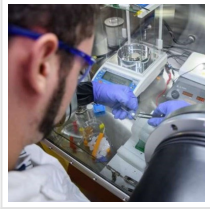


Light-Emitting Mxene Quantum Dots



2021-05-29

In a new publication, researchers review light-emitting MXene quantum dots.

In a new publication from [Opto-Electronic Advances](#), Researchers led by Professor Jeongyong Kim at the Department of Energy Science, [Sungkyunkwan University](#), Suwon, Republic of Korea review light-emitting MXene quantum dots.

MXenes have found wide-ranging applications in energy storage devices, sensors, catalysis, etc. owing to their high electronic conductivity and wide range of optical absorption. However, the absence of semiconducting MXenes has limited their applications related to light emission.



Synthesis methods of light-emitting MQDs.

Extensively reviewing current relevant research, the authors summarise recent advances in MXene quantum dot (MQD) research on the synthesis, optical properties and applications of MQDs as light emitting quantum materials. Research has shown that quantum dots (QDs) derived from MXene (MQDs) not only retain the properties of the parent MXene but also demonstrate significant improvement on light emission and quantum yield.

The authors provide an overview of light emitting MQDs and their synthesis methods, optical properties, and applications in various optical, sensory, and imaging devices. Future

prospects for light emitting MQDs are also discussed to provide insight to help further advance research.

Read the [original article](#) on EurekAlert.