



THE HOWARD P. ISERMANN DEPARTMENT OF  
CHEMICAL & BIOLOGICAL ENGINEERING

presents

# DESIGN DAY 2021



special lecture by

**Gavin Towler, Ph.D.**

Vice President and Chief Technology Officer  
Honeywell Performance Materials Technologies

**30 April 2021, Friday @ 08:15 am EDT**

Meeting Link : <https://rensselaer.webex.com/rensselaer/j.php?MTID=m438bff5c8eab657d915ef4b87c13a22c>

Meeting ID : 120 834 7345

Password : CBEDesignDay2021

# Chemical Process Design Poster Presentations

## *Production of Polyethylene Oxide from Ethylene*

*The Aspentaculars; Kate Crossett, William Grasso, Mert Kificoglu, Elisabeth Schanz*

## *Production of Siloxanes from Chloromethane and a Copper-Silicon Alloy Catalyst*

*ChemE Kweens (CEK); Yvonne Armstrong, Vanessa Keating, Jackie LeBlanc, Kate Murray*

## *Synthesis of Vanillin From Guaiacol*

*Chemistree; Andrew Farese, Ben Kramer, Rachel Oehlkers, Jordan Shaffer*

## *The Production of Nylon 6 from Phenol and Hydrogen*

*Degrading Solutions; Krystal Carhart, Anissa Choiniere, Gabrielle Gentile, Kaitlyn Morris*

## *The Production of Ethanol from Corn*

*Elemental Chemistry; Chelsea Haime, Jasmeen Kaur, Leonidas Tsapatsaris, Nick Wilson*

## *Production of Methanol and Ammonia from Natural Gas*

*Endless Possibilities, LLC; Lai-Ming Cheung, Christopher Geisert, Taylor Newton, Alena Pursel*

## *Commercial Production of Alcoholic and Non-Alcoholic Kombucha*

*Evil Step CSTRs; Christina Gesele, Stuart Irwin, Justin Lam, Zachary Neidich*

## *Synthesis of Propylene Glycol from Glycerol*

*Got Energ2; Nolan Bunyaviroch, Henry Lutz, Ryan Quim, Connor Rivage*

## *Production of Isopropyl Alcohol and Hand Sanitizer Using Direct Hydration of Propylene*

*Herd Immunity; MacKenzie Grenier, Michelle Lomoz, Kyle Pelcher, Connor Schnapp*

## *Isopropyl Benzene Production*

*LZH Trio; Zain Gill, Liam Moran, Heng Wang*

## *Crystallization of Battery Grade Lithium Hydroxide Monohydrate from Lithium Containing Brine*

*MELT, Inc.; Leeanne Jones, Emma Leo, Mei Liu, Thomas Neuman*

## *Production of High-Density Polyethylene by Ziegler-Natta Process*

*Pump n Chill; William Marshall, Marvin Rios, Lauren Safee, Shiyu Yang*

## *Production of High-Density Polyethylene from Bio-Ethanol*

*Silly Little Tricks; Tahira Catten, Rachel Dwyer, Maybelle Kusumoto, Hope Stevens*

## *Industrial Manufacturing of Hand Sanitizer*

*Sodium Tired; Benjamin Carlson, Devin Gozdenovich, Christopher Li, Camille Taché*

## *Hydrogen gas formed from carbon, steam, and oxygen*

*Team Rocket; Josh Pucci, Veronica Signarino, William Smith*

## *The Gasification of Biomass for the Production of Methanol*

*Total Borons; Isabel Caplazi, Brianna Kernan, Emily Ortega, Stephanie Potash*

## *Urea Production with CO<sub>2</sub> Capturing Powered by Solar and Wind Energy*

*Ureka Inc.; Ningjing Chen, Xiaoru Li, Michael Li, Qiyao Wen*

## *Acetic Acid Production via the Cativa Process*

*We're Diene; Adam Francoeur, Kyle Loughran, Andrew Sammond, Dean Sarigumba*

## *Production of Polystyrene*

*We're Hedden Downstream; Dylan Annunziato, Nikki Schiavone, Luke Trainor, Brooks Wallace*