

Supplementary Materials

# Rh Particles Supported on Sulfated g-C<sub>3</sub>N<sub>4</sub>: A Highly Efficient and Recyclable Heterogeneous Catalyst for Alkene Hydroformylation

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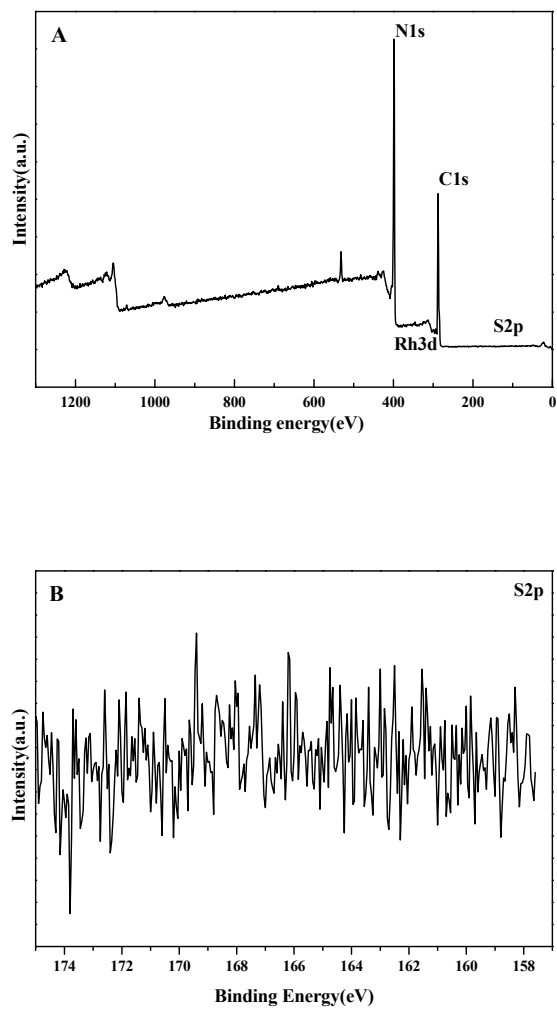
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**S.1 XPS spectra of survey and S 2p core levels for Rh/3%S-g-C<sub>3</sub>N<sub>4</sub>****Figure S-1.** XPS spectra of survey (A) and S 2p core levels (B) for Rh/3%S-g-C<sub>3</sub>N<sub>4</sub>.

## S.2 Effect of reaction medium on Rh/3%S-g-C<sub>3</sub>N<sub>4</sub> catalyzed hydroformylation

**Table S-1.** Effect of reaction medium on Rh/3%S-g-C<sub>3</sub>N<sub>4</sub> catalyzed hydroformylation<sup>a</sup>.

Entry	Solvent	Conversion (%)	TOF (h <sup>-1</sup> ) <sup>b</sup>	Selectivity (%)	
				Aldehydes	B:L <sup>c</sup>
1	Toluene	99.9	9000	100	53:47
2	n-Heptane	44.2	4000	100	56:44
3	Alcohol	27.6	2500	100	56:44
4	DMF	0.1	9	100	48:52

<sup>a</sup> Reaction conditions: Rh/3%S-g-C<sub>3</sub>N<sub>4</sub>: 0.02 g, solvent: 20 mL, styrene: 1.5 mL, reaction time: 3 h, Temp.: 100 °C, syngas(CO/H<sub>2</sub> =1): 6.0 MPa. <sup>b</sup> TOF = number of moles of product formed/(number of moles of Rh × h). <sup>c</sup> B : L = 2-phenylpropanal : 3-phenylpropanal.