Is Binghamton a leader in lithium-ion battery technology?

Binghamton University has been at the forefront of lithium-ion battery technology,led by Nobel Prize winner and Distinguished Professor Stanley Whittingham. Last fall,Binghamton's New Energy New York project was awarded nearly $114 million in federal and state grants through the Build Back Better Regional Challenge.

Is Broome County the epicenter of lithium-ion battery technology?

What we know. NENY Regional Innovation Officer Per Stromhaug said there are several factors marking Broome Countyas the epicenter of this initiative. Nobel Prize winner and Distinguished Professor Stanley Whittingham put Binghamton University at the forefront of lithium-ion battery technology.

What is a lithium-ion battery factory?

It will be the first US-owned lithium-ion battery factory that uses primarily North American sources for its battery materials. The battery cells will be used to power electric cars and trucks, grid energy storage, and sensitive projects in the defense industry.

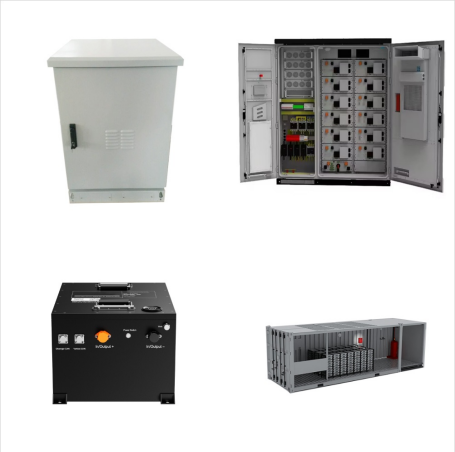
Will North America be able to develop lithium-ion batteries?

M. Stanley Whittingham,inventor of the lithium-ion battery who helped lead the proposal's development,said,"This will enable North America to develop batteriesrather than sending our technology overseas," "We can't have a supply chain dominated by any one part of the world. We can have batteries that have 'Made in America' stamped on them.

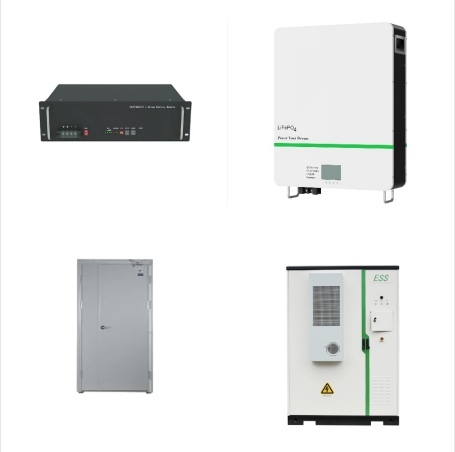
Who invented the lithium ion battery?

Perhaps the most important bit of information is that the research was led by M. Stanley Whittingham,sometimes known as the "father of the lithium-ion battery." In 2019,he shared the Nobel Prize in chemistry with John Goodenough and Akira Yoshino for their work on lithium-ion technology.

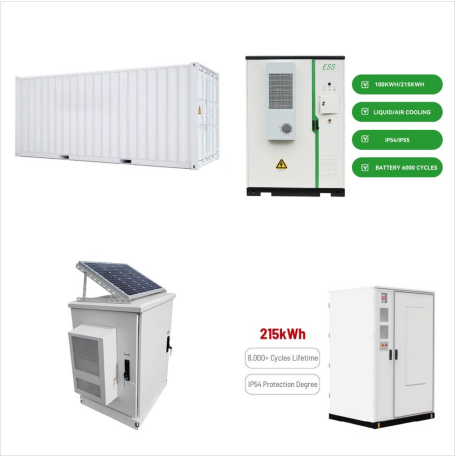
LITHIUM ION BATTERY BINGHAMTON



Exxon manufactured Whittingham's lithium-ion battery in the 1970s, based on a titanium disulfide cathode and a lithium-aluminum anode. [10] The battery had high energy density and the diffusion of lithium ions into the titanium disulfide cathode was reversible, making the battery rechargeable. In addition, titanium disulfide has a particularly

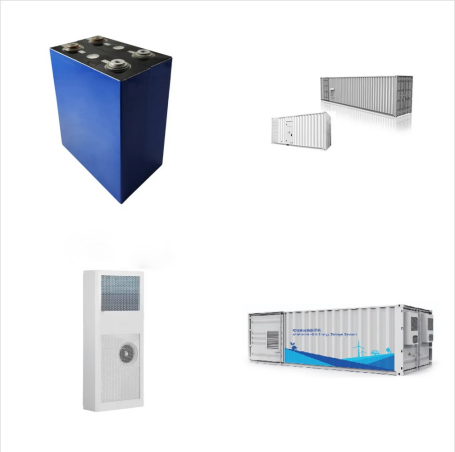


Binghamton University is investing heavily in emerging energy storage technology related to Li-ion batteries. While our researchers are busy creating the future energy solutions, consumer grade lithium batteries are plentiful and present hazards the University must manage. To best prevent Lithium-Ion Battery related fires, EH& S urges the

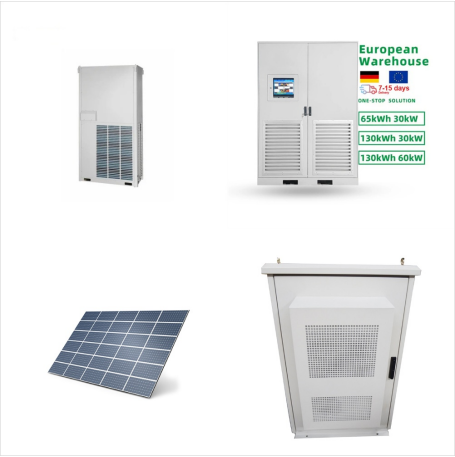


The NENY Storage Engine was one of sixteen national finalists for this designation across the country, out of an original pool of 188. The proposal came from the NENY project, a coalition led by Binghamton University, a leader in lithium-ion battery research, in a region that has become renowned for its battery manufacturing capabilities.

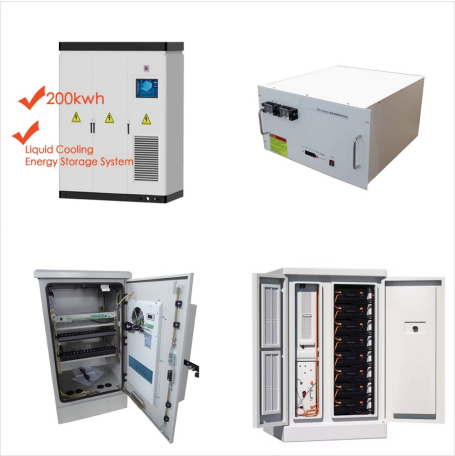
LITHIUM ION BATTERY BINGHAMTON



Binghamton University submitted its entry to New York's Clean Energy Competition. It was one of dozens of entrants, with a winner receiving $75 million. BU plans to build a lithium-ion battery facility in Endicott, and, there's good news.

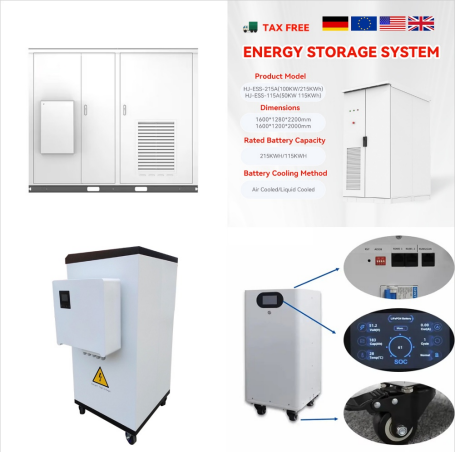


Binghamton University will develop a battery technology and manufacturing center in an Opportunity Zone in Endicott. Additional projects will support the battery industry and its supply chain. North America to develop batteries rather than sending our technology overseas," said Whittingham, an inventor of the lithium-ion battery who

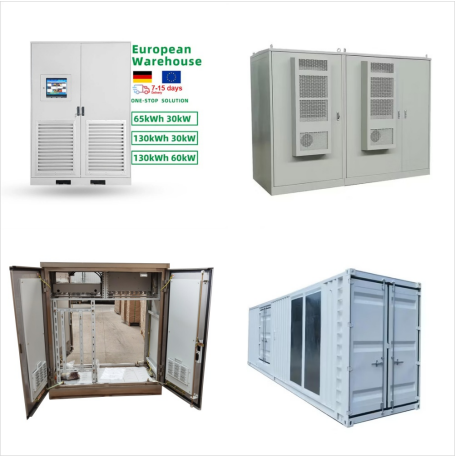


Her research interests focus on lithium-ion battery applications, including reliability testing, lifetime modeling and degradation analysis; battery management strategies related to charging, aging and cell imbalances; and safety analysis. Education. PhD, Mechanical Engineering, University of Maryland, College Park (2021)

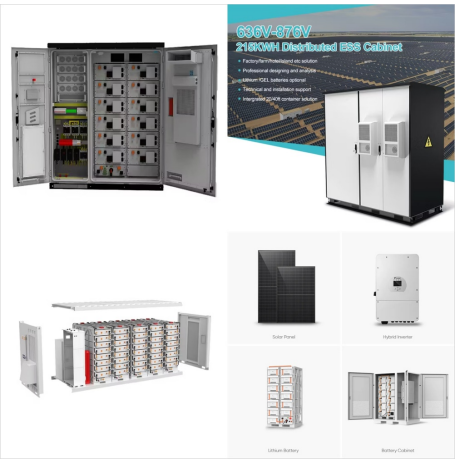
LITHIUM ION BATTERY BINGHAMTON



Lead organization: Binghamton University. Region of service: Southern Tier of New York . Competitive advantage: The Southern Tier of New York is home to a robust legacy of American manufacturing and is now transforming itself into the nation's advanced battery research hub.This engine is anchored by Binghamton University, the home university of Stanley Whittingham, a?|

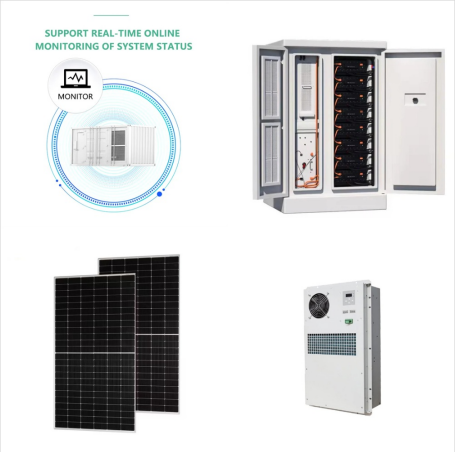


Project areas include broadening the scope from one of regional recovery to advancing the U.S. as a global competitor in the lithium-ion battery space, enlarging the focus from battery cell manufacturing to the entire battery lifecycle and supply chain, and expanding the supported region, core consortium members and external partnerships.

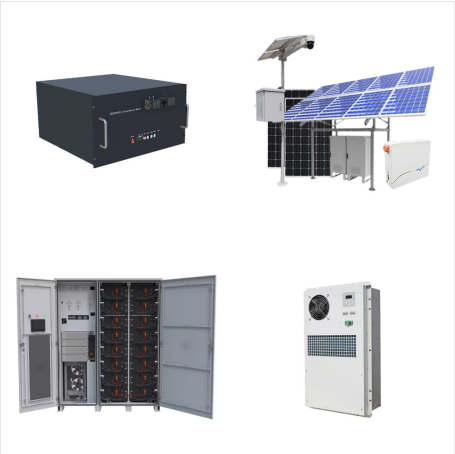


ALBANY - An effort to build an lithium-ion battery factory in Endicott got another jolt Monday when the federal government granted it one of an early awards through a federal stimulus package.

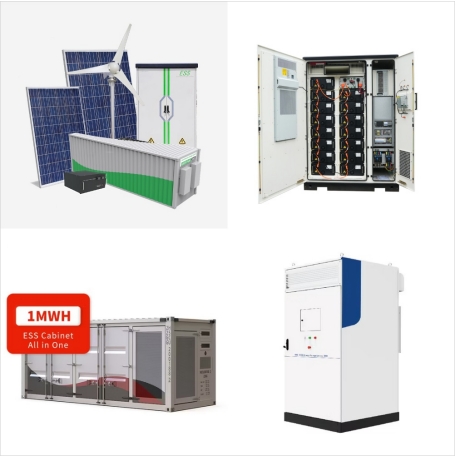
LITHIUM ION BATTERY BINGHAMTON



NENY builds on the research of Distinguished Professor M. Stanley Whittingham, who received the Nobel Prize in Chemistry in 2019 for his work in the development of lithium-ion batteries, a a?|

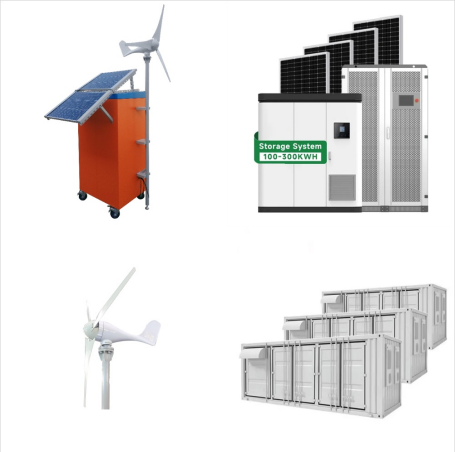


Binghamton University, Binghamton, NY, USA. 185M. Stanley Whittingham Lecture. described these in a presentation to the Royal Society in London in . The origins of the lithium-ion battery are intimately associated with . the discovery and development of fast ion transport of ions in solids. Whereas, Volta originated the study of batteries

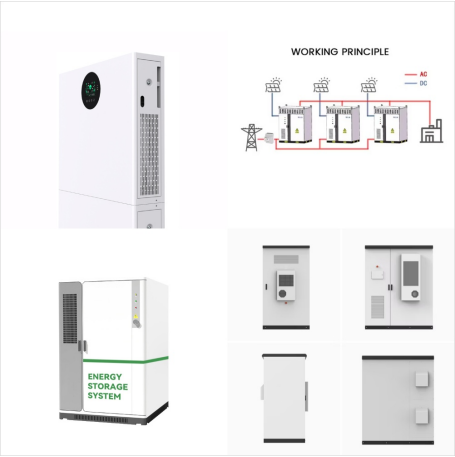


Binghamton Distinguished Professor Stanley Whittingham won the 2019 Nobel Prize winner in chemistry for his role in lithium-ion battery research, and the university's research helped launch a

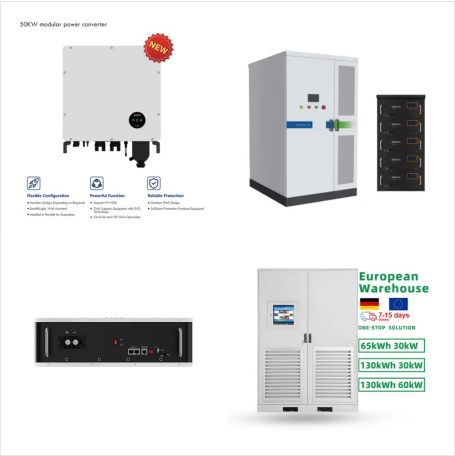
LITHIUM ION BATTERY BINGHAMTON



Growth of Lithium-Ion Battery (LIBs) in consumer electronics and the electric vehicle fleet has highlighted the need to address recycling issues. Recycling of spent LIBs is in its infancy and less than 5% of LIBs are recycled globally. LIBs are manufactured with per- and polyfluoroalkyl substances (PFAS). PFAS are persistent, mobile, and toxic environmental contaminants. Little a?|

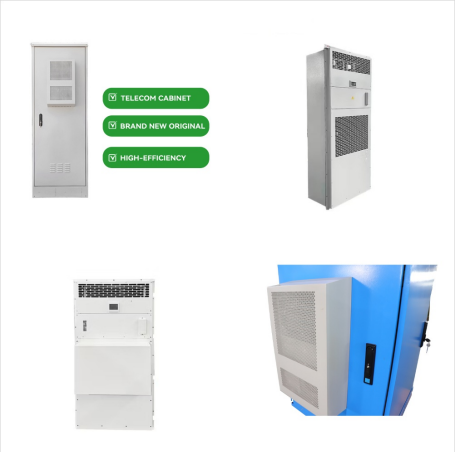


Binghamton battery project named one of 10 NSF Innovation Engines in the nation who was awarded the Nobel Prize in Chemistry in 2019 for his work in developing the lithium-ion battery in the

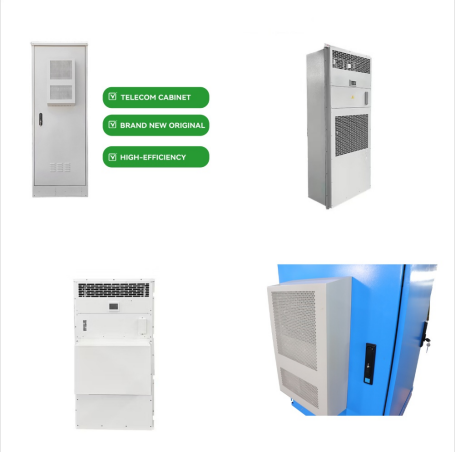


Nobel Prize winner and Distinguished Professor Stanley Whittingham put Binghamton University at the forefront of lithium-ion battery technology. Battery manufacturing facilities have emerged

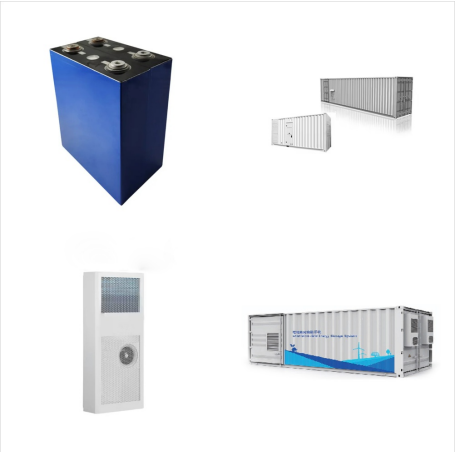
LITHIUM ION BATTERY BINGHAMTON



The event series begins with an innovation networking reception at the Koffman Southern Tier Incubator (October 17), followed by NY-BEST's Annual Fall Energy Storage Technology and Innovation Conference (October 18), and is capped by the Lithium-Ion Battery Safety Workshop organized by Binghamton University's S3IP, BAE, and IEEE.

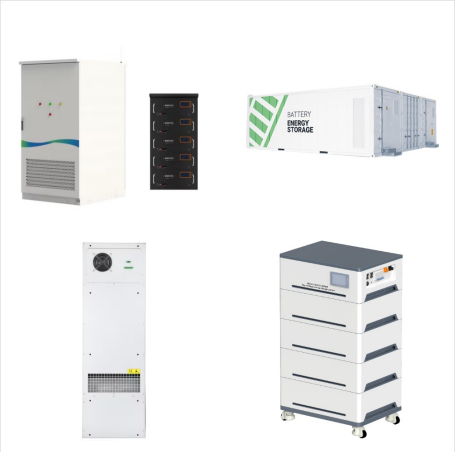


901 Upper Front St., Binghamton, NY 13905 Accepts all household batteries: alkaline, button batteries and rechargeable batteries. Collection container is located in the main entrance lobby on left side. Broome County Library 185 Court St., Binghamton, NY 13901

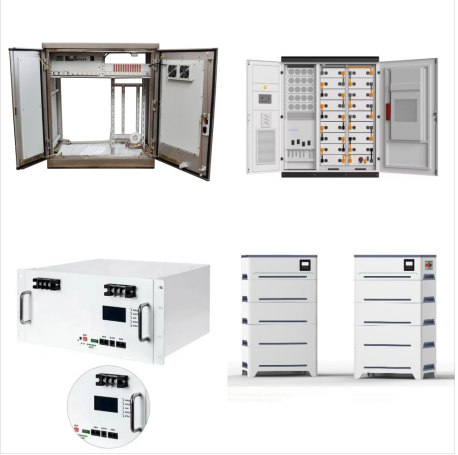


Whittingham, a Distinguished Professor at Binghamton University, won the 2019 Nobel Prize in Chemistry for his role in the invention of the lithium-ion battery, the power units now central to

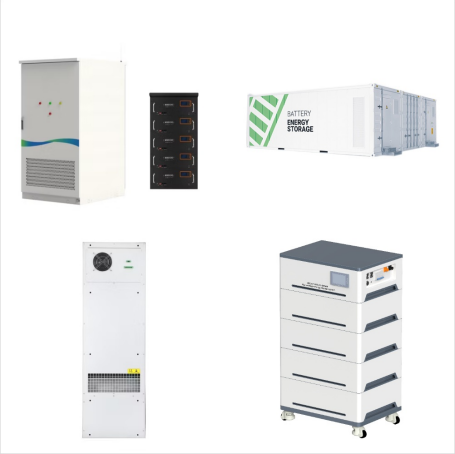
LITHIUM ION BATTERY BINGHAMTON



Whittingham was recently awarded the Nobel Prize in Chemistry for his development of lithium-ion batteries. He and his team discovered that holding lithium ions between plates of titanium sulfide created electricity. The lightweight lithium-ion batteries power laptops, tablets, cellphones and most electric cars.

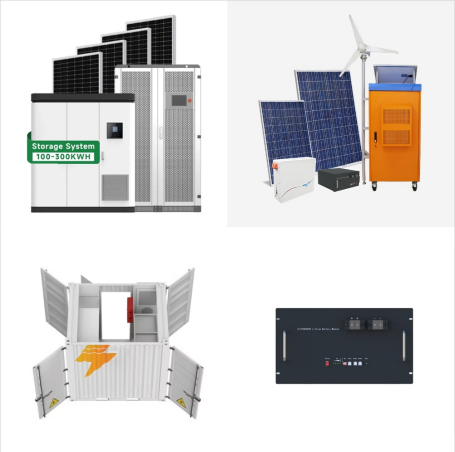


iM3NY is a product of Broome County, born of a collaboration between Dr. Upreti and Binghamton University Distinguished Professor Stanley Whittingham, a Nobel laureate for his work on lithium-ion



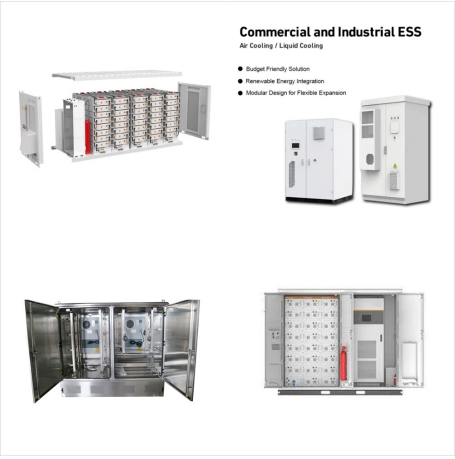
Governor Hochul Announces Nearly $114 In Federal and State Funding to Create First-In-Class Battery-NY at Binghamton University. September 2, 2022. M. Stanley Whittingham, inventor of the lithium-ion battery who helped lead the proposal's development,

LITHIUM ION BATTERY BINGHAMTON



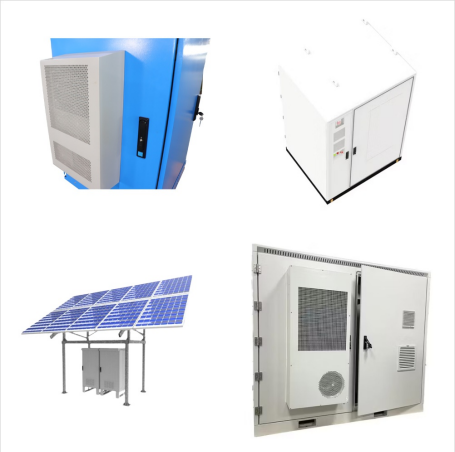
Lithium-ion battery facility at former Gannett building in Johnson City. In January, the Upstate New York Energy Storage Engine, led by Binghamton University, secured an initial $15 million in

National Science Foundation (NSF) officials joined Binghamton University to officially launch the Upstate New York Energy Storage Engine. who received the Nobel Prize in Chemistry in 2019 for his work in the development of lithium-ion NSF designation joins the $63.7 million awarded through the BBBRC in September 2022 and the designation



Later, Goodenough built on Whittingham's work to use metal oxides and higher, 4-volt materials. Yoshino expanded on that work, providing a safe carbon anode to replace lithium metal and developing the first commercial lithium-ion battery. The key word in describing this chemistry is "intercalation," Whittingham says.

LITHIUM ION BATTERY BINGHAMTON



Binghamton's prominence in the industry can be traced to Distinguished Professor M. Stanley Whittingham, who won the 2019 Nobel prize in chemistry for his critical role in developing lithium-ion