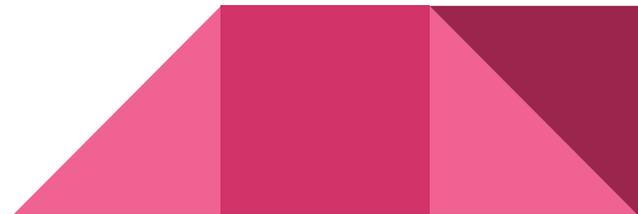


OCACS Dinner Meeting 9/15/2022

Nathan Ouyang

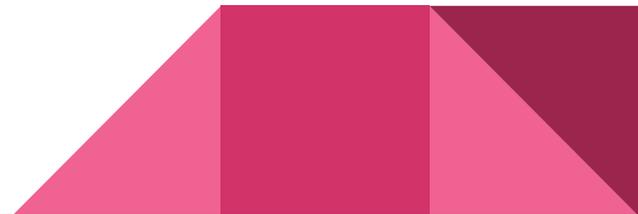
Outline

- Prep for USNCO
- Study camp
- IChO



Why chemistry?

- Pandemic



USNCO

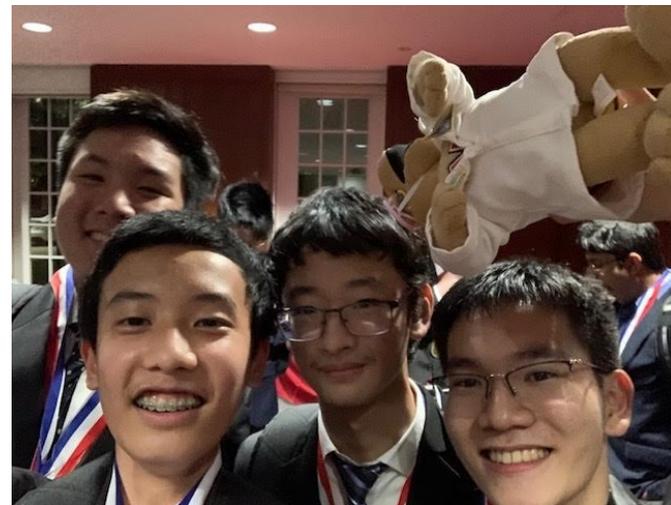
- Local exam
- National exam
 - Part 1, 2
 - Part 3 lab
- Resources
 - Books
 - Online resources
 - Lab training
- 20 students selected for study camp



Study Camp

- 2 weeks in early June
- UMD
- Lectures, lab, activities
- Exams
 - Top 6 students to form US team for IChO (4 + 2 alternates)

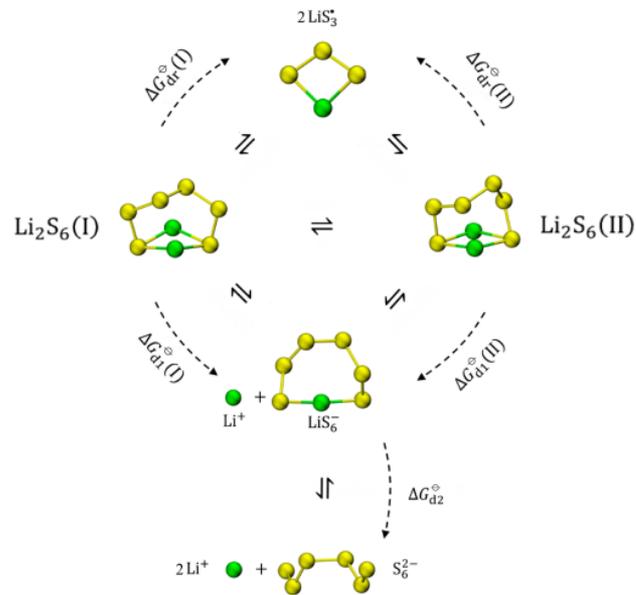




IChO

- 54th IChO in Tianjin, China (Virtual)
 - >300 students from 84 countries
- US team flew to Washington DC
 - Virtual activities, sightseeing





Chemical equilibria of Li_2S_6 , LiS_6^- , S_6^{2-} and LiS_3 in DME

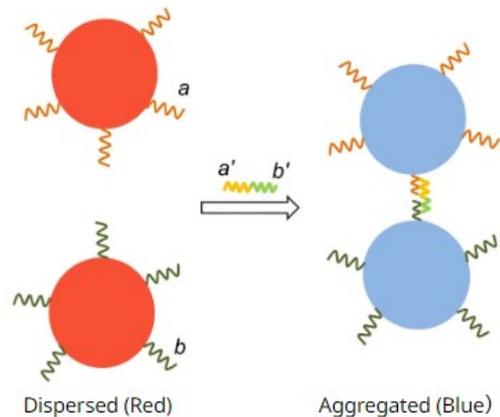


Table 4.1 Dissociation Gibbs energies (kJ mol^{-1}) of different reactions in DME (298.15 K, 1 bar)

$\Delta G_{\text{d1}}^{\ominus}(\text{I})$	$\Delta G_{\text{d1}}^{\ominus}(\text{II})$	$\Delta G_{\text{d2}}^{\ominus}$	$\Delta G_{\text{d3}}^{\ominus}(\text{I})$	$\Delta G_{\text{d3}}^{\ominus}(\text{II})$
20.68	18.92	100.55	45.13	43.37

4.8 Using the data from **Table 4.1**, **calculate** the equilibrium concentration ratio of two conformers in DME (298.15 K, 1 bar), $\frac{[\text{Li}_2\text{S}_6(\text{II})]}{[\text{Li}_2\text{S}_6(\text{I})]}$. 4.0 pt







Acknowledgements

Thank you!

