
Quantum Mechanics

Physics 237

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Lecture 2.

- Homework set # 1 is due this week on Friday at noon. Homework must be submitted as a single pdf file, to the dropbox link provided on the assignment.
- This week we will discuss Chapter 2.
- My office hours will start on Wednesday 1/19.
- The office hours of the TAs will start on Wednesday 1/19 and Thursday 1/20 (see the Phy 237 webpage and/or the Phy 237 calendar for the details).
- Workshops will start next week (1/24).

Let us have a look at the a few more details of the Phy 237 webpages.


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[Course Information](#) | [Lecture Notes](#) | [Chapter Notes](#) | [Exams](#) | [Homework](#) | [Practice Exams](#) | [Resources](#)

Physics 237 Homepage. Spring 2022.

Professor Frank L. H. Wolfs

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Quantum Mechanics of Physical Systems

Introduction to quantum mechanics with emphasis on applications to physical systems. Includes Schroedinger theory; solutions to the one-dimensional Schroedinger equation; the hydrogen atom; and selected applications from atomic and molecular physics; quantum statistics; lasers; solids; nuclei; and elementary particles.

The picture on the left show Max Planck, who is considered by many the father of quantum physics.

This course meets every Tuesday and Thursday between 12.30 pm and 1.45 pm in Gavet 206. See you there!

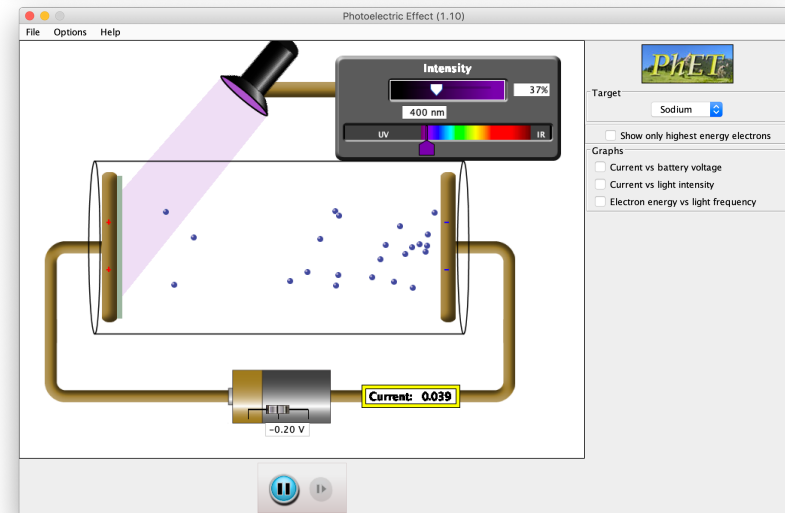
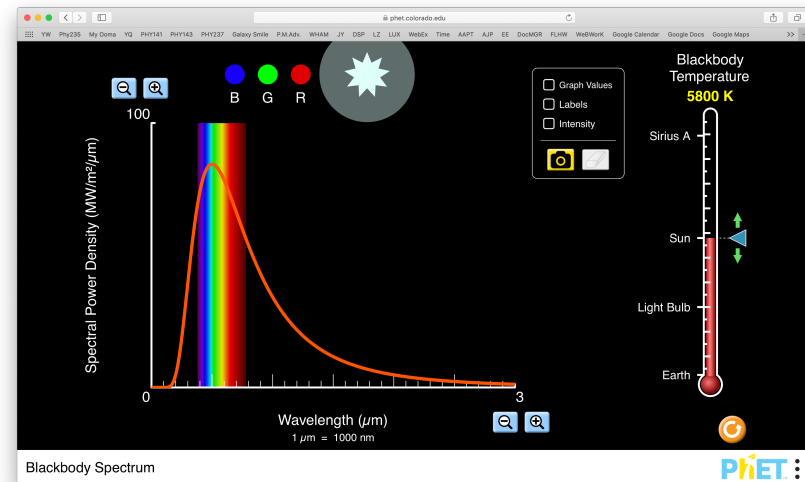
Last updated on Sunday, January 2, 2022 14:42

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Let us have a look at the Phy 237 webpages in more detail.

- Here you will find:

- My Chapter notes.
- Homework assignments and solutions.
- Practice exams and their solutions.
- The real exams and their solutions.
- Links to various simulations related to the material discussed in the course.
- Other useful documents and links.
- Some links not related to quantum mechanics.
- Some areas are password protected. Password information will be distributed via email.



The nobel lectures of scientists who made major contributions to QM are accessible.

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Physics 237, Extra Reading Materials - Nobel Lectures

This page provides links to various extra reading materials for Physics 237:

- Lecture 01:
 - [Nobel lecture Max Planck](#)
- Lecture 02:
 - [Nobel lecture Albert Einstein](#)
 - [Nobel lecture Robert Millikan](#)
- Lecture 3:
 - [Nobel lecture Arthur Compton](#)
- Lecture 4:
 - [Nobel lecture Louis Victor De Broglie](#)
 - [Nobel lecture Clinton Davisson and George Thomson](#)
- Lecture 6:
 - [Nobel lecture Niels Bohr](#)
 - [Nobel lecture James Franck and Gustav Hertz](#)
- Lecture 7:
 - [Nobel lectures of Werner Heisenberg, Erwin Schroedinger, and Paul Dirac](#)

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The practice exams are a good tool to prepare you for the Physics 237 exams.

- Use the practice exams a few days before the actual exam to judge your understanding of the material.
- Take the entire exam at once and grade it, using the posted solutions, to determine on what areas you need to focus.
- And yes, there will be questions that may not be directly connected to QM but were discussed in class.

Midterm Exam 1

February 18, 2010

Physics 237

12.30 pm - 1.45 pm

Problem 4 (5 points)

ANSWER IN BOOKLET 2

How many times did the Yankees win the world series?

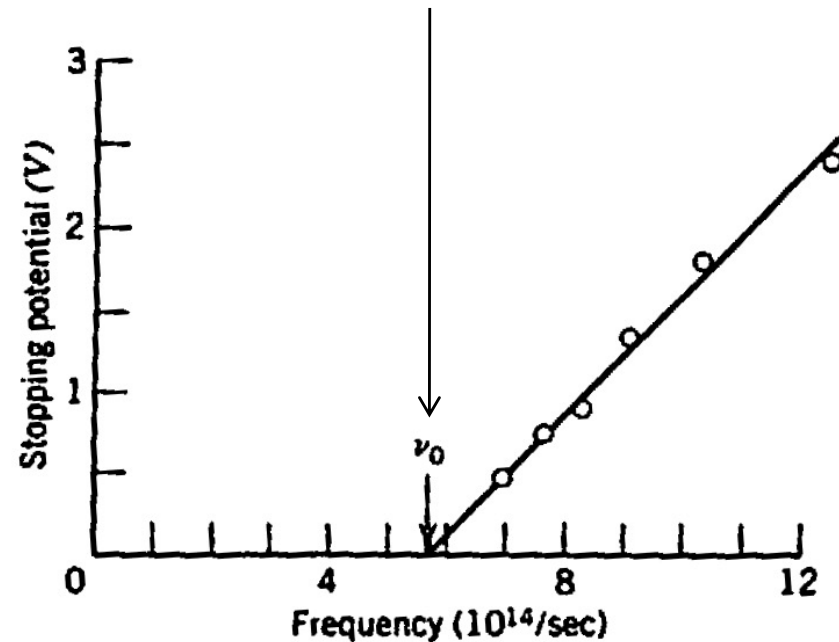
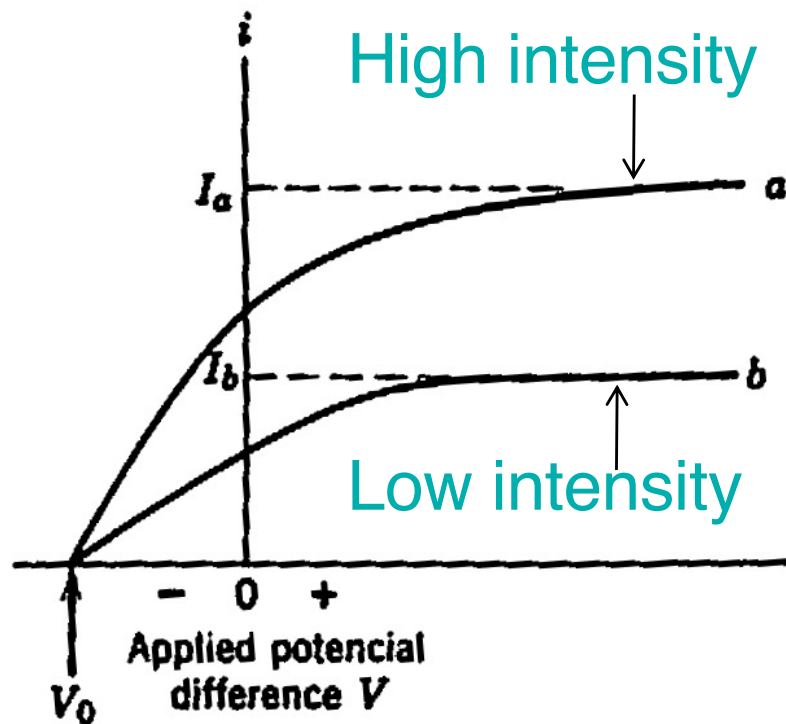


1. 4
2. 25
3. 27
4. 45

Screenshot

The Photoelectric Effect.

Below 5.8×10^{14} Hz no electrons are emitted.

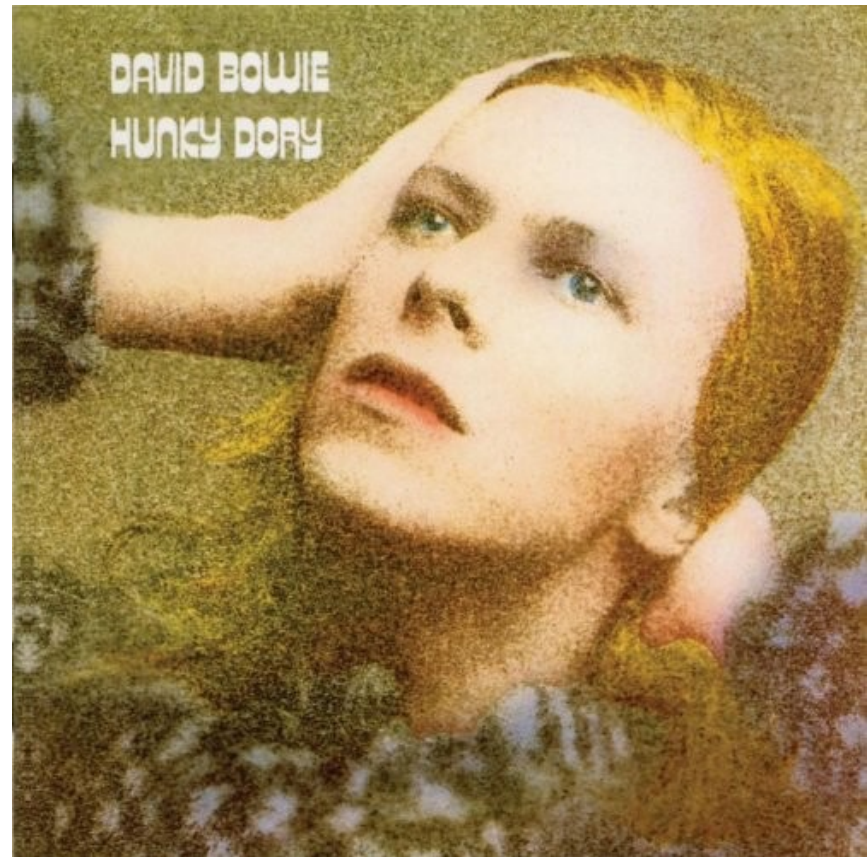


Same wavelength of light.
Different intensities.

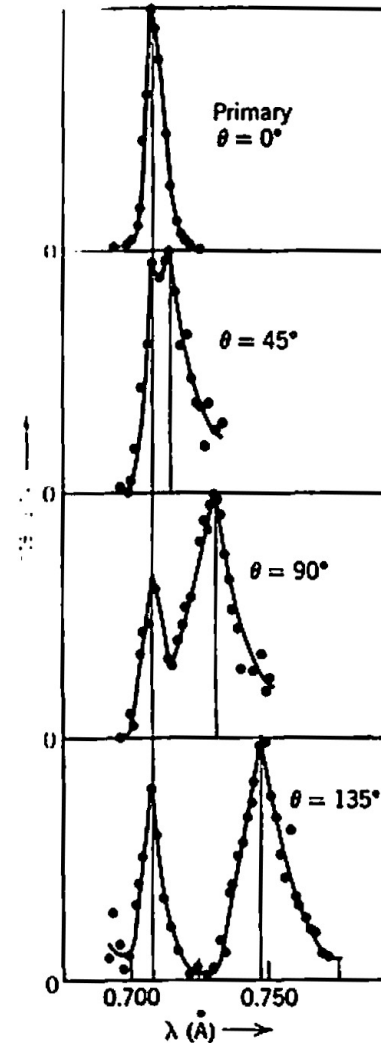
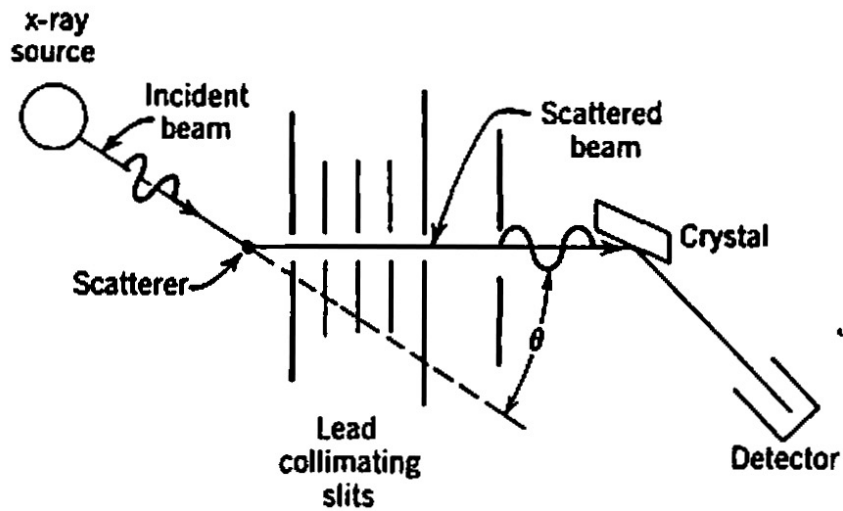


4 Minute 14 Second Intermission.

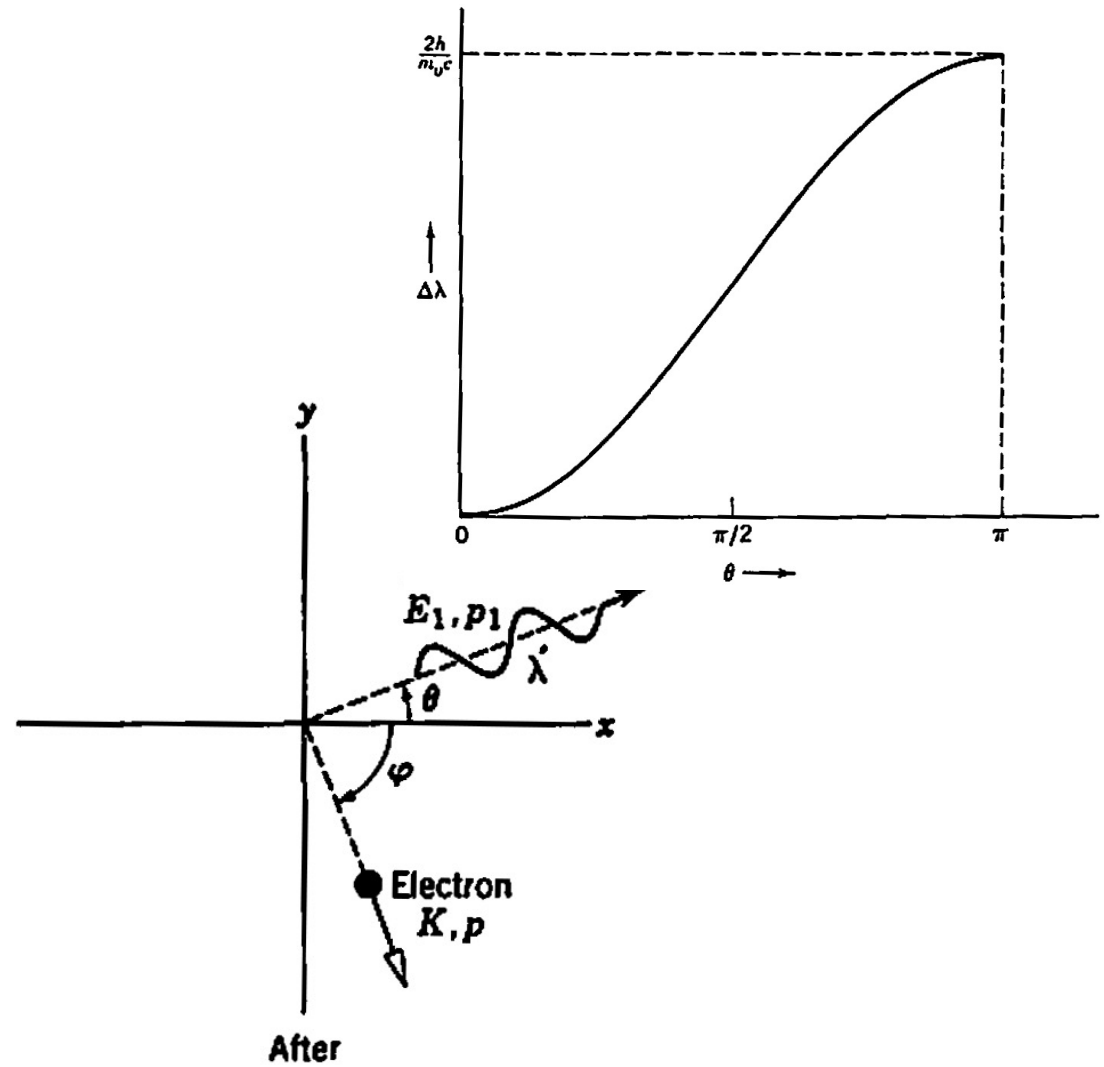
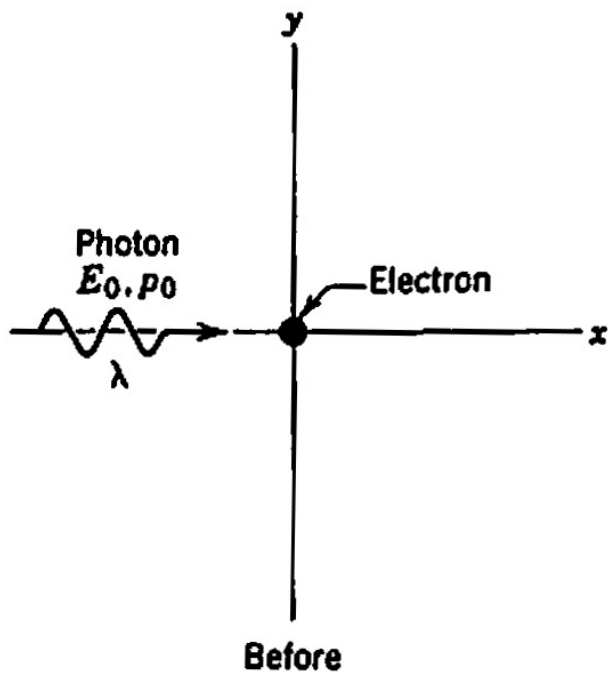
- Since paying attention for 1 hour and 15 minutes is hard when the topic is physics, let's take a 4 minute 14 second intermission.
- You can:
 - Stretch out.
 - Talk to your neighbors.
 - Ask me a quick question.
 - Enjoy the fantastic music.



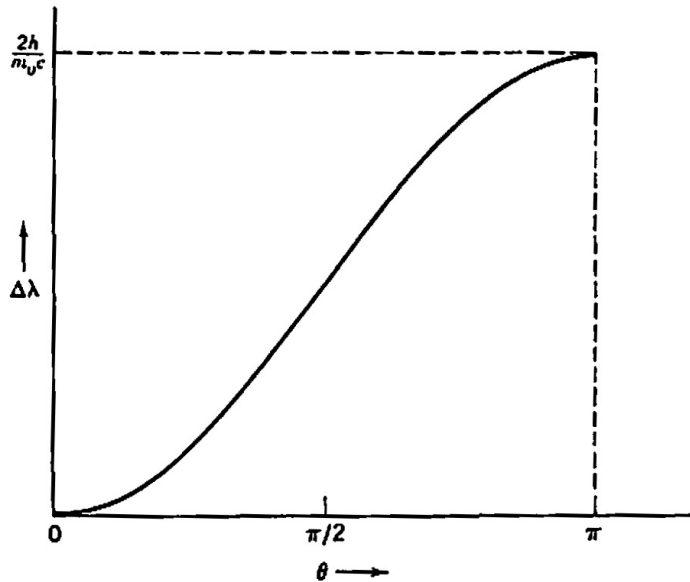
The Compton Effect.



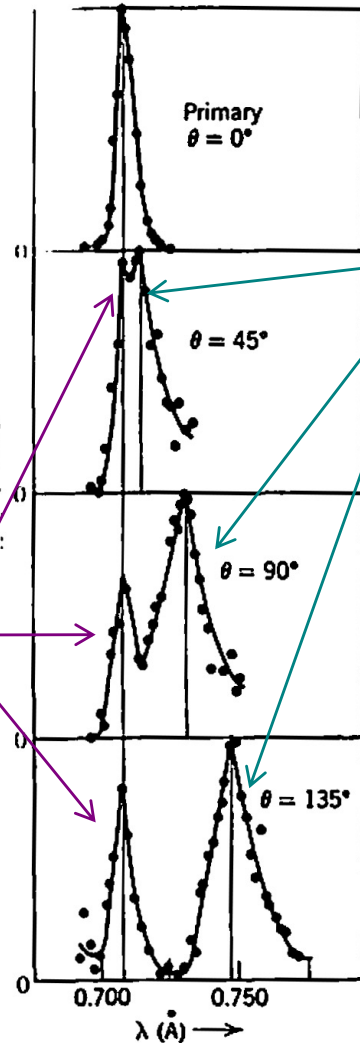
The Compton Effect.



The Compton Effect.

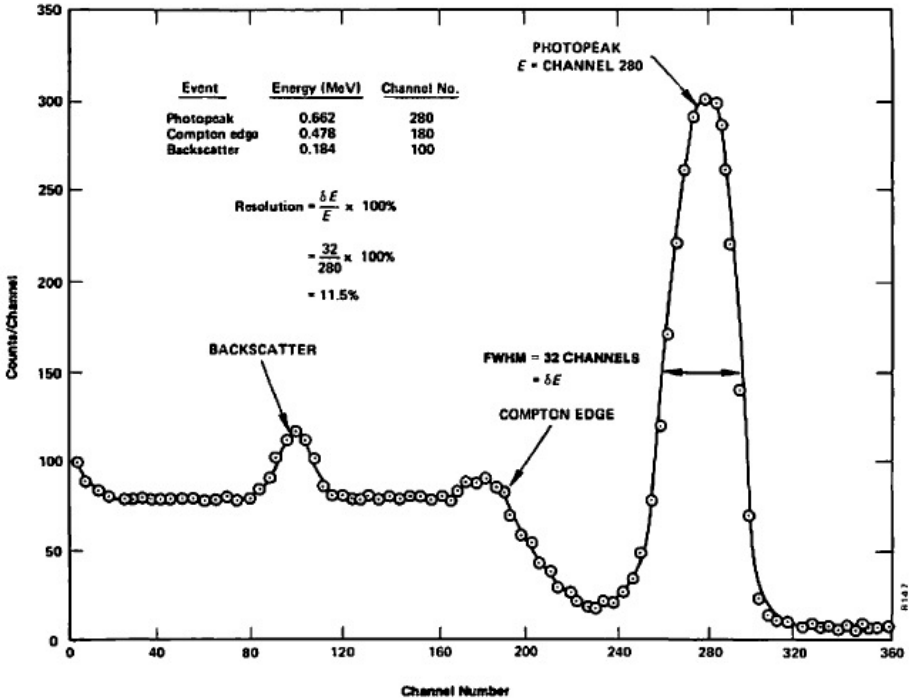
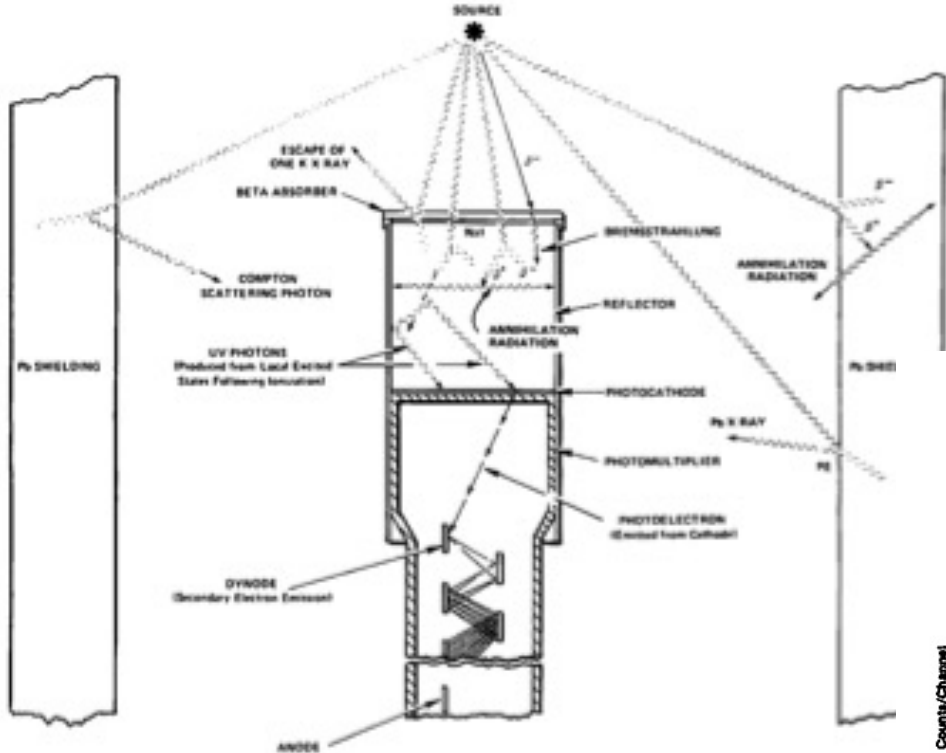


Scattering of the atom.



Scattering of e^- .

Detecting photons.



ENOUGH FOR TODAY?