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### ACCEPTED MANUSCRIPT

# Fabrication of propylsulfonic acid functionalized SiO<sub>2</sub> core/PMO shell structured PrSO<sub>3</sub>H-SiO<sub>2</sub>@Si(R)Si nanospheres for the effective conversion of D-fructose into ethyl levulinate

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#### **Graphic Abstract**



Propylsulfonic acid functionalized SiO<sub>2</sub> core/alkyl- or phenyl-bridged organosilica shell structured PrSO<sub>3</sub>H-SiO<sub>2</sub>@Si(R)Si (R =  $-C_2H_4-$ ,  $-C_6H_4-$  or  $-C_6H_4-C_6H_4-$ ) nanospheres exhibit excellent catalytic activity and stability for the ethanolysis of D-fructose to ethyl levulinate. Download English Version:

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