MOMENTUM MATERIALS SOLUTIONS

UNIVERSITY OF CALGARY

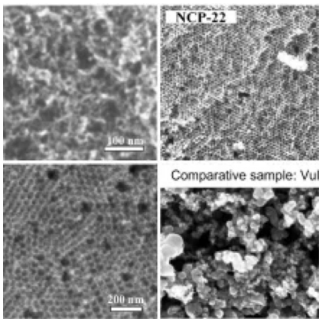
Novel Technology Enhances Hydrogen Fuel Cell Vehicles' Potential

Next generation **membrane electrode assemblies (MEAs)** improve performance, drive durability and lower operations costs for fuel cells.

The Technology

The team at Momentum Materials Solutions has developed proprietary carbon material-based solutions to improve catalyst performance within fuel cells.

Nanoporous carbon film catalyst



Nanoporous Carbon Powder MEA

They have both nanocarbon powder and nanocarbon scaffold solutions currently scaling up while expanding their manufacturing capacity. The start-up is based in Calgary, Alberta, and has received support from GRInSTEM, Alberta Innovates and NGen Canada.

Findings

MEAs produced using Momentum Materials Solutions' catalysts have test results demonstrating 10% higher performance and a doubled operational lifetime.

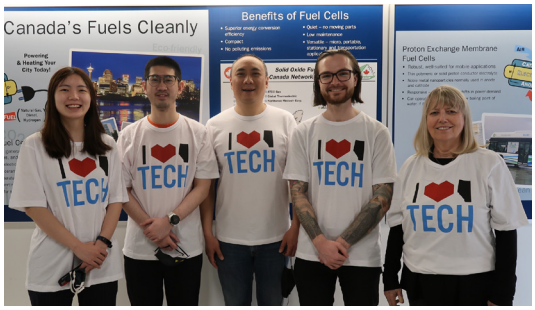
Nanoporous carbon film MEA

This doubled operational lifetime will enable cost savings of 50% for fuel cells manufacturers. This is a rapidly growing market. In March of 2021, Fortune Business Insights forecasted the global market for MEAs to reach $12.7B USD in 2028.

The Team

Momentum Materials Solutions is a spin-off from the University of Calgary. The team has grown from a core group of scientists to include support staff, business professionals, and international partners.

Arlene Ai, CEO and Co-Founder
Dr. Viola I. Birss, CSO and Co-Founder
Yuxuan Wang, Research Assistant
Tom Ruan, VP Finance
Cameron Armstrong, Business Development Lead



From left to right: Arlene Ai, Yuxuan Wang, Tom Ruan, Cameron Armstrong, and Dr. Viola I. Birss

Momentum Materials Solutions is bringing innovative materials to the PEM fuel cell market.

CANADA FIRST RESEARCH EXCELLENCE FUND
ALBERTA INNOVATES
NGen Next Generation Manufacturing Canada

For inquiries, email
info@momentummaterials.com