




Chemistry Reconnected

Friday Oct. 17, 2025 123 Mackinaw Room – University Center		
1:30 to 2:05	Shawn Hunter 	Decarbonizing the Built Environment: Why DuPont is Staying the Course?
2:10 to 2:45	Itzel Marquez 	Chemistry for clean water: ensuring water sustainability for all
2:50 to 3:30	Julia Sunderland 	Silicone Composites for Electromagnetic Interference Shielding

Decarbonizing the Built Environment: Why DuPont is Staying the Course

Shawn Hunter

Global Sustainability Director, DuPont Shelter Solutions

DuPont

The construction and operation of buildings contribute roughly 34% of CO₂ emissions globally. Despite advances in energy efficiency and decarbonization technologies, global CO₂ emissions from buildings are continuing to rise. Recent US federal actions aimed at stalling climate progress have created new headwinds to decarbonizing the built environment. Nevertheless, many organizations recognize the scientific urgency of reducing CO₂ emissions to limit global warming to +1.5 °C, and leaders across the building and construction sector are stepping up to accelerate climate action.

Looking through the lens of the building and construction market, this presentation will demonstrate why continued climate action – and driving progress against a corporate Net Zero GHG goal – remains a strategic priority for DuPont.

Chemistry for clean water: ensuring water sustainability for all

Itzel Marquez

Associate Professor School of Engineering and Technology

Central Michigan University

To ensure availability and sustainable management of water for all is one of the United Nations' Sustainable Development Goals (SDG), SDG 6. From advances in analytical techniques, that can detect contaminants at trace levels, to water treatment technologies, such as coagulation, advanced oxidation processes and membrane separations, chemistry plays a central role in achieving this goal by providing the scientific foundation for understanding, protecting, and restoring water quality.

In addition, chemistry drives innovation in sustainable materials and processes, such as low-energy desalination, biodegradable coagulants, and novel adsorbents. These solutions not only improve water quality but also address resource efficiency and environmental impacts. By integrating chemistry with engineering, policy, and community engagement, we can develop practical strategies to meet SDG 6 — ensuring clean water access without compromising the needs of future generations.

In this talk, we will discuss examples of the application of chemistry in the development of technologies for water treatment, advancing toward SDG6.

Silicone Composites for Electromagnetic Interference Shielding

Julia Sunderland

R&D Scientist in the Silicones division

Dow

Today, Julia will present why electromagnetic compatibility in electronic devices for a connected world is very important and why electromagnetic shielding material are highly needed in automotive, communication and consumer electronics applications.