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Revision Workshop 2016

PHYSICS

OPTICAL PHENOMENA

DBE 10% | IEB 8%

- **Photoelectric Effect**
- **Line Spectra**

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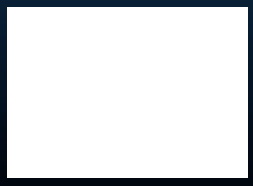
Photoelectric Effect

- When electromagnetic radiation shines on a metal, the incoming photons may cause electrons to be ejected as photoelectrons



- Evidence of the particle nature of light (EM radiation)

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Photoelectric Effect

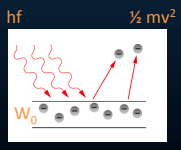
- Using the equation:

MOVIES AND POPCORN!!!

YR MONEY — POPCORN ☺

$$hf = W_0 + \tfrac{1}{2} mv^2$$

TICKET PRICE



- See Phet…

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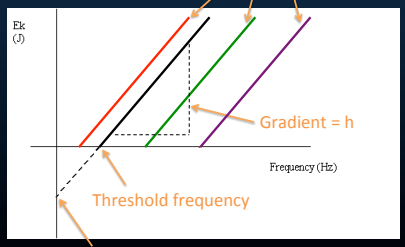
Photoelectric Effect

- Graph

Graph for different metals – e.g. Cs, Na, Zn



- Work function

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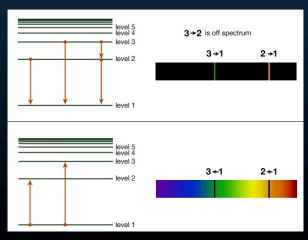
Spectra

- Photons emitted or absorbed by atoms when electrons jump from one energy level to another



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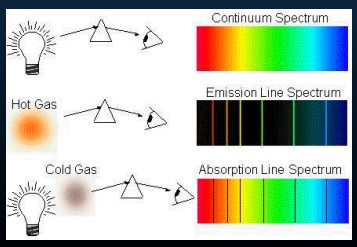
Spectra

- Emission and absorption spectra



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OVERVIEW

- That's it!
- Now all you have to do is…

- PRACTICE!
- PRACTICE!!
- PRACTICE!!! ☺

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