

Support information for :

Metal Nanoparticle/Ionic Liquid/Cellulose: New Catalytically Active Membrane Materials for Hydrogenation Reactions

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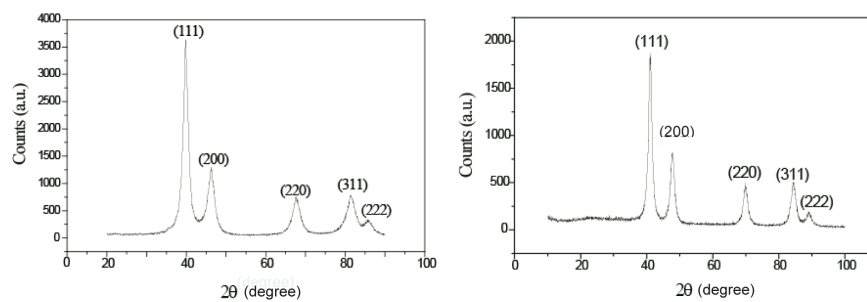


Figure. S1. XRD analysis of Pt(0) (left) and Rh(0) (right) of isolated nanoparticles.

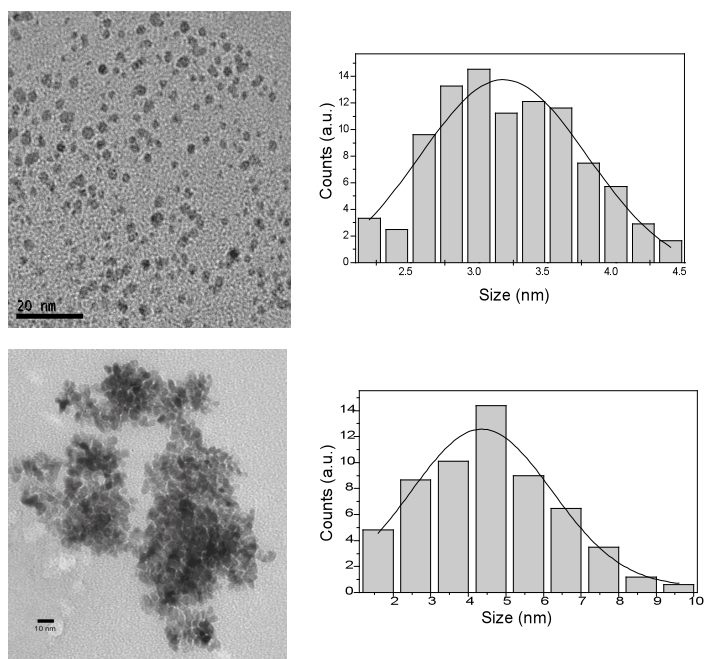


Figure. S2. TEM micrograph of Pt(0) (top) and Rh(0) (bottom) nanoparticles in the IL (left) and histogram (right) illustrating the particle size distribution.

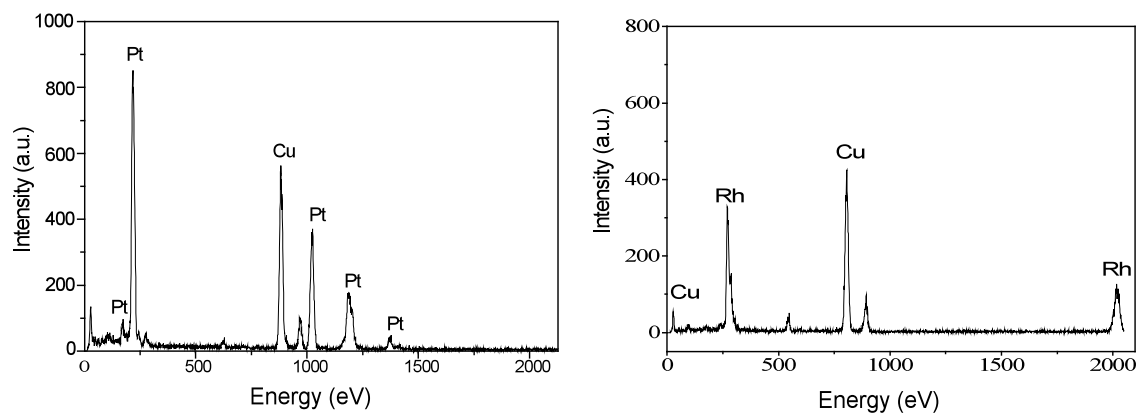


Figure. S3. EDS of Pt(0) (right) and Rh(0) nanoparticles.

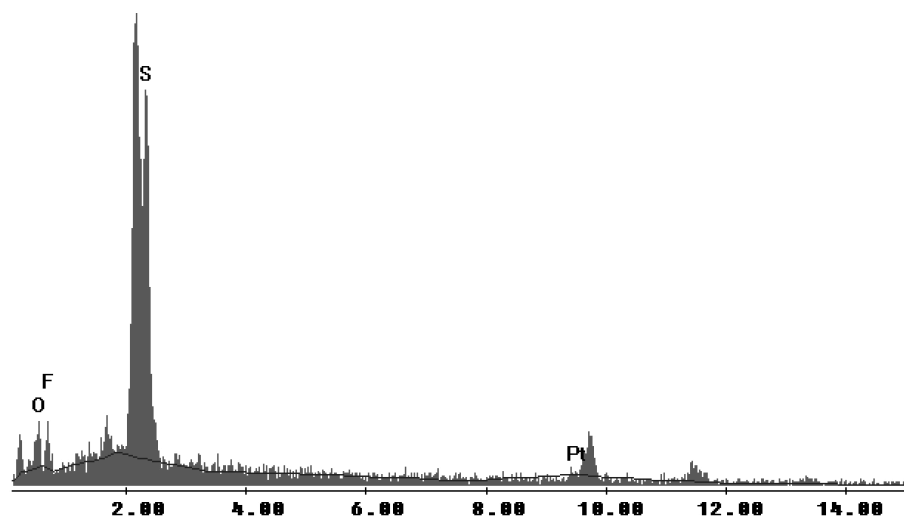


Figure. S4. EDS of of CA/IL/Pt(0) membrane with 1.0 g of ionic liquid BMI.N(Tf)₂.

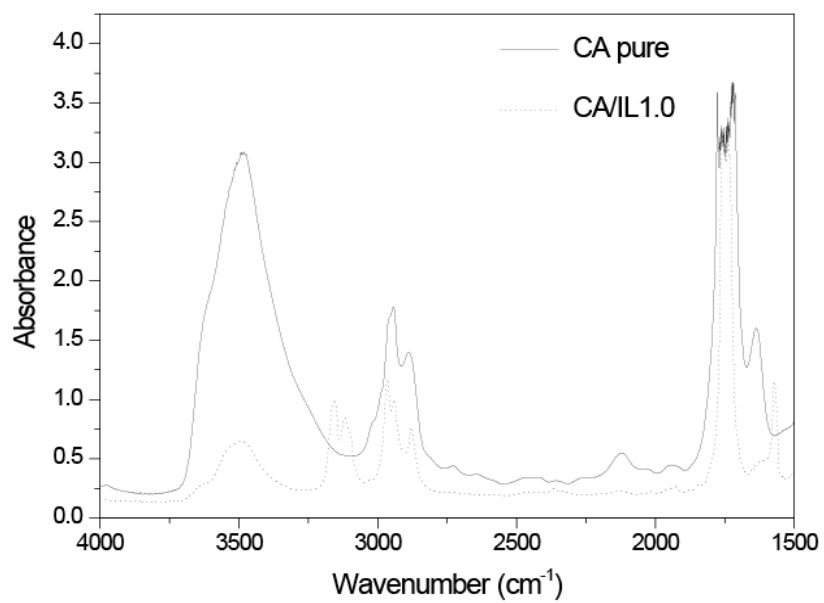


Figure. S5. Infrared spectra of the pure cellulose acetate and membrane CA/IL 1.0g of ionic liquid BMI.N(Tf)₂.

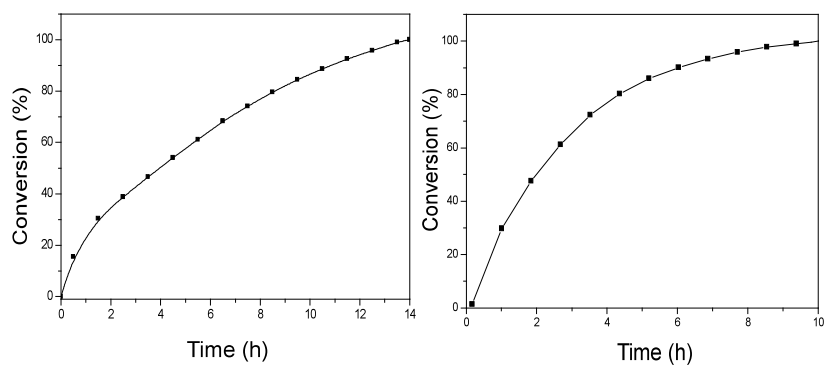


Figure. S6. Hydrogenation of cyclohexene by CA/IL/Rh(0) (left) and CA/IL/Pt(0) (right) 4 atm H₂, 75 °C.

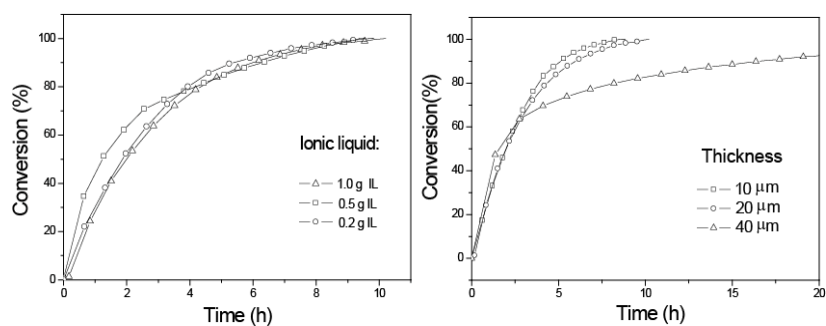


Figure. S7. Hydrogenation of cyclohexene with CA/IL/Pt(0) using different concentration of ionic liquid BMI.N(Tf)_2^- (left) and using different membrane thickness (right), with 4 atm H_2 , 75 °C.