

The path to the Quantized Bohr Atom

(1) Black Body Radiation's distribution of wave lengths **REQUIRES $E = hf$**
for EMAG Radiation, & $h = 6.6 \times 10^{-34}$ J-sec
- Max Planck

(2) Photo-Electric emission of electrons from metals by E-Mag radiation (& especially $E_{MAX}^{e^-}$ independent of I & proportional to f)
REQUIRES LIGHT to be PARTICLE-LIKE
with photons of $E = hf$ & $p = hf/c$.
- A. Einstein

(A. Bohr:
(3) Discrete Emission & Absorption frequencies of atoms **REQUIRES that**
ONLY CERTAIN e^- orbits around nucleus are allowed: namely, those
with $r \cdot p = \frac{n}{2\pi} h \iff 2\pi r = n \cdot \frac{h}{p}$

SAME Planck's constant $h = 6.6 \times 10^{-34}$ J-sec
appears in each case!