

CHAPTER OVERVIEW

31: Solids and Surface Chemistry

- 31.1: The Unit Cell is the Fundamental Building Block of a Crystal
- 31.2: The Orientation of a Lattice Plane is Described by its Miller Indices
- 31.3: The Spacing Between Lattice Planes Can Be Determined from X-Ray Diffraction Measurements
- 31.4: The Total Scattering Intensity is Related to the Periodic Structure of the Electron Density in the Crystal
- 31.5: The Structure Factor and the Electron Density Are Related by a Fourier Transform
- 31.6: Atoms and Molecules can Physisorb or Chemisorb to a Surface
- 31.7: Isotherms are Plots of Surface Coverage as a Function of Gas Pressure at Constant Temperature
- 31.8: Using Langmuir Isotherms to Derive Rate Laws for Surface-Catalyzed Gas-Phase Reactions
- 31.9: The Structure of a Surface is Different from that of a Bulk Solid
- 31.10: The Haber-Bosch Reaction Can Be Surface Catalyzed
- 31.E: Homework Problems

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