

# **Cipher Neutron, dynaCERT's Partner, and the University of Alberta Enter into Collaboration Discussions on Advanced Research in AEM Electrolyser Membrane Catalysts**

written by Raj Shah | July 26, 2023

July 26, 2023 ([Source](#)) – *dynaCERT Inc.* (“*dynaCERT*” or the “Company”) (TSX: DYA) (OTCQX: DYFSF) (FRA: DMJ) and its AEM Green Electrolyser partner, Cipher Neutron Inc. (“Cipher Neutron” or “CN”) and the University of Alberta (“University of Alberta”) in Canada are pleased to jointly announce that they have entered into discussions to collaborate on advanced research in AEM Electrolyser Membrane Catalysts (the “Collaboration”).

## **Collaboration on AEM Membrane Catalysts**

The Collaboration provides for the development of specialized Membrane Catalysts which can be used in the AEM Green Hydrogen Electrolysers of Cipher Neutron to further increase the superior efficiencies of Green Hydrogen production achieved by Cipher Neutron. The Research by the University of Alberta is expected to be endorsed in part by MITACS and Cipher Neutron, and the University of Alberta intends to continue with this prestigious MITACS sponsorship.

MITACS is a non-profit Canadian national research organization that, in partnerships with Canadian academia, private industry, and government, operates research and training programs in fields related to industrial and social innovation.

The University of Alberta is an ideal University in Canada to carry out this important research because it has renowned expertise in the advancement of the science of new membrane catalysts. The research will be led by Dr. Shiva Mohajernia, Assistant Professor in the Department of Chemical and Materials Engineering at the University of Alberta.

### **Dr. Shiva Mohajernia**

Dr. Shiva Mohajernia is leading the Energy Materials (“NRGMATs”) research group at the University of Alberta. The primary focus of her group’s research is centered around the design of nanomaterials and the precise modification of their surfaces with catalysts at an atomic-scale level for energy conversion applications such as those used by the AEM Green Hydrogen Electrolyser of Cipher Neutron. The investigations by NRGMATs aim to unlock the exceptional catalytic performance that results from utilizing catalysts at the atomic level. Prior to joining the University of Alberta, Dr. Mohajernia was the catalysis group leader at the University of Siegen, Germany. Her educational background is in material science and engineering, having earned her Ph.D. from the Department of Material Science and Engineering at the University of Erlangen-Nuremberg in Germany. Dr. Mohajernia’s contributions to the field have earned her several accolades, including the 2022 Catalysts Award and the 2020 International Society of Electrochemistry Award.

Dr. Shiva Mohajernia, Assistant Professor in the Department of Chemical and Materials Engineering at the University of Alberta, stated, “Cipher Neutron’s AEM technology fits perfectly with our

ongoing research at the University of Alberta for catalyst development for AEM electrolysers. We are delighted to foster PFAS-free and PGM-free disruptive AEM electrolyser technology in the province of Alberta, which will contribute to the greener and more sustainable future of Canada and the rest of the world. The University of Alberta has a long history in supporting green and sustainable technology, and now we welcome the opportunity to be a part of this transition to the Green Hydrogen Economy.

Gurjant Randhawa, President and CEO of Cipher Neutron, stated, "Cipher Neutron welcomes the collaboration with Dr. Shiva Mohajernia and the University of Alberta on its ongoing Membrane Catalyst projects. We commend the University of Alberta for its leadership in Green Hydrogen development. Our collaboration with University of Alberta is a very important step towards the evolution of new catalysts to further reduce the capital expenditures (CAPEX) and operating expenditures (OPEX) of AEM electrolysers to achieve the universal goal of low-cost Green Hydrogen."

Jean-Pierre Colin, Executive Vice President and Director of *dynaCERT* Inc., a partner of Cipher Neutron, stated, "After months of due diligence and negotiations with Dr. Shiva Mohajernia and the University of Alberta, *dynaCERT* is very pleased to congratulate its partner, Cipher Neutron, and the University of Alberta, for the conclusion of their collaboration to further advance Cipher Neutron's efficient Electrolysers. The University of Alberta is a particularly well-suited university to assist with Cipher Neutron's green hydrogen technology since there is an abundance of intellectual know-how and commitment to better the future of mankind."

### **About Cipher Neutron Inc.**

Cipher Neutron is a rapidly growing disruptive technology

company focused on AEM Electrolysers for Green Hydrogen production and Reversible Fuel Cells for power generation and Energy Storage Solutions. Cipher Neutron is a global group of scientists, engineers, technology developers, experts in hydrogen technology, investment bankers and people that have worked in hydrogen for decades. Cipher Neutron's innovative products, such as AEM Electrolysers and Reversible Fuel Cells have unique advantages over other Green Hydrogen production, power generation and energy storage solutions currently available in the global market. Please see: <https://cipherneutron.com>

***About dynaCERT Inc.***

*dynaCERT* Inc. manufactures and distributes Carbon Emission Reduction Technology along with its proprietary HydraLytics™ Telematics, a means of monitoring fuel consumption and calculating GHG emissions savings designed for the tracking of possible future Carbon Credits for use with internal combustion engines. As part of the growing global hydrogen economy, our patented technology creates hydrogen and oxygen on-demand through a unique electrolysis system and supplies these gases through the air intake to enhance combustion, which has shown to lower carbon emissions and improve fuel efficiency. Our technology is designed for use with many types and sizes of diesel engines used in on-road vehicles, reefer trailers, off-road construction, power generation, mining and forestry equipment. Website: [www.dynaCERT.com](http://www.dynaCERT.com).

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*“expect”, “project”, “intend”, “believe”, “anticipate”, “estimate” and other similar words, or statements that certain events or conditions “may” or “will” occur. In particular, information relating to the University of Alberta cannot be independently verified and information relating to Cipher Neutron Inc. and its AEM electrolyzer technologies cannot be independently verified. Although we believe that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that such expectations will prove to be correct. We cannot guarantee future results, performance of achievements. Consequently, there is no representation that the actual results achieved will be the same, in whole or in part, as those set out in the forward-looking information. Forward-looking information is based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking information. Some of the risks and other factors that could cause the results to differ materially from those expressed in the forward-looking information include, but are not limited to: uncertainty as to whether our strategies and business plans will yield the expected benefits; availability and cost of capital; the ability to identify and develop and achieve commercial success for new products and technologies; the level of expenditures necessary to maintain and improve the quality of products and services; changes in technology and changes in laws and regulations; the uncertainty of the emerging hydrogen economy; including the hydrogen economy moving at a pace not anticipated; our ability to secure and maintain strategic relationships and distribution agreements; and the other risk factors disclosed under our profile on SEDAR at [www.sedar.com](http://www.sedar.com). Readers are cautioned that this list of risk factors should not be construed as exhaustive. The forward-looking information*

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***On Behalf of the Board of dynaCERT Inc.  
Murray James Payne, CEO***

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