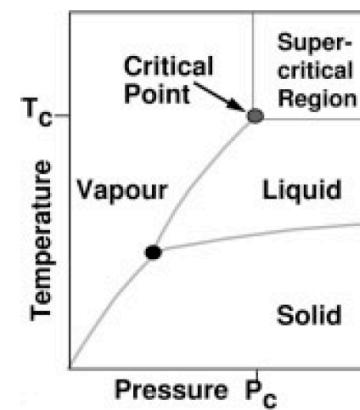


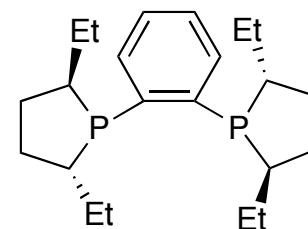
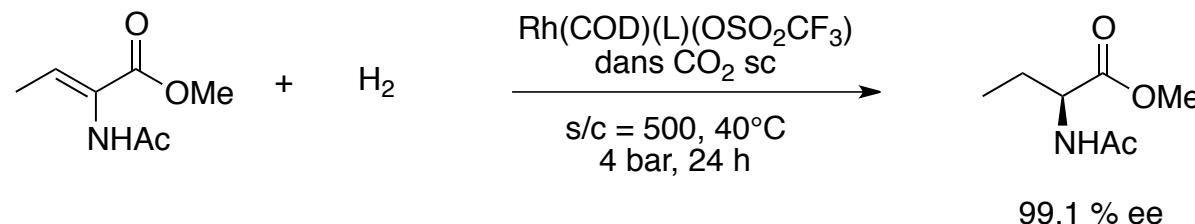
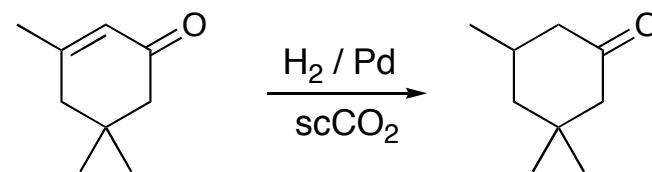
CO₂ supercritique

- Moderate critical pressure (74 bar) and temperature (31°C)
- Non toxic
- Inert
- Nonflammable
- Easy removal: simple depressurization
- Miscible with hydrogen and oxygen
- Its physical properties (polarity, etc.) can be tuned through pressure and/or temperature variations
- No net addition to the atmosphere (greenhouse gas)
- Replacement for Volatile Organic Compounds (VOCs) in extraction processes (decaffeinated coffee)
- Enzymes are more stable in scCO₂ than in water
- High reaction rates (properties between gas and liquid)



CO₂ supercritique

Catalytic hydrogenation of isophore in scCO₂



“Asymmetric Catalytic Hydrogenation Reactions in Supercritical Carbon Dioxide”
Burk, M. J.; Feng, S.; Gross, M. F.; Tumas, W., *J. Am. Chem. Soc.* **1995**, *117*, 8277–8278

CO_2 supercritique

- Solvant approprié pour faire de la biocatalyse
- Dédoublement cinétique d'un alcool racémique
- Acétate de vinyle utilisé comme agent de transfert d'acétyle

