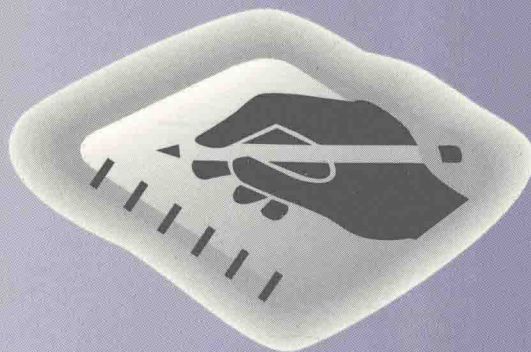
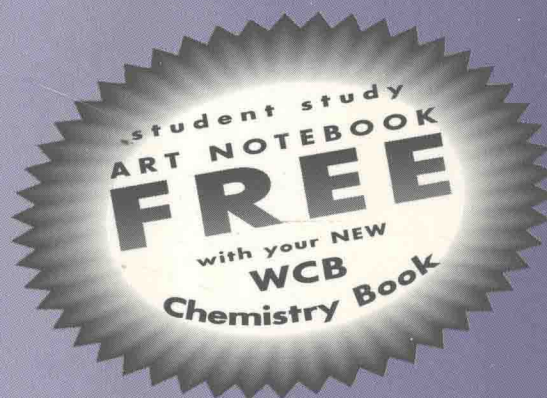


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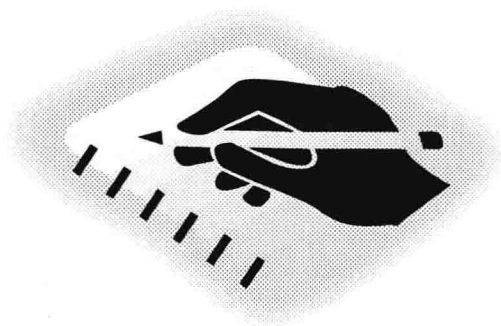


*Inorganic, Organic, &  
Biological Chemistry*



Caret Denniston Topping

**s t u d e n t s t u d y**  
**A R T N O T E B O O K**



***Inorganic, Organic, &  
Biological Chemistry***

**Robert L. Caret / Katherine J. Denniston / Joseph J. Topping**  
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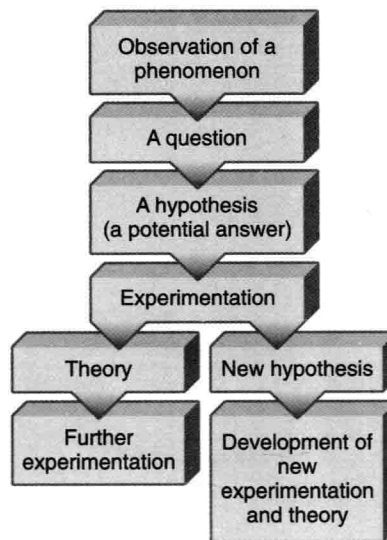
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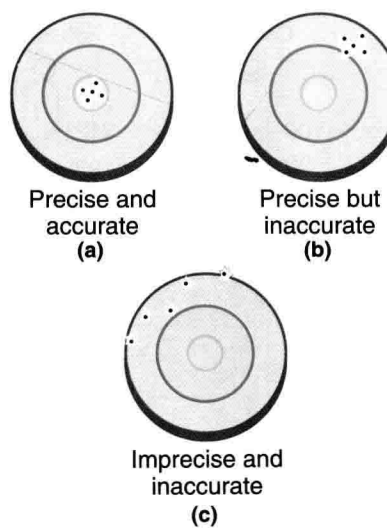
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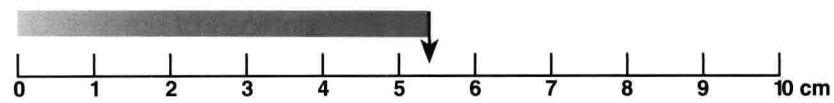
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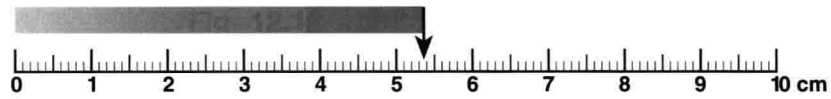
**The Scientific Method**



**Precision and Accuracy**

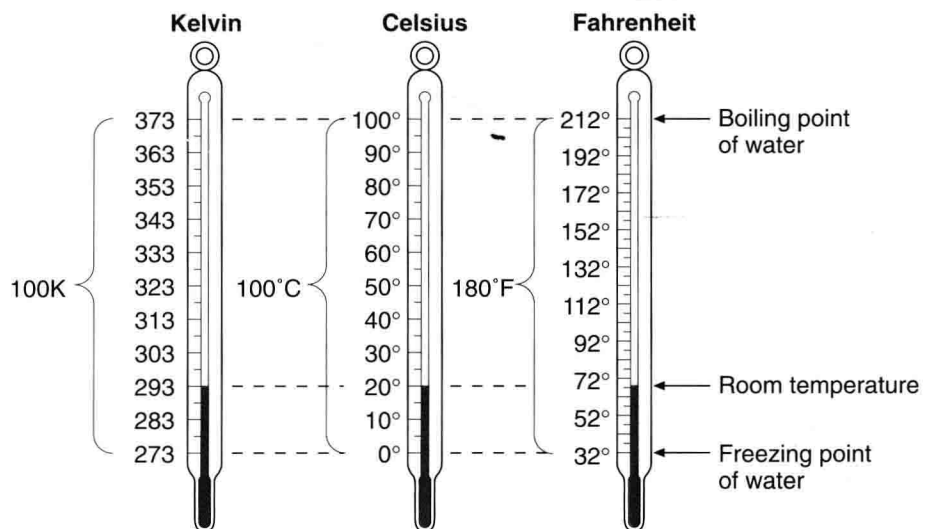


5.4 cm  
(a)

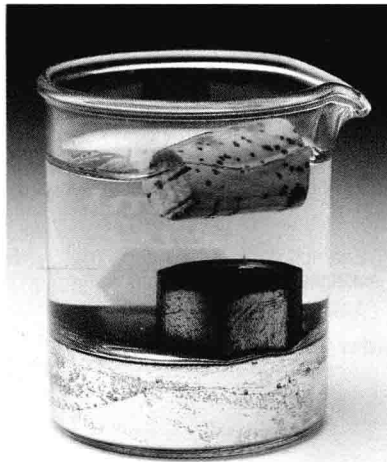


5.36 cm  
(b)

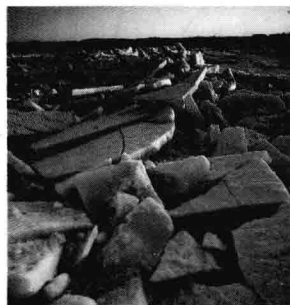
### Significant Figures



Three Common Units of Temperature



**Density—A Unique Property of a Material**



**(a)**

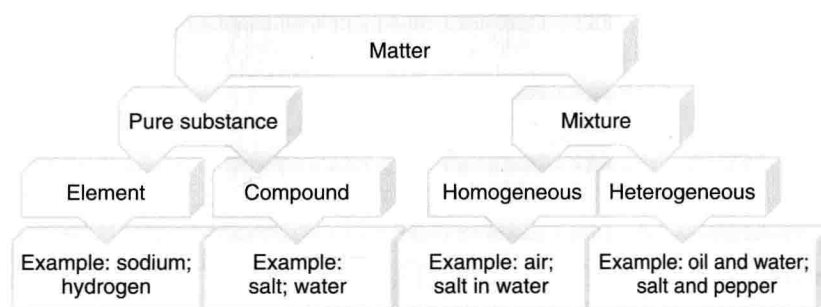


**(b)**

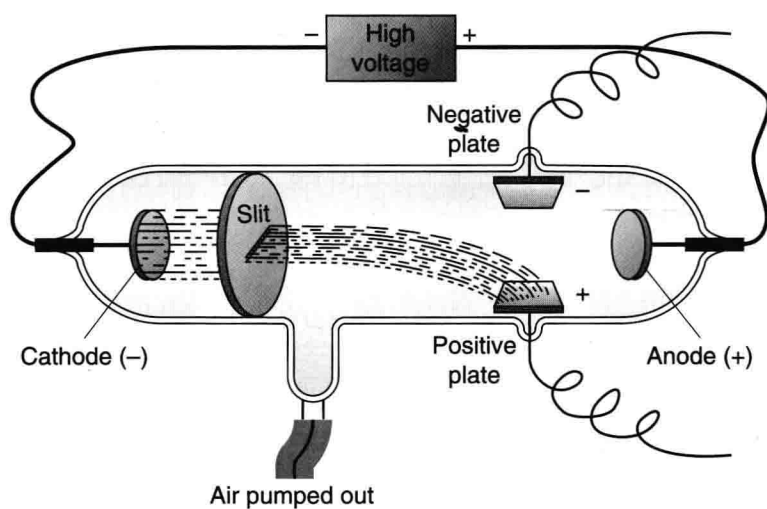


**(c)**

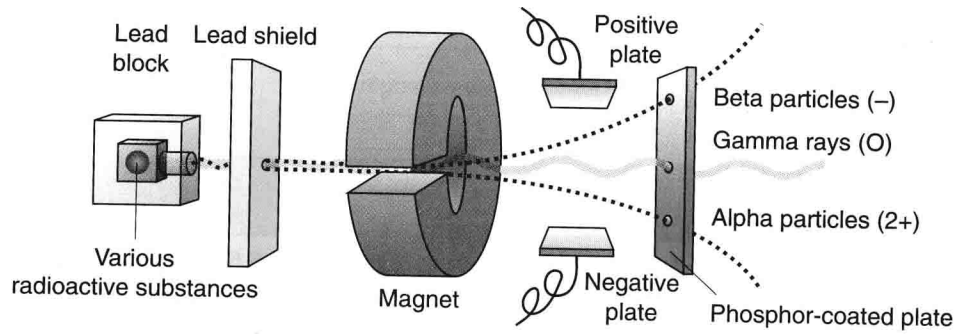
**Three States of Matter Exhibited by Water**



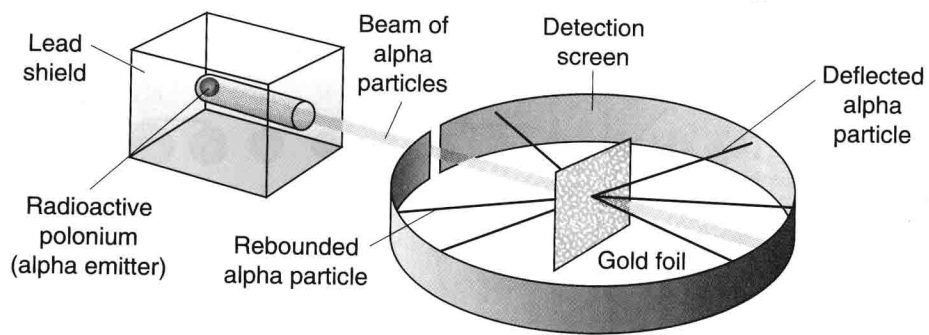
**Classification of Matter**



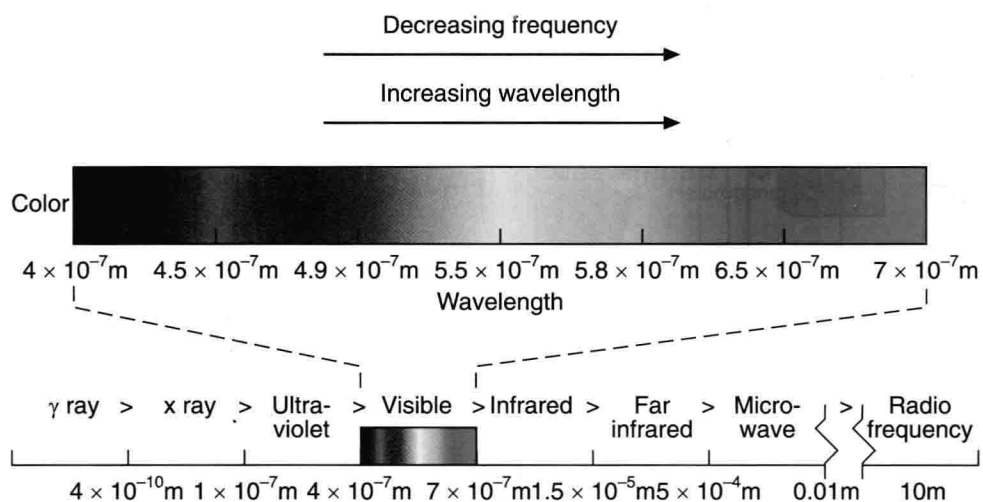
**Experiment Demonstrating the Charge of Cathode Rays**



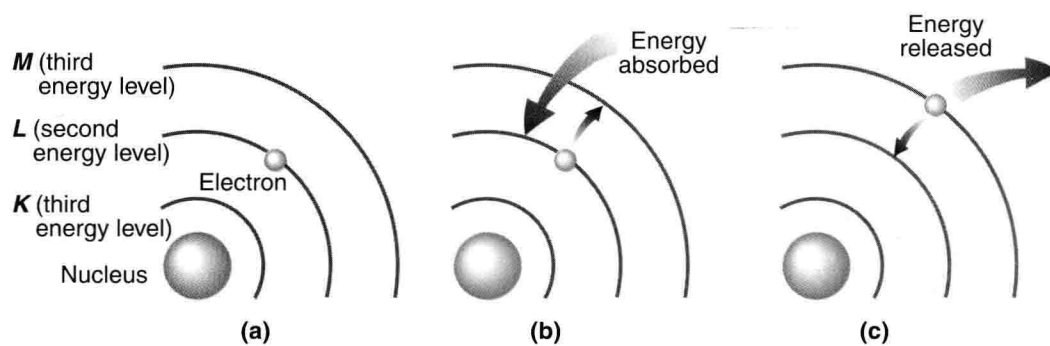
**Types and Characteristics of Radioactive Emissions**



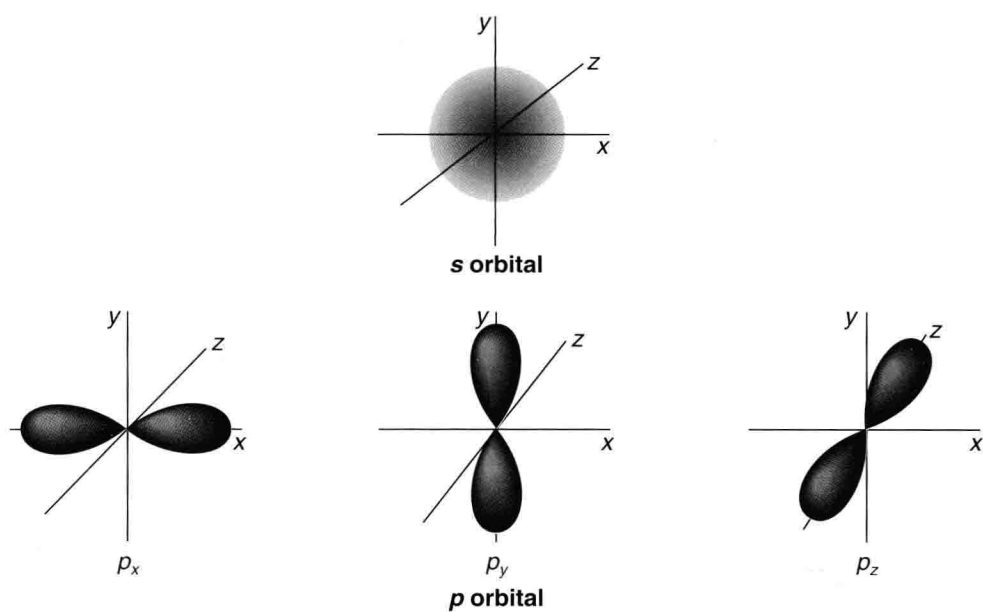
**Alpha Particle Scattering Experiment**



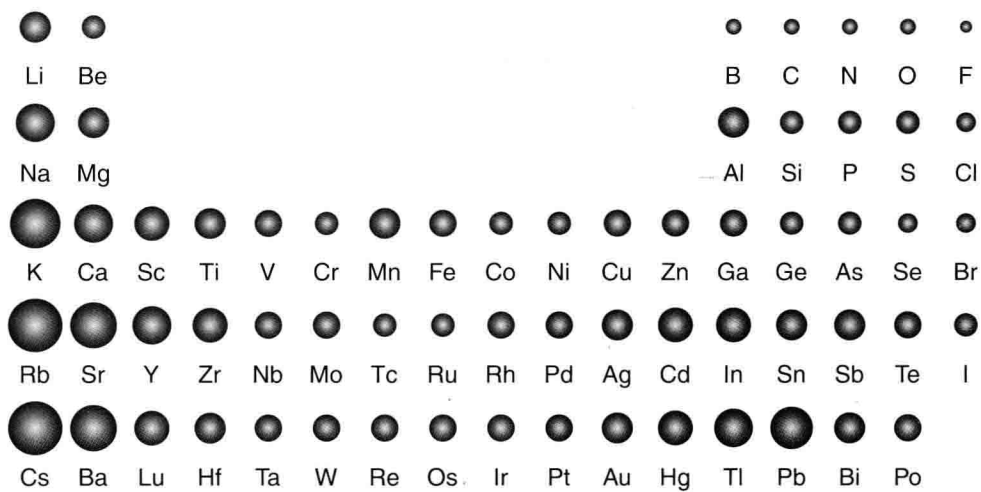
**Electromagnetic Spectrum**



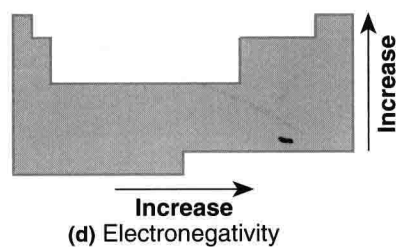
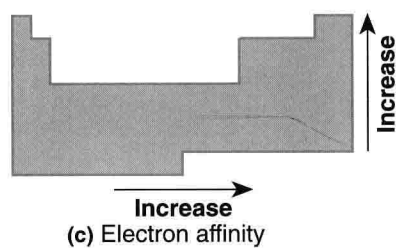
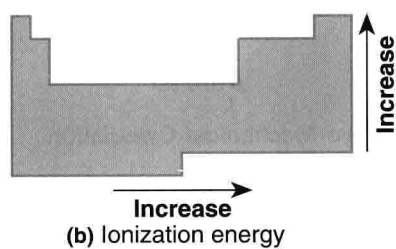
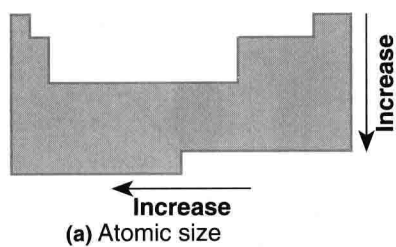
**Orbital Energy-Level Diagram of the Bohr Atom**



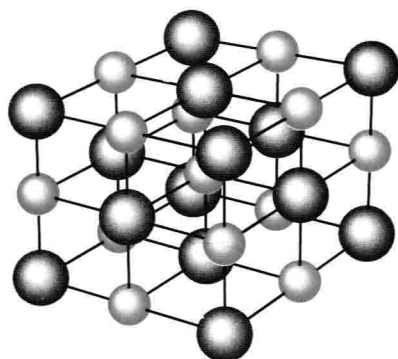
**Atomic Orbitals from the Wave-Mechanical Calculation**



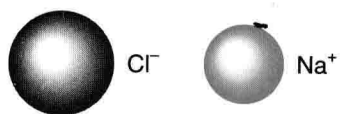
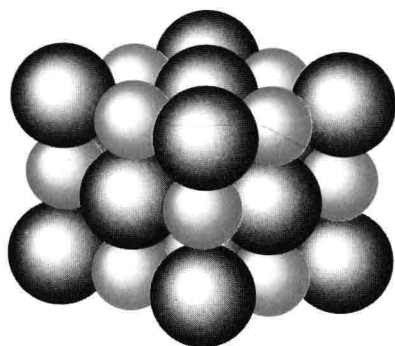
**Variation in Size of Atoms**



**Periodic Trends for Atomic Size, Ionization Energy,  
Electron Affinity, and Electronegativity**

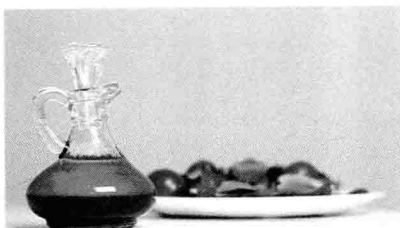


(a)

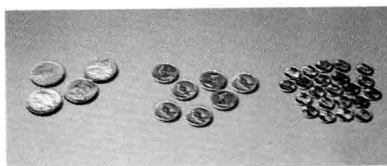


(b)

Arrangement of Ions in a Crystal of NaCl



**Interaction of Polar Water Molecules and Nonpolar  
"Oil" Molecules**



**One Mole of Atoms**