Efficient Heterogeneous Polymer Ionic Liquid Catalyst for the Synthesis of Ethylene Carbonate via the Coupling of Carbon Dioxide with Ethylene Oxide

Bo Zhang,^a Lei Zhang,^a Qinghai Wu,^b Quanxi Wang,^b Baoan Song,^a Wenjun Wu,^c

Bin Lu^b and Tianrui Ren*^b

^a State Key Laboratory Breeding Base of Green Pesticide and Agricultural Bioengineering/
Key Laboratory of Green Pesticide and Agricultural Bioengineering, Ministry of Education,
Guizhou University, Guiyang, 550025, P. R. China

^bThe Key Laboratory of Resource Chemistry of Ministry of Education, The development
centre of plant germplasm resources, College of Life and Environmental science,
Shanghai Normal University, 100 Guilin Road, Shanghai, 200234, P. R. China

^cSchool of Chemistry and Molecular Engineering, East China University of Science and Technology, 130 Meilong Road, Shanghai, 200237, P. R. China

Supporting information

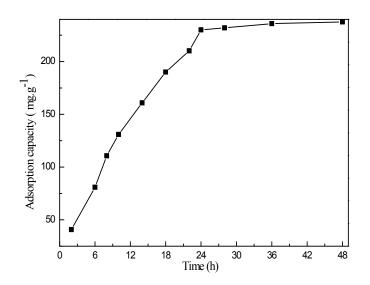


Fig. S1 Equilibrium adsorption of functionalize PIL on molecular sieve

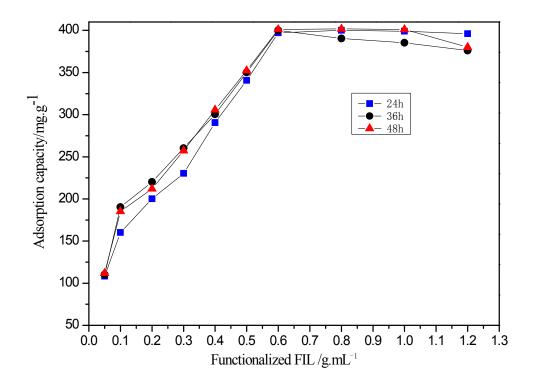


Fig. S2 Adsorption isotherms of functionalized PIL on molecular sieve at 303 K

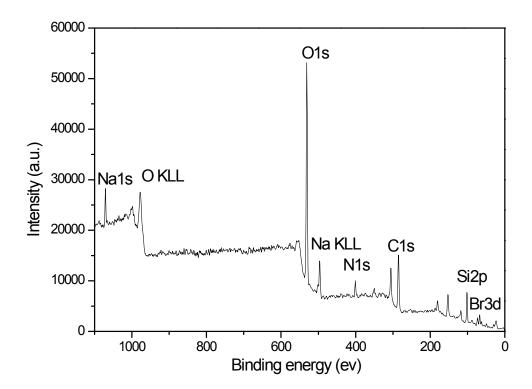


Fig. S3 The wide survey XPS spectrum of the supported PIL catalyst