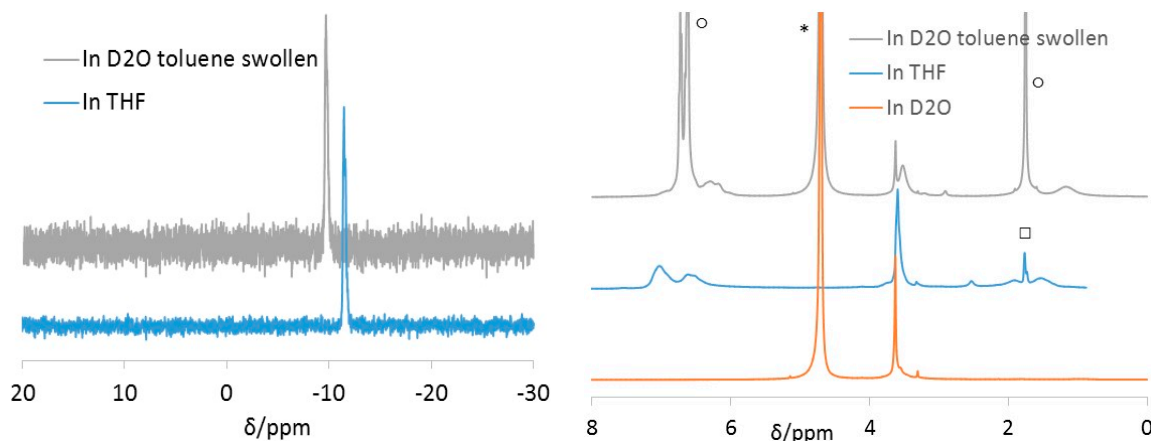
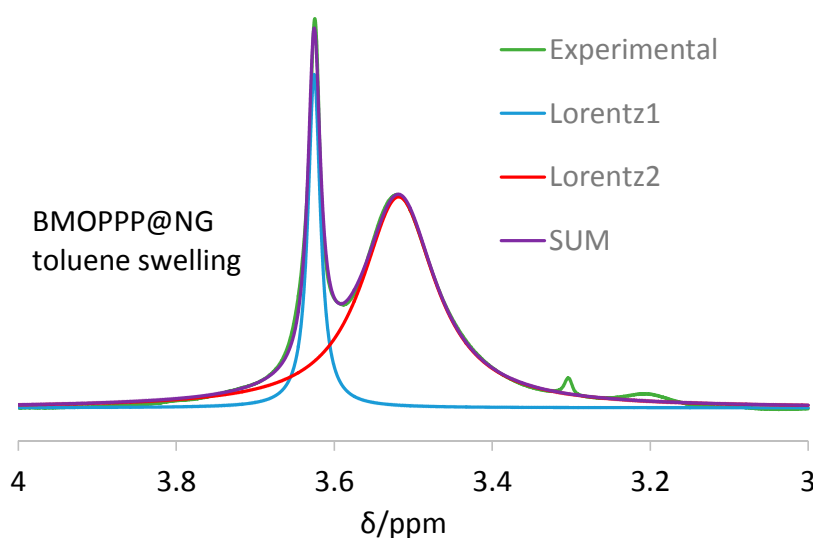


# Supplementary Materials: Coordination Chemistry Inside Polymeric Nanoreactors: Metal Migration and Cross-Exchange in Amphiphilic Core-Shell Polymer Latexes

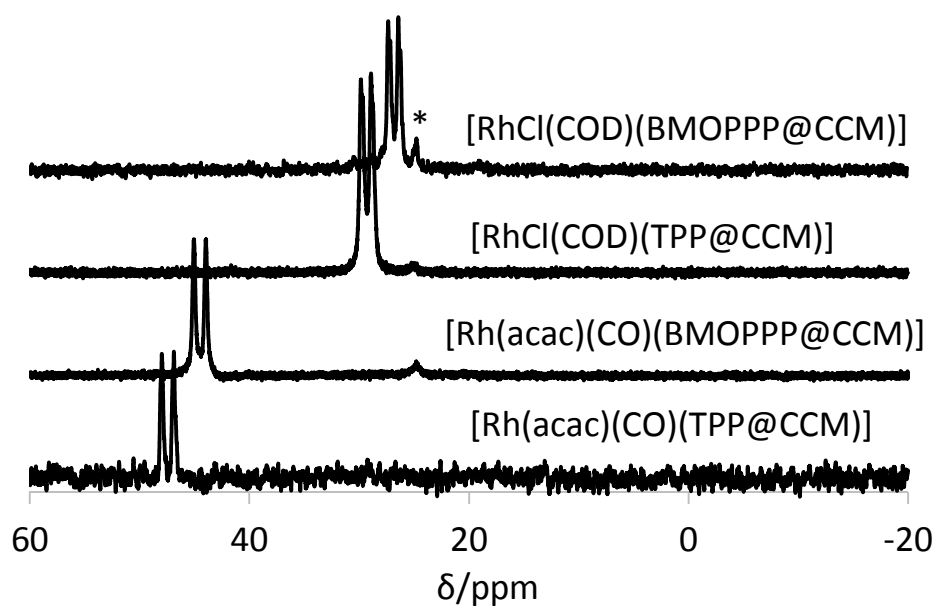
Si Chen, Eric Manoury, Florence Gayet and Rinaldo Poli



**Figure S1.**  $^1\text{H}$ -NMR (left) and  $^{31}\text{P}$ -NMR (right) spectra of the **BMOPPP@NG** latex. The spectra in  $\text{D}_2\text{O}$  were recorded directly after addition of  $\text{D}_2\text{O}$  for the instrument lock to the latex (either toluene-swollen or not). The starred resonance at  $\delta$  4.7 belongs to water. Those at  $\delta$  3.63 (strong) and 3.30 (weak) belong to the  $\text{CH}_2$  and  $\text{CH}_3$  protons, respectively, of the  $\text{PEOMA}-(\text{OCH}_2\text{CH}_2)_{19}-\text{OCH}_3$  protons. The spectra in  $\text{THF-D}_8$  were taken after drying the latex to a solid residue and dissolution in the NMR solvent. The resonance marked with a square at  $\delta$  1.76 belongs to the solvent, with the second one at ca.  $\delta$  3.6 being masked by the PEOMA proton resonance. The resonances marked with a circle belong to the toluene molecules hosted in the swollen polymer core.



**Figure S2.** Excerpt of the  $^1\text{H}$ -NMR spectra of **BMOPPP@NG** after swelling with toluene in the region of the methylene and methoxy PEOMA proton resonances, and deconvolution of the  $\text{CH}_2$  resonance.



**Figure S3.**  $^{31}\text{P}\{^1\text{H}\}$  NMR spectra of the TPP@CCM and BMOPPP@CCM latexes in  $\text{D}_2\text{O}$  after swelling the polymer core with toluene and 100% loading with  $[\text{Rh}(\text{acac})(\text{CO})_2]$  or  $[\text{RhCl}(\text{COD})_2]$ . The starred resonance corresponds to a small amount of oxidized phosphine.



© 2016 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons by Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).