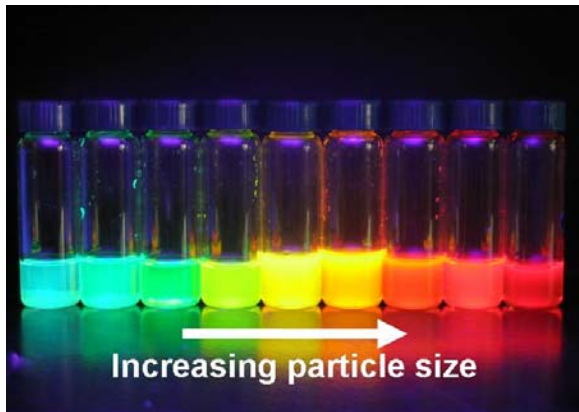
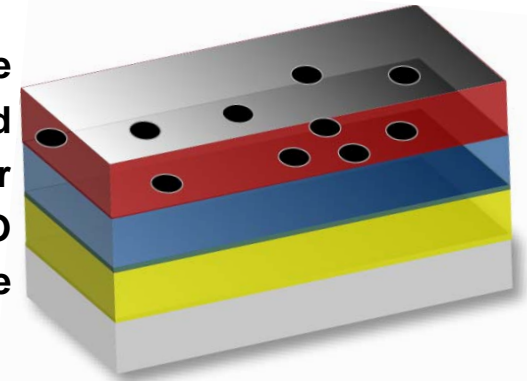


Single CdSe Quantum Dot Behavior and Surface Chemistry

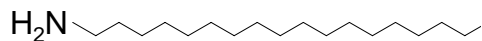
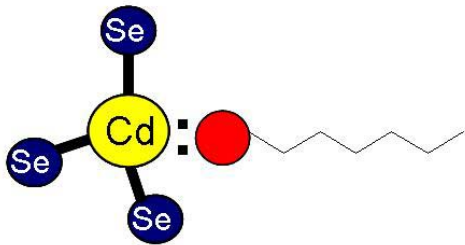


top electrode
QD-polymer blend
hole transporting polymer
ITO
Glass substrate

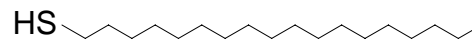
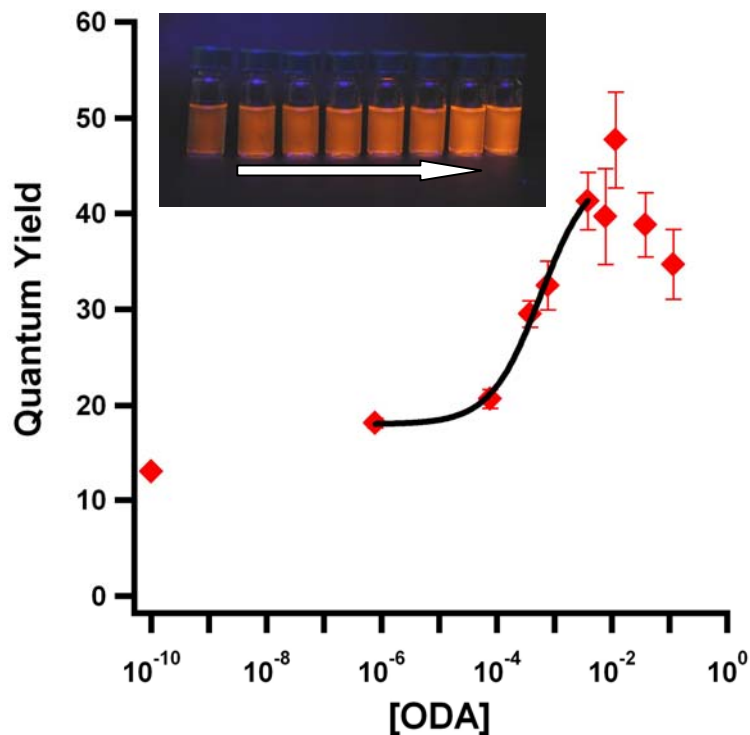


Andrea Munro
CNT Student Symposium
12/7/2005

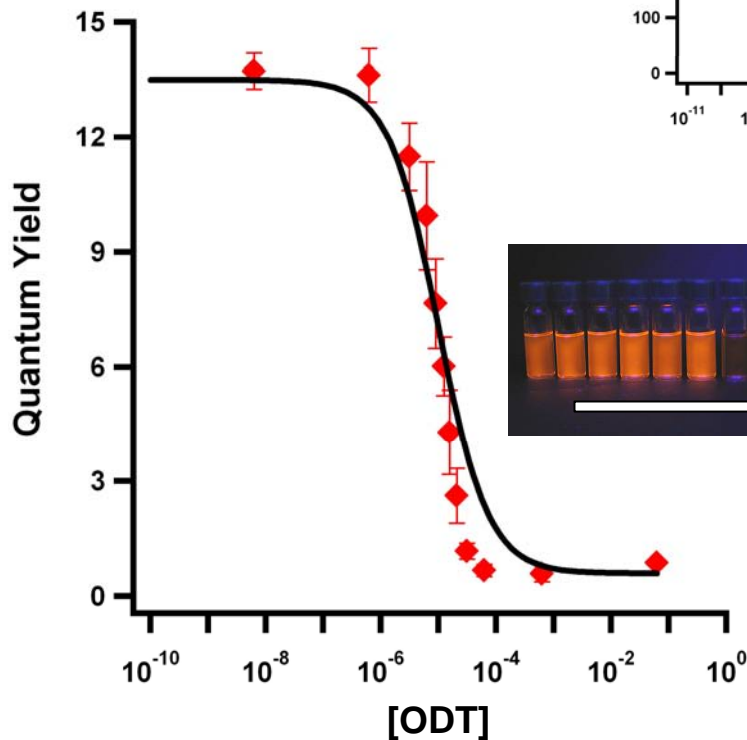
Surface Sensitivity



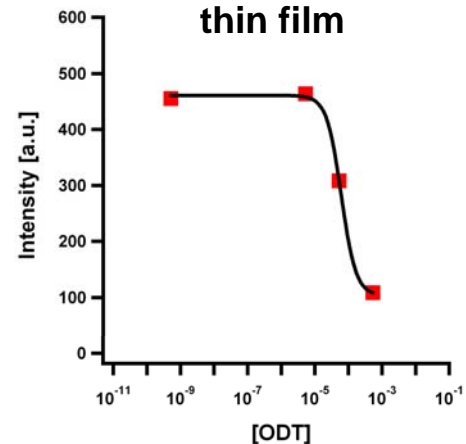
Amine Effect on CdSe soln



Thiol Effect of CdSe soln



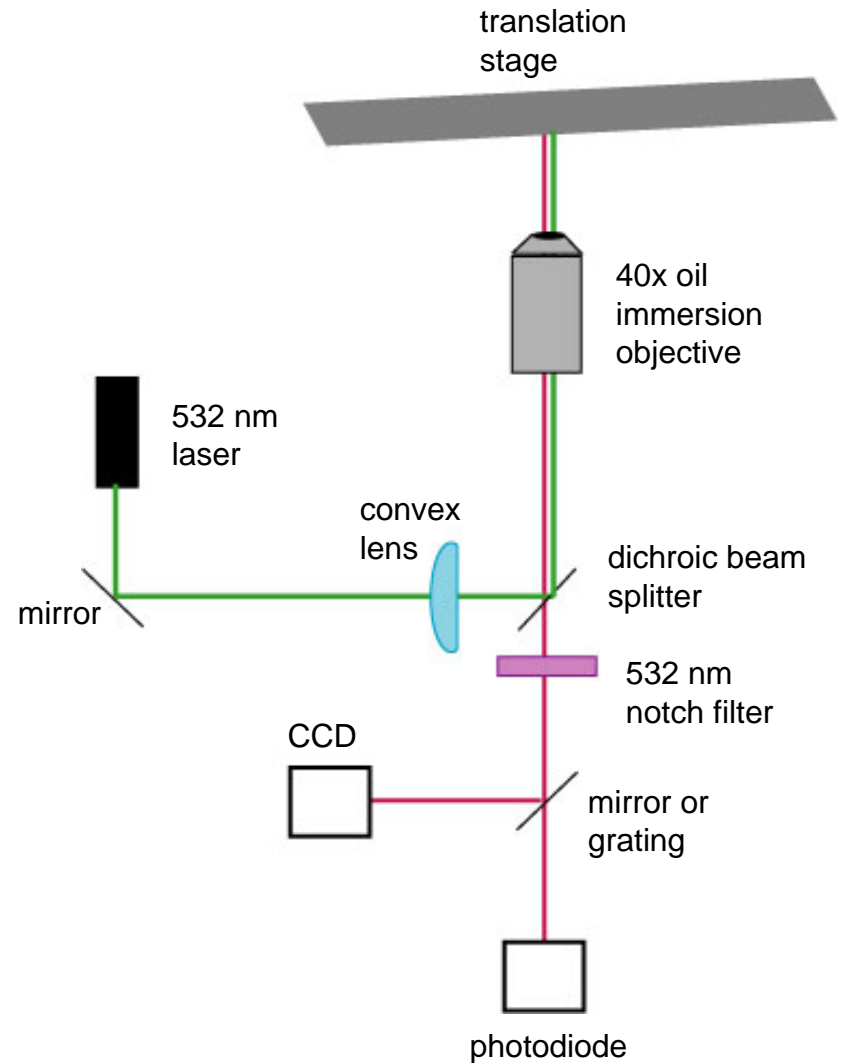
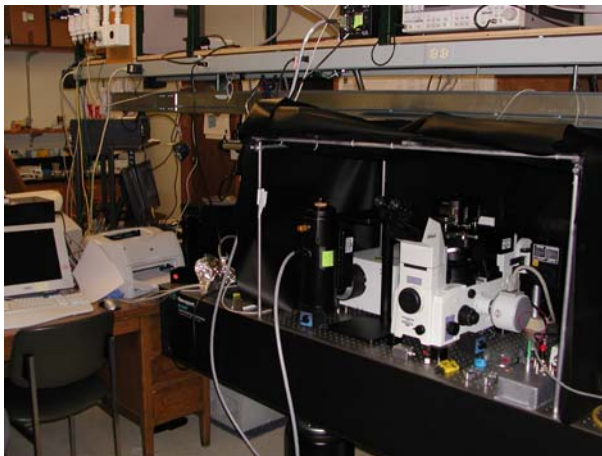
Thiol quenching of CdSe thin film



The Experiment

Image single QDs to determine:

- Intensity
- # emitting per image
- Blinking rate



Conclusions

- Effect on # of emitting dots
 - Number of emitting dots appears to increase with amine concentration
- No apparent effect on dot intensity
- No apparent effect on dot blinking rate