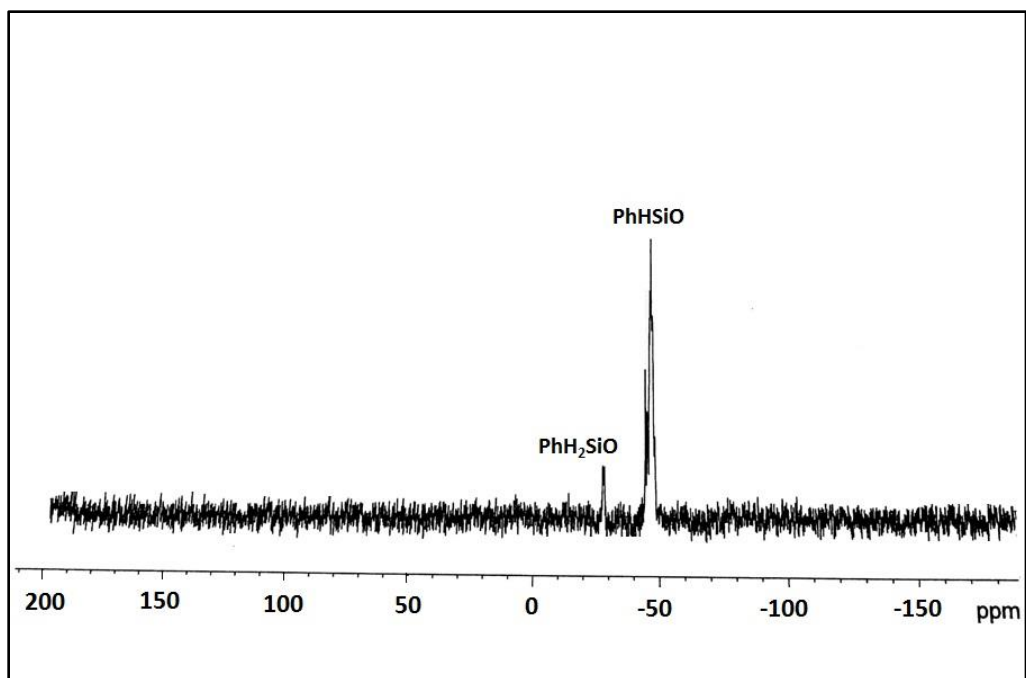
**Fig. S4.**  $^1\text{H}$  NMR spectra at different time intervals during hydrolytic oxidation of phenylsilane.



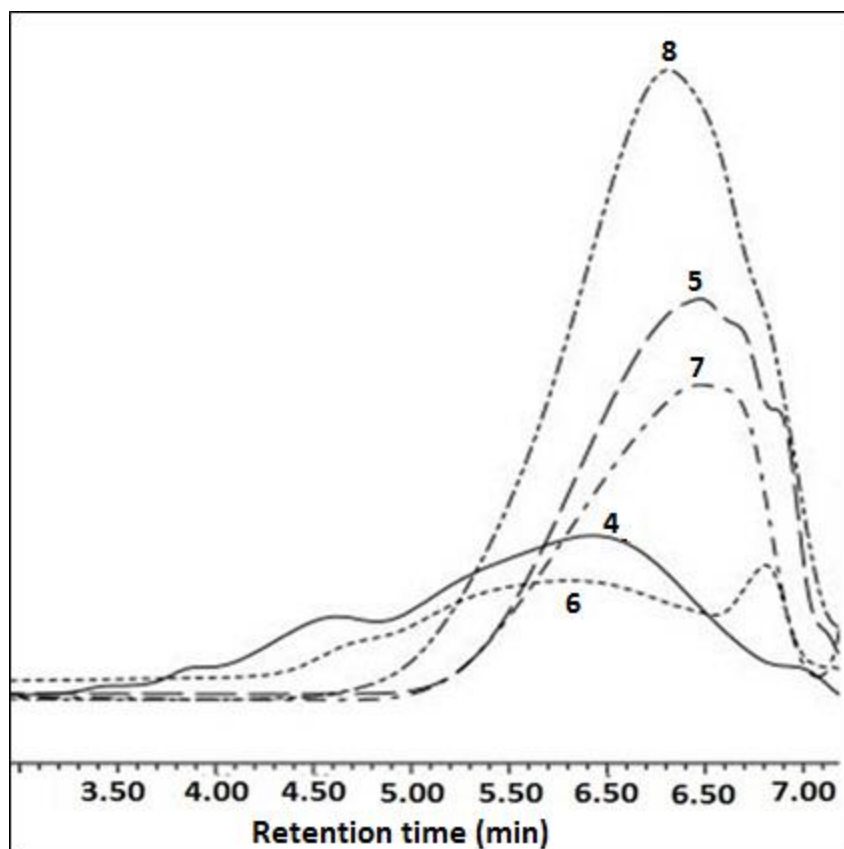
**Figure S5.** GCMS spectrum of the intermediates formed during hydrolytic oxidation of phenylsilane.



**Figure S6.** GPC profiles obtained at different stages of hydrolytic oxidation of phenylsilane.



**Figure S7.**  $^{29}\text{Si}\{^1\text{H}\}$  NMR spectrum of poly(hydrophenylsiloxane).



**Figure S8.** GPC profiles of polymers 4-8

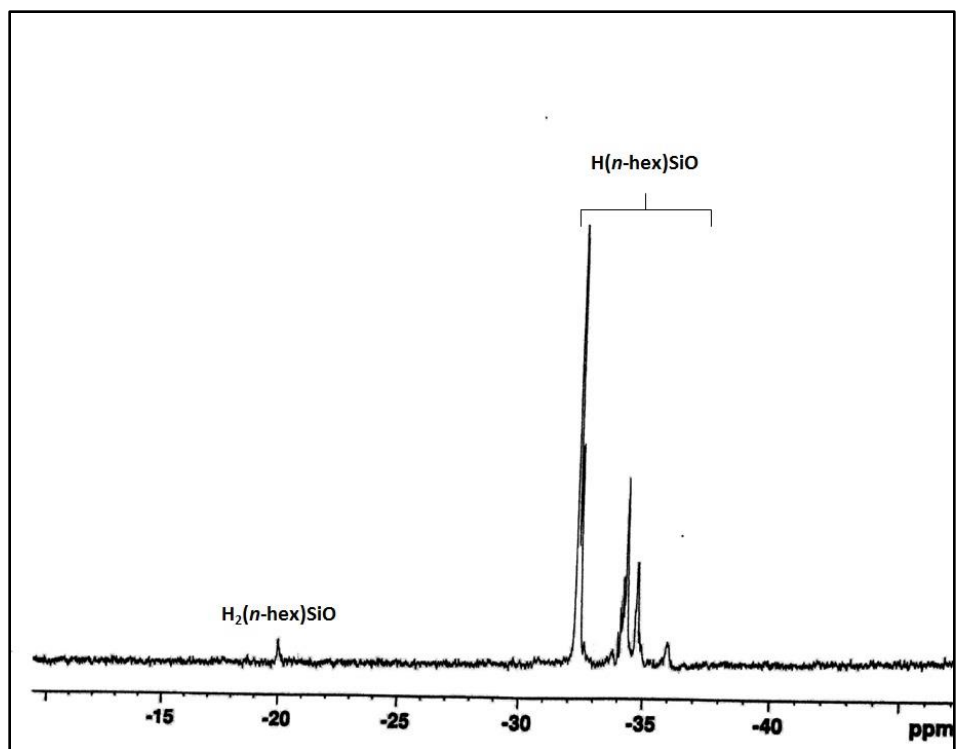


Figure S9.  $^{29}\text{Si}\{^1\text{H}\}$  NMR spectrum of  $\text{H}_2(\text{n-hex})\text{SiO}\{\text{H}(\text{n-hex})\text{Si}\}_n\text{OSi}(\text{n-hex})\text{H}_2$ .

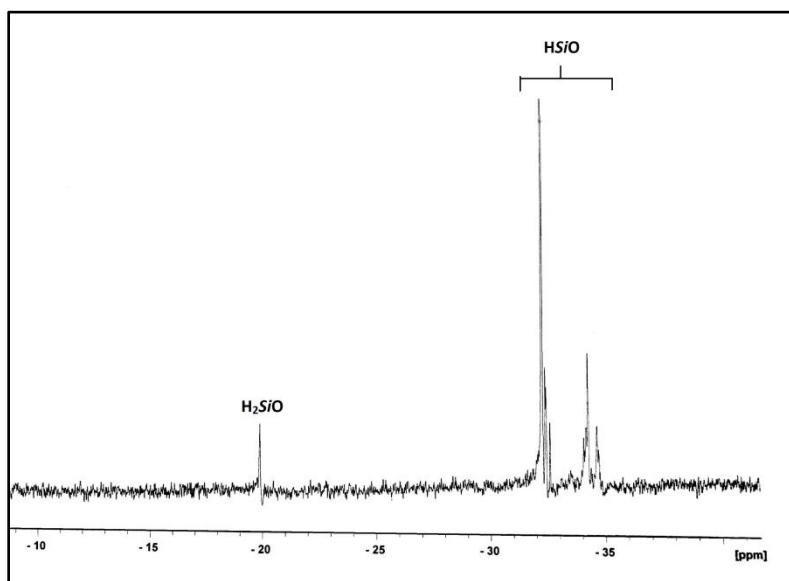
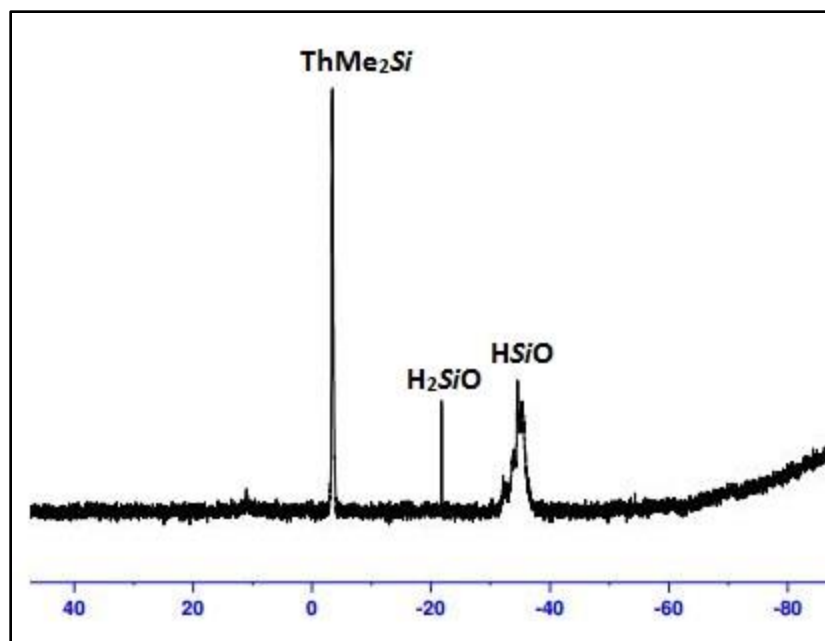


Figure S10.  $^{29}\text{Si}\{^1\text{H}\}$  NMR spectrum of  $\text{H}_2(\text{n-Oct})\text{SiO}\{\text{H}(\text{n-Oct})\text{Si}\}_n\text{OSi}(\text{n-Oct})\text{H}_2$ .





**Figure S11.**  $^{29}\text{Si}\{^1\text{H}\}$  NMR spectrum of  $\text{H}_2\text{RSiO}\{\text{HRSi}\}_n\text{OSiRH}_2$  ( $\text{R} = \text{ThMe}_2\text{SiCH}_2\text{CH}_2$ ).

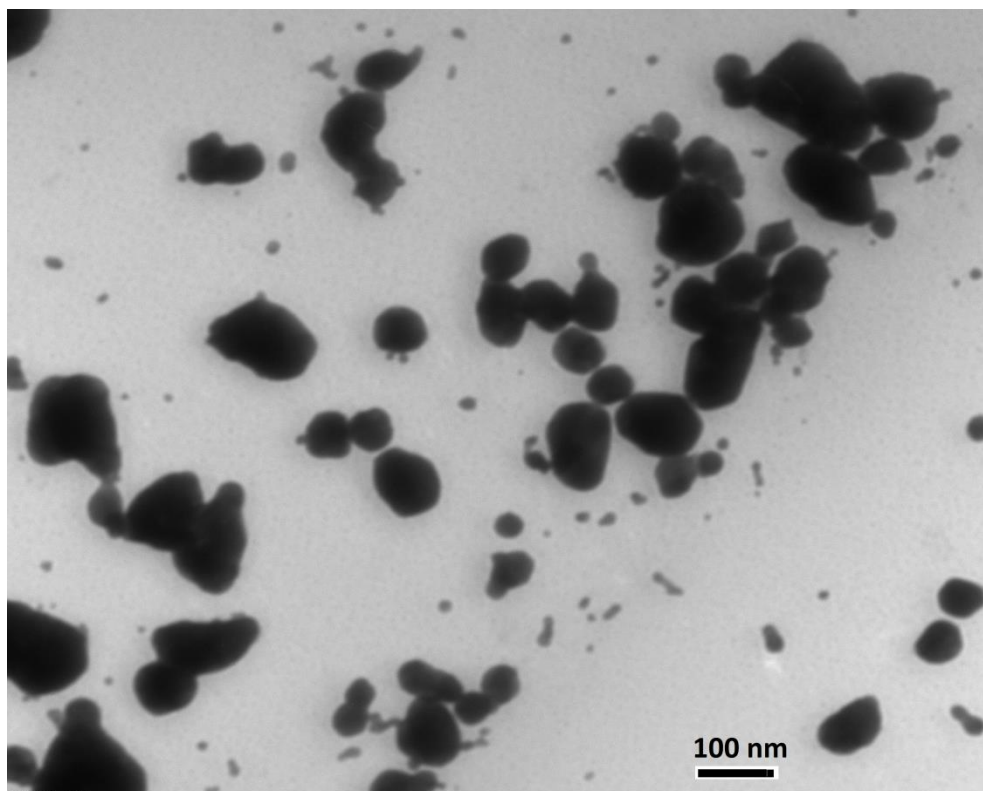


Figure S12. HRTEM image of **Au-2-PIC** after the completion of the reaction.

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