

Supplementary Information to
One-step hydrogenolysis of glycerol to biopropanols over
Pt-H₄SiW₁₂O₄₀/ZrO₂ catalysts

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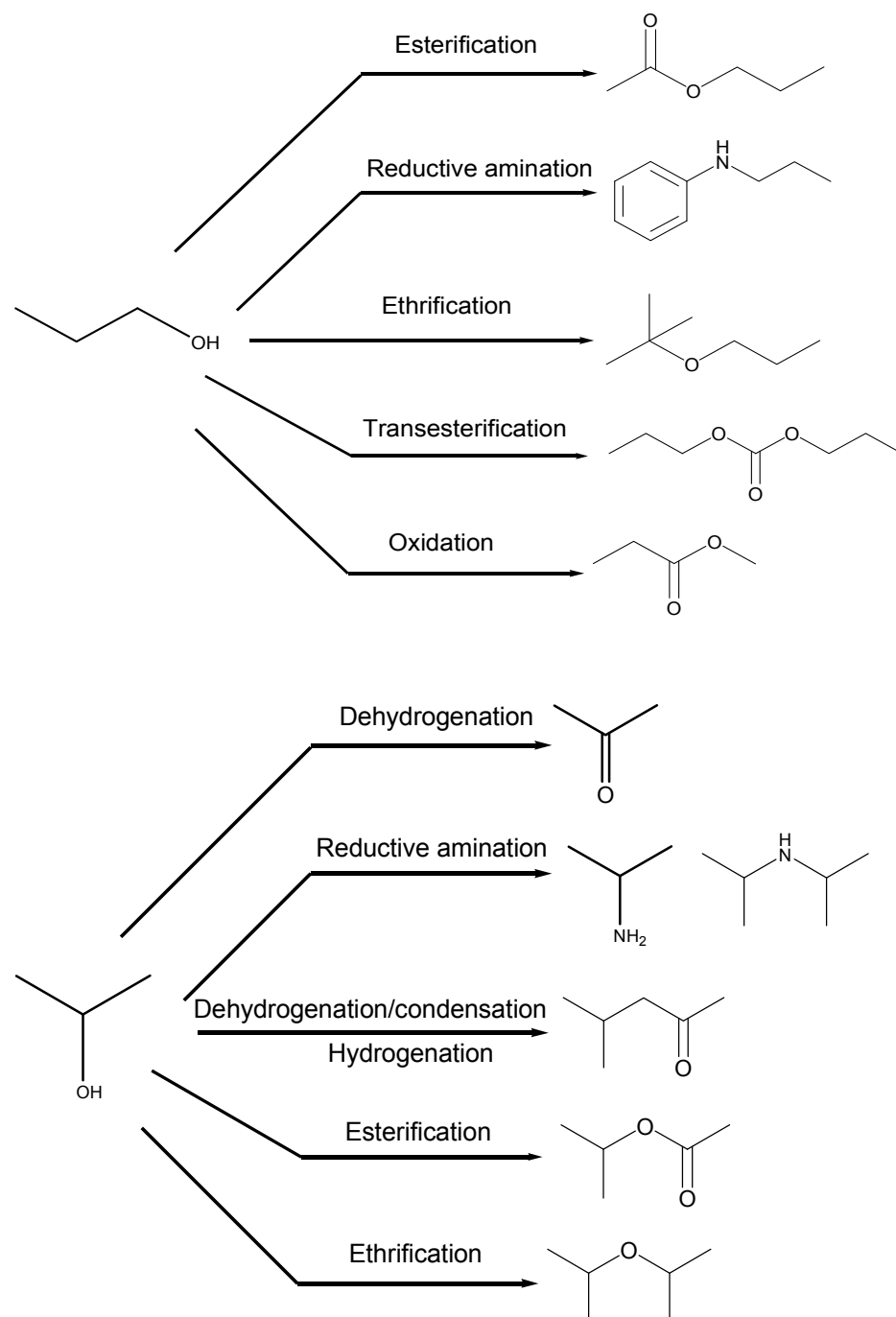
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This supporting information includes

Scheme S1. Processes of catalytic conversion of 1-PO and 2-PO into valuable chemicals.

Fig. S1. Effect of hydrogen pressure on glycerol hydrogenolysis over Pt-HSiW/ZrO₂.

Fig. S2. Effect of glycerol concentration on glycerol hydrogenolysis over Pt-HSiW/ZrO₂.



Scheme S1. Processes of catalytic conversion of 1-PO and 2-PO into valuable chemicals.

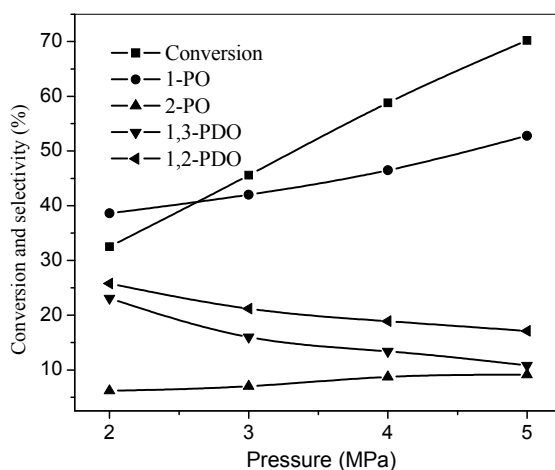


Fig. S1. Effect of hydrogen pressure on glycerol hydrogenolysis over Pt-HSiW/ZrO₂. Reaction conditions: 200 °C, 10 wt.% glycerol aqueous solution, H₂/glycerol = 137:1 (molar ratio), WHSV = 0.06 h⁻¹.

In order to exhibit kinetic study, the weight hourly space velocity (WHSV) was increased to 0.06 h⁻¹ to control glycerol conversion in the range of from 20% to 80%.

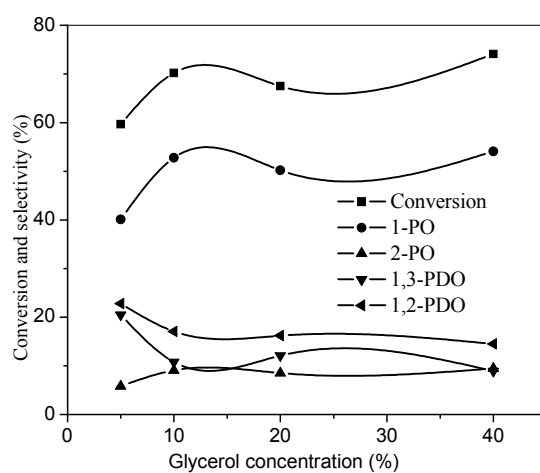


Fig. S2. Effect of glycerol concentration on glycerol hydrogenolysis over Pt-HSiW/ZrO₂. Reaction conditions: 200 °C, 5.0 MPa, H₂/glycerol = 137:1 (molar ratio), WHSV = 0.06 h⁻¹.