



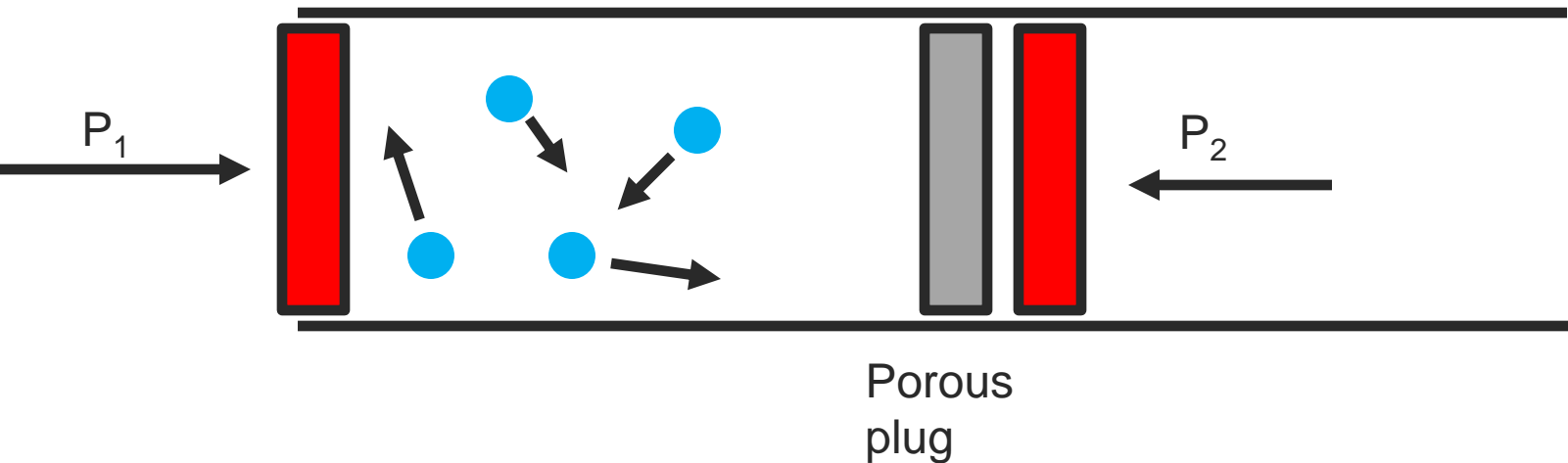
[Chemical Thermodynamics]

[Joule-Thompson Expansion]

- Joule-Thompson expansion
- Center of Linde process for liquefaction of gases.

[Joule-Thompson Expansion]

- Schematic description



- Work on high pressure side
- Work on low pressure side

[Joule-Thompson coefficient]

- Define Joule-Thompson coefficient

[Joule-Thompson coefficient]

- Use equation of state with the Joule-Thompson coefficient

[Real Gases]

- Evaluate behavior using real gases
- Remember virial expansion in terms of pressure

[Real Gases]

- Value of Joule-Thompson coefficient depends on behavior of B_{2P} as a function of temperature.

[van der Waals]

- van der Waals expression for Joule-Thompson coefficient

[Liquid N₂]

- Make liquid N₂ using Joule-Thompson expansion
- Need the inversion temperature