

13th Annual Clorox-Amgen Graduate Student Symposium

Friday, September 25th, 2020 (via Zoom)

Morning Session

8:30 AM **Welcome**

8:40 AM **Session I: *Catalysis & Reaction Modeling***

Clarke Palmer	Methane pyrolysis in high-temperature molten environments
Hyunjin Moon	Tuning the rate of aromatic hydrogenation by systematic variation of the surface polarity
Tsatsral Battengel	Correlating nanoscale structures and macroscopic properties of heterogeneous zeolite catalysts
Ji Qi	Atomically dispersed Re-based catalyst for selective methanol carbonylation to acetic acid
Vikram Khanna	Towards digital design of crystals

10:10 AM

Break

10:20 AM

Session II: *Materials & Interfaces*

Pavel Shapturenka	Bio-inspired structural color and light-extraction engineering via scalable photonic nanostructures
Ryan Ley	Development of III-nitride micro-light-emitting diodes for display applications
Shona Becwar	Understanding and correlating compositions, structures, and properties of novel conductive networks for energy conversion and storage applications

11:25 AM

Break

11:30 AM

Breakout Sessions with Industrial and Academic Guests

12:00 PM

Lunch Break

Afternoon Session

1:00 PM **Welcome**

1:05 PM **Session III: *Complex Fluids & Soft Materials***

Nick Sherck	Molecularly-informed field theories from bottom-up coarse-graining: A multiscale approach to soft matter formulations
Dakota Rawlings	Effect of counter-ion structure on the spatial charge carrier distribution and molecular configuration in solid-state, electrochemically-doped conjugated polymers
Beihang Yu	Using bioinspired polypeptoids to understand chain shape effects in block copolymer self-assembly
Jiamin Zhang	Probing the influence of flow on surfactant self-assembly of wormlike micelles

2:20 PM

Break

2:30 PM

Session IV: *Bioengineering*

Alex Chialastri	Developing single-cell multiomics technologies to probe early mammalian development
Chatarin Wangsanuwat	A probabilistic framework for cellular lineage reconstruction using integrated single-cell 5-hydroxymethylcytosine and genomic DNA sequencing
Jennifer Brown	Engineering stable anaerobic consortia by understanding the genomic basis for syntrophic interactions
Michael Vigers	Probing the hidden conformations of disordered proteins with electron paramagnetic resonance

3:45 PM

Break

3:50 PM

Breakout Sessions with Industrial and Academic Guests

4:20 PM

Conclusions and Awards