

**Steam reforming of ethanol to H₂ over Rh/Y₂O₃: Crucial roles of
Y₂O₃ oxidizing ability, space velocity, and H₂/C**

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Supplementary Data

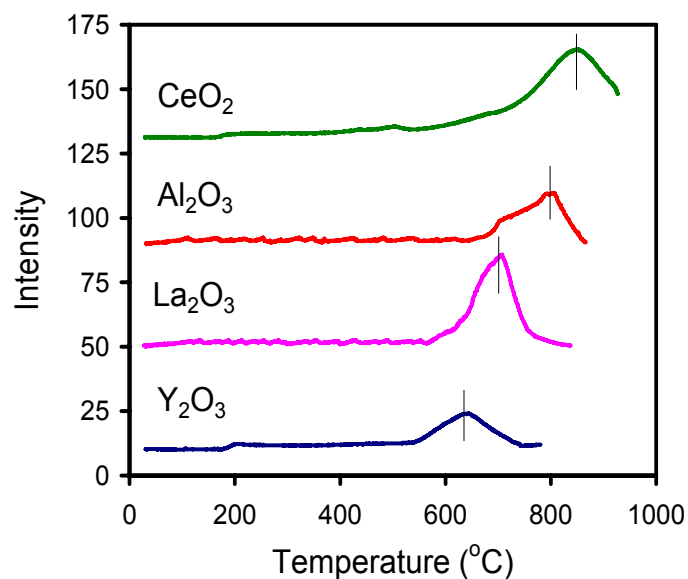


Fig. A TPR-H₂ analysis of four oxide catalyst supports

Fig. A shows that CeO₂ or Al₂O₃ was reduced at ~845°C or ~795°C respectively, while Y₂O₃ or La₂O₃ was respectively reduced at ~650°C or ~695°C. Since easier reducibility of catalyst support indicates that the hydrogen from ethanol is more easily oxidised to form hydrogen gas, the TPR results show that Y₂O₃ is easily reduced and has stronger oxidizing ability.