



Examination of the Pseudocapacitance Properties of MXenes

Tamia Bowers

Department of Engineering, University of Maryland, Baltimore MD

MXenes are a next generation 2D nanostructured compound in capacitive energy-storage materials that have gained attention due to highly capacitive nature, however their pseudocapacitive behaviors are not well understood due to lack of understanding of the functioning mechanisms. Due to the technical challenges of synthesizing MXenes the exploration of its pseudocapacitive performance is actively conducted from a computational perspective. In this observational work, an exploration of the properties that influence these pseudocapacitive behaviors as well as general study methods utilized to examine MXenes are interpreted for the purposes of better understanding current methods of development and identifying areas lacking in understanding.