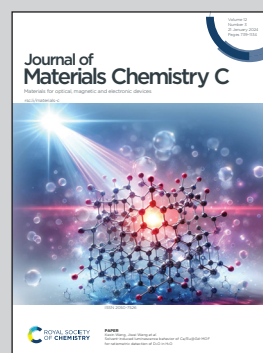


Showcasing research from the research group of
Prof. Ju Han Lee at University of Seoul, South Korea.

Third-order optical nonlinearities of Nb₄C₃ MXene and its
application as an ultra-broadband mode-locker

The nonlinear refractive index and absorption coefficient of Nb₄C₃ MXene were systematically investigated using open and closed-aperture Z-scan analysis in the short-wavelength infrared band. The saturable absorption and self-defocusing properties were observed over a broad wavelength range including 1.5 and 1.9 μm , which are suitable for the implementation of ultra-broadband saturable absorbers to generate ultrafast mode-locked pulses in fiber ring cavities.

As featured in:



See Ju Han Lee *et al.*,
J. Mater. Chem. C, 2024, 12, 893.