MXenes conduct electricity like metals, but they are nanometer (one billionth of a meter) thin flakes like graphene. They can also be dispersed in water like clay.

CAPABILITIES:

- Store energy much faster than carbon and other materials used in current batteries and supercapacitors
- Protect our electronics (cell phones, etc.) from electromagnetic noise and also protect our credit card information from being stolen
- Purify water and produce drinking water from salt water
- Sense dangerous species in air
- Remove toxic heavy and radioactive elements from water
- Treat cancer
- Make wearable kidney a reality
- Increase strength of plastics, metals and ceramics
- Create energy storing windows that can change color when a small voltage is applied
- Generate printable antennas for 5G communication and Internet of Things
- Enable a new generation of flexible and printable electronic and optoelectronic devices

DID YOU KNOW?

- MXene inks can be printed onto almost any surface and they don’t require any additives — just disperse MXene flakes in water and print, stamp, paint or infiltrate with it.
- MXenes come in a variety of colors. They can be produced as single flakes/layers of one nanometer in thickness, as well as films, powders and even fibers.
MXene inks can be printed onto almost any surface and they don't require any additives — just disperse MXene flakes in water and print, stamp, paint or infiltrate with it.