

LECTURE 4 PARTICLE-LIKE NATURE OF LIGHT

I. Photoelectric Effect

- A. Threshold frequency, ν_0
- B. Kinetic energy vs. frequency
 - 1. Classical predictions
 - 2. Planck's constant
 - 3. $E = h\nu$
- C. Threshold energy

II. Photon Momentum

A. $p = \frac{h}{\lambda}$