

Supplemental

Macrocellular Pd@Ionic liquid@Organo-Si(HIPE) Heterogeneous Catalysts and Their Use for Heck Coupling Reactions

By

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Table S1. Average estimated SILPs thickness onto the surface of the macropores of the hybrid foams determined combining nitrogen sorption and mercury porosimetry data together with calculated stoichiometries.

Entry	Hybrid foams Pd(OAc) ₂ @Organo-Si(HIPE)	SILPs thickness estimated (nm)
1	Pd(OAc) ₂ @[Bmim]NTf ₂ @ <i>g-imidazole</i> -Si(HIPE)	11.8
2	Pd(OAc) ₂ @[Bmim]NTf ₂ @Si(HIPE)	8.0
3	Pd(OAc) ₂ @[Bmim]BF ₄ @ <i>g-imidazole</i> -Si(HIPE)	5.8
4	Pd(OAc) ₂ @[Bmim]BF ₄ @Si(HIPE)	7.7
5	Pd(OAc) ₂ @[Bmim]PF ₆ @Si(HIPE)	7.7

Table S2. Nuclear Overhauser Effect (NOE) enhancement that can be observed on the ¹³C NMR spectra. * “imi” related to the imidazolium ring, “but” related to the butyl chain and methyl to the methyl “arm”.

Carbon*	imiC ²	imiC ⁴	imiC ⁵	q CF ₃	butC ⁶	methyl	butC ⁷	butC ⁸	butC ⁹
pic (ppm)	136.4	123.9	122.6	118.0	50.0	36.0	32.1	19.4	12.9
[Bmim]NTf ₂ @Si(HIPE)	1.21	1.38	1.26	0.02	1.33	1.32	1.60	1.48	1.65
Pd ⁰ @[Bmim]NTf ₂ @Si(HIPE)	1.18	1.33	1.17	0.06	1.36	1.19	1.58	1.58	1.66
diff Pd⁰	-0.03	-0.05	-0.09	0.04	0.03	-0.13	-0.02	0.10	0.01
Pd ⁰ @[Bmim]NTf ₂ @Si(HIPE)	1.18	1.33	1.17	0.06	1.36	1.19	1.58	1.58	1.66
Pd ⁰ @[Bmim]NTf ₂ @ <i>g-imidazole</i> -Si(HIPE)	1.25	1.30	1.11	0.01	1.28	1.35	1.64	1.57	1.53
diff grafting	0.07	-0.03	-0.06	-0.05	-0.08	0.16	0.06	-0.01	-0.13