



Showcasing research from the Physics Department of Politecnico di Milano, Italy; Centre of Nano Science and Technology at Italian Institute of Technology in Milan, Italy; Trinity College Dublin, Ireland; and Catalan Institute of Nanoscience and Nanotechnology, Barcelona, Spain.

Long lived photogenerated charge carriers in few-layer transition metal dichalcogenides obtained from liquid phase exfoliation

Charge dynamics, from photogeneration (femtoseconds) to recombination (nanoseconds), are studied on few-layer molybdenum disulfide and tungsten disulfide by combining spatiotemporal ultrafast optical spectroscopy and transient absorption techniques. Unusually long carrier lifetimes are ascribed to stabilization at the flake edges, bearing the scope for efficient light harvesting.

### As featured in:



See Floriana Morabito, Christoph Gadermaier *et al.*, *Nanoscale Adv.*, 2024, **6**, 1074.