

Exam 3 points of emphasis (with suggested end-of chapter problems)

Use the combined gas law (5.20 5.22)

Calculate for number of moles and molecular weight with ideal gas law (5.32 5.34)

Calculate ΔH_f using Hess's law

(6.56 and 6.62)

Calculate enthalpy of reaction from heats of formation

(6.26 – 6.28)

Calorimetry

(6.34 and 6.38)

Calculate frequency, energy and wavelength (7.16 and 7.18)

Calculate energy and frequency of electronic transitions (7.32)

Describe electronic structure using orbital diagrams, electron configuration and quantum numbers

(7.79, 7.80 and 8.18)

Work with electron configuration of simple ions (8.28)

Explain periodic trends; atomic radius, ionic radius, ionization energy and electron affinity

(8.40, 8.42, 8.54, 8.60)