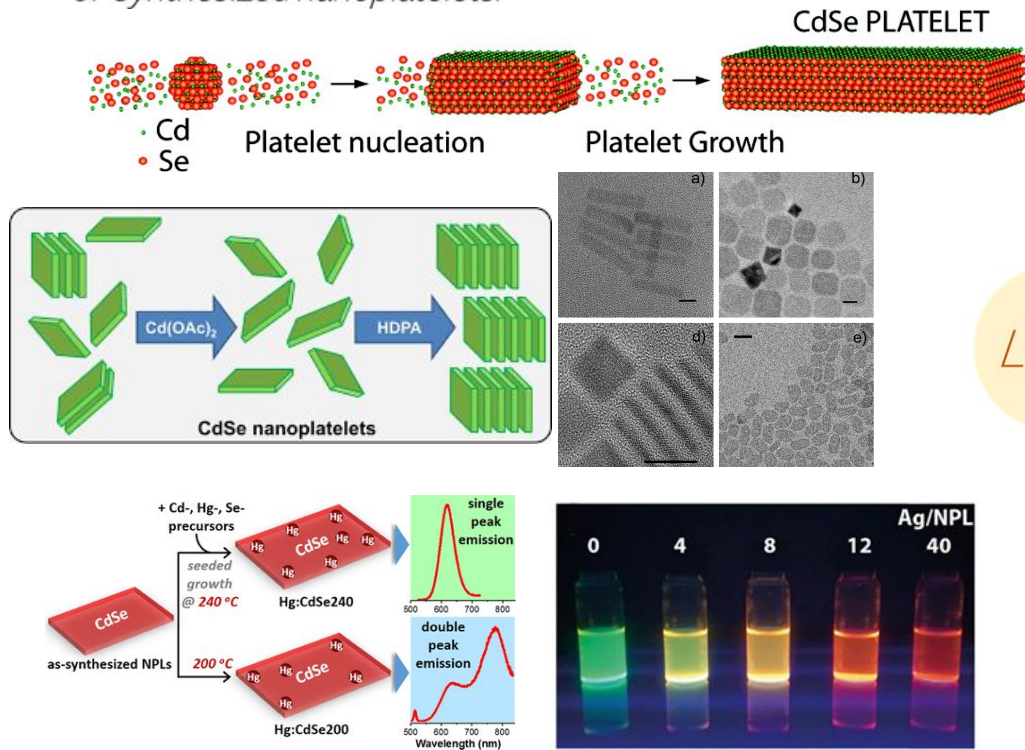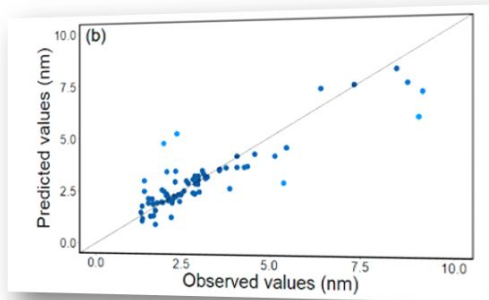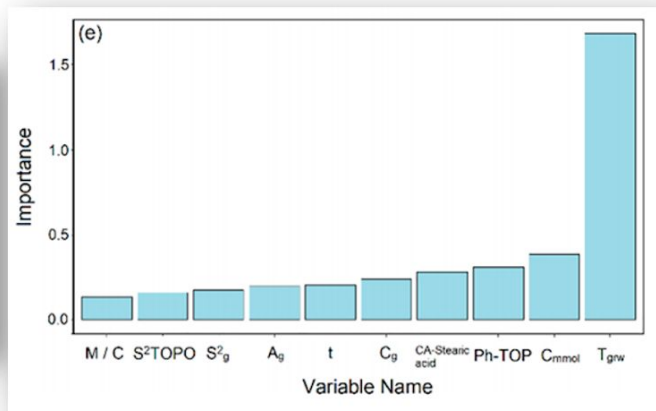# Project Idea:

Develop a machine learning model that would predict how different *experimental conditions* would affect certain *parameters* of synthesized nanoplatelets.
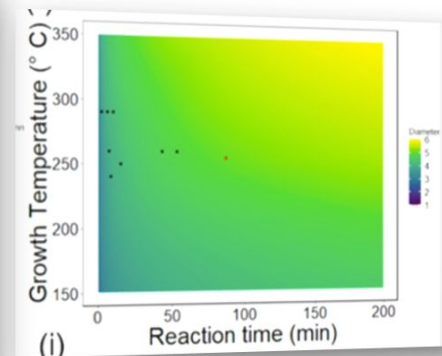

CdSe PLATELET

Cd
Se

Platelet nucleation   Platelet Growth

Cd(OAc)₂   HDPA

CdSe nanoplatelets

a) b) d) e)

+ Cd-, Hg-, Se-precursors

seeded growth @ *240 °C*

Hg:CdSe240

single peak emission

as-synthesized NPLs

200 °C

Hg:CdSe200

double peak emission

Wavelength (nm)

Ag/NPL

0 4 8 12 40

LED

Laser

Photocatalysis

CdSe nanoplates

Absorption/Emission

Stacking

Sizes

Optical Gain

Some potential analysis we could do...

Test out the various ML models on predictive capability

Identify influential parameters

Use models to simulate and suggest new synthesis routes