MXene electrodes for energy storage in batteries

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Ph.D Candidacy Exam

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Wednesday 7th April 1:00pm

Zoom Link:

https://drexel.zoom.us/j/257682353

MXenes are a recently discovered family of two-dimensional, 2D, transition metal carbides, nitrides and carbonitrides that have shown a lot of promise in the field of energy storage with applications ranging from high capacity anodes for lithium, sodium, potassium and aluminum ion batteries, supercapacitors and catalyst for hydrogen evolution among several others..

In this talk, I will mainly focus on how MXene can be used as electrodes in batteries for energy storage and how parameters like MXene chemistry, the ratio of transition metal to carbon or nitrogen, its morphology, etc. affect the overall battery performance. I will also briefly discuss how MXenes apart from their conventional use as electrodes can also be used in tandem with other components in batteries to further enhance the overall battery performance.