Ostroverkhova Research Group

3/17/23

Physics 607

Who are they?

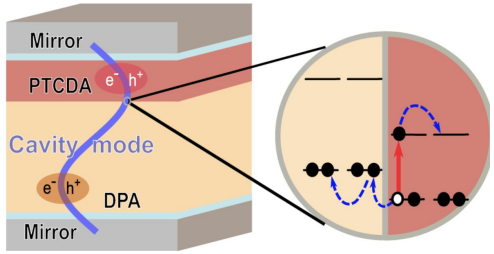
- 7 graduates:
  - Winston Goldthwaite
  - Roshell Lamug
  - Michael Chase
  - Kevin Dimmitt
  - Piper Aislinn
  - Vivek Jain
  - Matt O'Meara
- 4 Undergraduates:
  - Rebecca Munk
  - Mallory Kirms
  - Madalyn Gragg
  - Michael Hildebrandt
- Oksana (obviously)

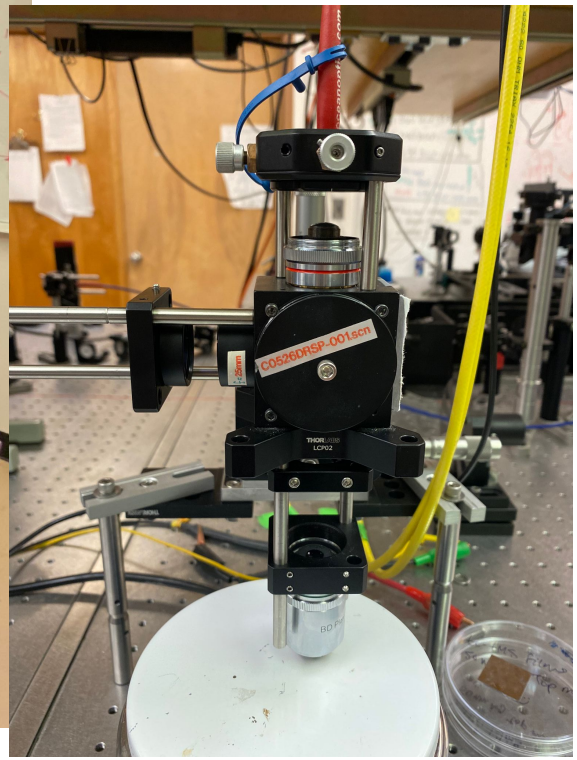
What do they do

- Organic electronics and photonics group
  - 5 working on organics, polariton chemistry
  - 2 on 2D materials (Piper, Vivek)

How do they do it?

- Photoluminescence Spectroscopy
  - Ultrafast Spectroscopy (via Transient Absorption)
  - Thin Film Deposition (for mirrors)
  - Electrical Characterization (IV curves)


Mirror
PTCDA
e⁻ h⁺
Cavity mode
e⁻ h⁺
DPA
Mirror


C0526DRSP-001scn

Collaborations

- Hewlett Packard (Corvallis Campus)
- Forestry department: LED pigments from fungi
- Entomology: Attracting bees with blue traps

Where do graduates go?

- Grads are exclusively industry bound
  - Intel
  - Senior data scientist at beatBread
  - Nova Dynamics
  - Tektronix
  - Microsoft
- Graduates often leave this group with job offers

How are they funded?

- 2 NSF grants
  - Materials and chemistry Division
- OSU Seed grant on 2D Magnets

Students are generally funded partially with partial GRAs/GTAs

What skills do you need/gain?

Students will generally learn

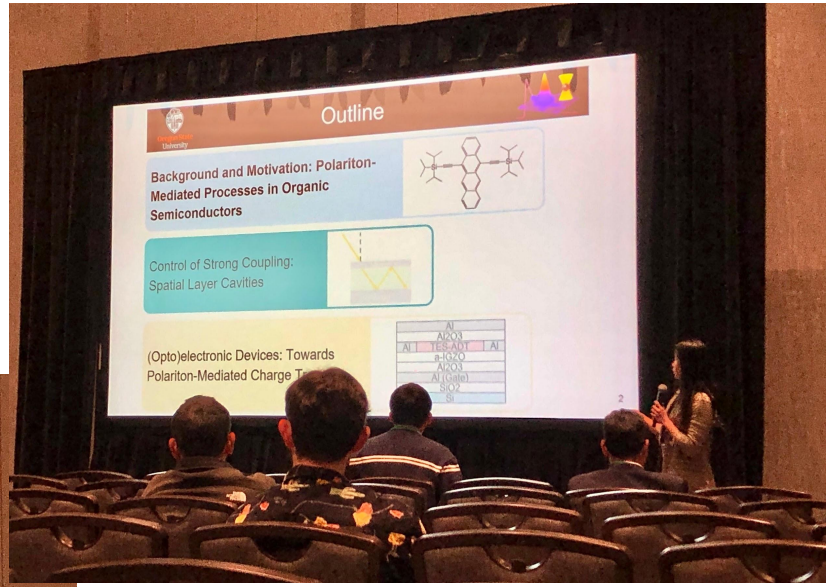
- Optics (very important)
- Chemistry/computational chemistry
- Computational E&M

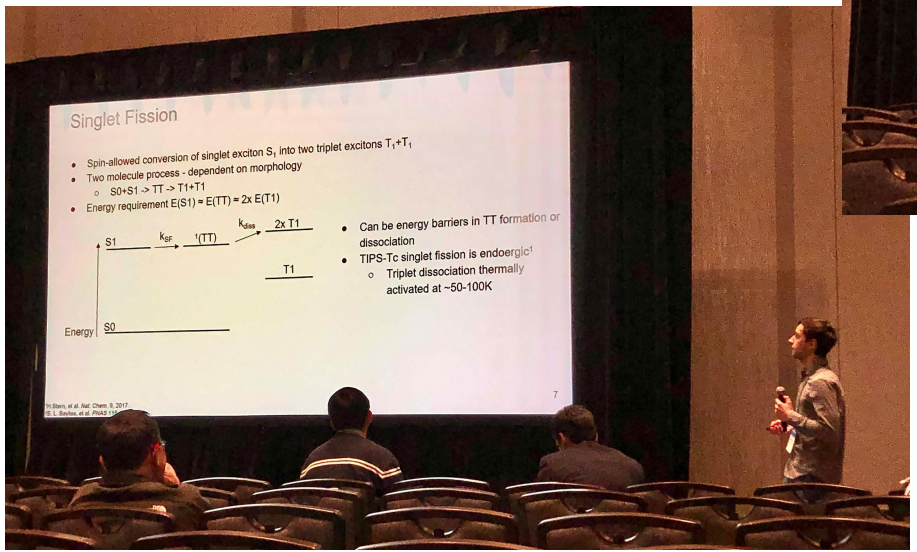
To start, all you need is to know how to work independently

Anything special?

- Safety?
  - General Laboratory Laser and Chemical Safety Trainings
- Travel?
  - Conferences: APS March Meeting
- Strange hours?
  - Normal hours and schedule conflicts are uncommon

APS March Meeting





How do I learn more about them?

- Oksana: she's very friendly
- Papers?
- Posters?
  - Outside the Lab Room
- Website?
  - Research Homepage