

Supplementary Information

CO₂ promoted hydrogenolysis of benzylic compounds in methanol and water

Hsin-Wei Lin, Clive H. Yen, Han Hsu and Chung-Sung Tan*

Department of Chemical Engineering, National Tsing Hua University,
No. 101, Section 2, Kuang-Fu Road, Hsinchu 30013, Taiwan.

E-mail: cstan@mx.nthu.edu.tw

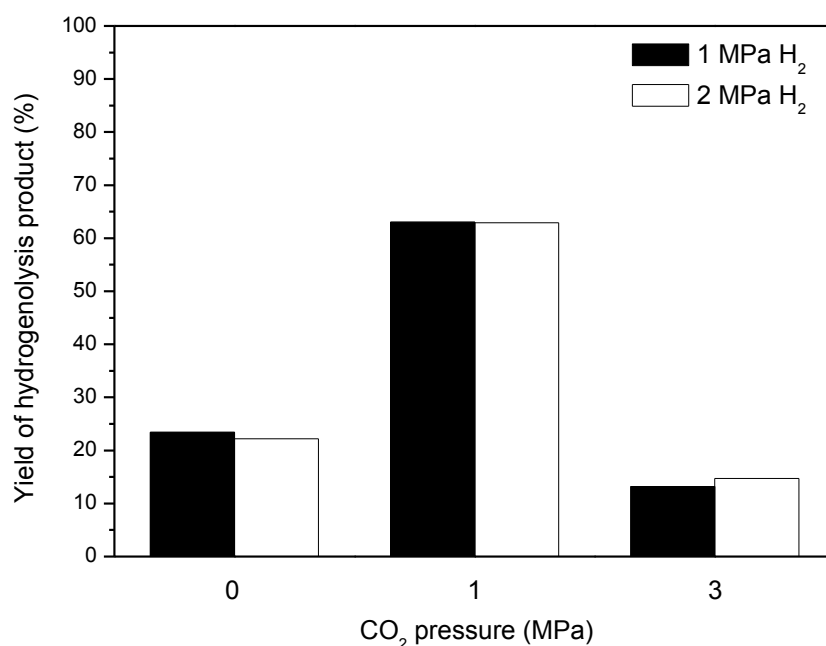


Fig. S1 Influence of H₂ pressure on the conversion of 1-phenylethanol in CO₂-expanded methanol. Conditions: substrate 2 g, Pd/C 25 mg, 1 hr, methanol 50 g, 323 K, stirring 1000 rpm.

Table S1. Hydrogenolysis of benzyl alcohol in different CO₂-expanded liquids^a

Entry	Solvent	CO ₂ pressure (MPa)	Conversion (%)
1	Neat	0	0
2	THF	0	5
3	THF	1	5
4	THF	3	4
5	Cyclohexane	0	10
6	Cyclohexane	1	13
7	Cyclohexane	3	9

^a Substrate 10 g, catalyst Pd/C 50 mg, 3 hr, solvent 50 g, 323 K, H₂ 1 MPa, stirring 1000 rpm.