Single step synthesis of metallic nanoparticles using dihydroxyl functionalized ionic liquids as reductive agent

Walid Darwich,^{*a*} Christian Gedig,^{*b*} Hassan Srour,^{*a*} Catherine C. Santini^{*a*}* Martin H. G. Prechtl,^{*b*}*

Received (in XXX, XXX) 25th July 2013, Accepted 19th August 2013 DOI: 10.1039/b000000x



Figure S1: FT-IR spectra of suspension of CuNPs in C1C1(EG)ImNTf2 (a) and pure C1C1(EG)ImNTf2 (b).



Figure S2 ; Gas Chromatogram of the Ni NPs suspension in $C_1C_1(EG)ImNTf_2$



Figure S3: TEM images and particle size distribution of the synthesized ruthenium nanoparticles.



Scheme S1: Proposed mechanism of the formation RuNPs in imidazolium NTf₂ ILs as reported.¹



Figure S4: FT-IR spectra of suspension of RuNPs in C1C1(EG)ImNTf2 (a) and pure C1C1(EG)ImNTf2 (b).



Figure S5 Gas chromatogram of the suspension of RuNPs in $C_1C_1(EG)ImNTf_2$

1. M. H. G. Prechtl, P. S. Campbell, J. D. Scholten, G. B. Fraser, G. Machado, C. C. Santini, J. Dupont and Y. Chauvin, *Nanoscale*, 2010, **2**, 2601-2606.

12