Northwestern | PAULA M. TRIENENS INSTITUTE FOR SUSTAINABILITY AND ENERGY

SIX PILLARS OF DECARBONIZATION

TRANSFORM

wastes and renewable feedstocks into transportation fuels and decarbonized chemicals

PILLAR THESIS

New advanced processes and feedstocks are necessary to meet the growing demand for sustainable fuels and chemicals. The Transform Decarbonization Working Group will convene stakeholders quarterly to address critical questions in research and commercial scalability, producing insight to guide the future direction of the pillar.

PILLAR CO-LEADS

Professor Justin M. Notestein
Expertise: Sustainable chemicals/fuels via novel catalysts and materials

Professor Linsey Seitz
Expertise: Electrochemistry, catalysis, renewable energy, spectroscopy

AREA OF FOCUS

Northwestern will lead in the creation of catalytic systems for sustainable aviation fuel and decarbonized chemicals.

INTERDISCIPLINARY EXPERTISE

Interdisciplinary faculty areas of expertise include:

Communications and policy | Electrochemistry | Green chemistry | Homo/hetero/bio catalysis | Materials design and testing | Reactor design | Renewable fuels and energy | Synthetic biology

Faculty collaborators have been recognized for their academic excellence through awards and affiliations:

- American Academy of Arts & Sciences
- National Academy of Sciences
- McArthur Fellow
- 2023 Packard Fellow
- Clarivate Highly Cited Researchers
- Northwestern University Center/Core Facility Director

NORTHWESTERN'S WORLD-CLASS EXCELLENCE

Founded in 1983, the Center for Catalysis and Surface Science (CCSS) at Northwestern's Trienens Institute is a world leader in interdisciplinary research on sustainable fuels and chemical processes. CCSS is home to:

CENTER FOR CATALYSIS AND SURFACE SCIENCE

- The first-ever user facility dedicated to catalysis science in the U.S.
- $38M in sponsored research awards since 2009
- Long-standing international and industry partnerships (UniCat, Honeywell-UOP)