CENIDE & WIN Seminar Series on 2D-MATURE

DFG IRTG 2803 & NSERC CREATE

Aiping Yu

University of Waterloo

“Engineering 2D Nanomaterials for Batteries and Supercapacitors”

Date
10:00 a.m. ET / 16:00 p.m. CET

Dr. Aiping is a university research chair professor at the University of Waterloo. Being a highly cited researcher, Dr. Yu has made significant contributions to nanomaterials society and energy storage society. She has published over 240 papers, 1 book, and 2 book chapters as well as edited one book over the past 20 years. She is also listed as 2022 World’s Top 2% Scientist by John Ioannidis at Stanford and is among the 1% highly cited researchers by Web of Science for 2023. She has also been awarded a few national awards, such as Top 100 Canada's Most Powerful Women (2023), Rutherford Memorial Medal, RSC (2022), and E.W.R. Steacie Memorial Fellowship, NSERC (2020). She is striving to combat climate change with a variety of technological innovations.

To tackle the environmental challenges, renewable energy storage including batteries and supercapacitors has garnered great attention over the past decade. My group has been focused on the production and modification of graphene, MXene, and other nanomaterials for Li-ion batteries, Na-ion batteries, Zn-ion batteries, and supercapacitors, as well as battery recycling. Our strategy for nanomaterials control includes but is not limited to novel production methods, morphology control, chemical functionalization/doping, and composite structure. Our work on batteries and supercapacitors has led to over ten patents, 240 publications in peer-reviewed journals, and a few spin-off companies in Ontario.