

# CH 440 Physical Chemistry

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## 1 Lecture 6

- Internal energy of the system
- Properties can be path-independent
- Final - initial
- Relating VdW to molecular parameters
- Surroundings, system
- walls
- open systems, isothermal systems, adiabatic systems,
- reversible process
  - Reversible carried out in such a manner that its state variables can be reversed at every stage
  - isothermal contraction or expansion of a gas
  - adiabatic expansion or contraction
  - heating at a fixed pressure(isobaric)
  - heating at a fixed volume(isochoric)
- adiabatic process
  - no heat transfer between system and surrounding
  - fundamental to 2nd law of thermo