# Supplementary Materials

# Thermo-Optical Characterization of Therminol55 Based MXene–$Al_2O_3$ Hybridized Nanofluid and New Correlations for Thermal Properties

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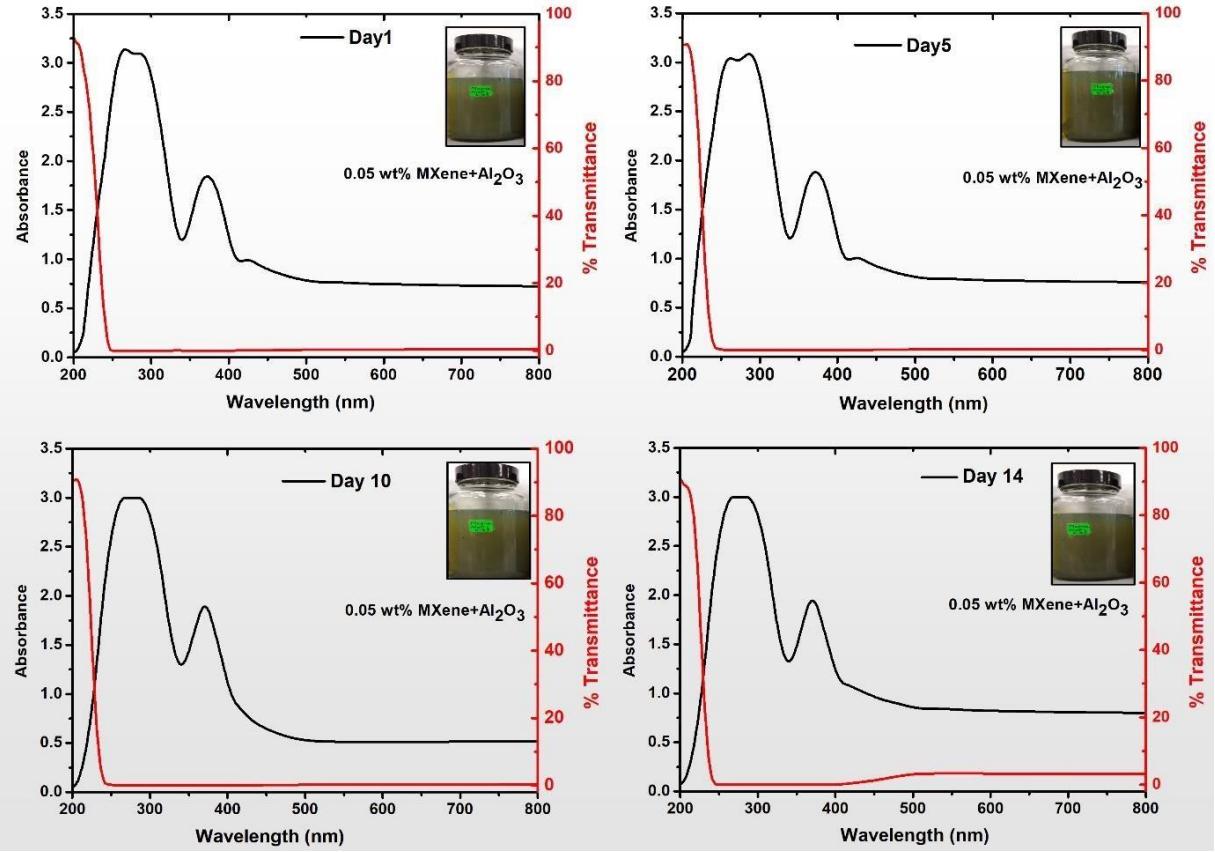


**Figure S1.** Absorbance and transmittance spectra of TH55/MXene+$Al_2O_3$ nanofluids as a function of wavelength from day 1 to day 14 for 0.05 wt% of MXene+$Al_2O_3$.

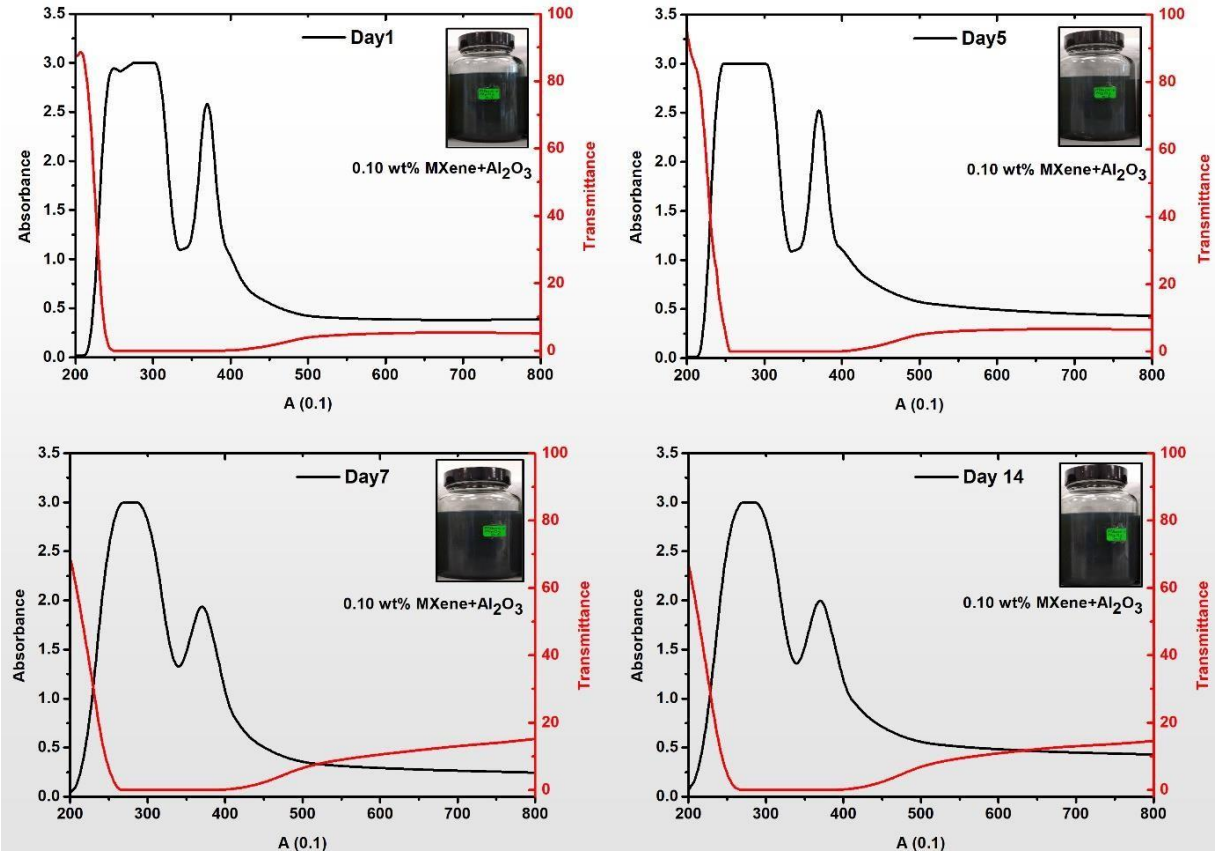


**Figure S2.** Absorbance and transmittance spectra of TH55/MXene+$Al_2O_3$ nanofluids as a function of wavelength from day 1 to day 14 for 0.10 wt% of MXene+$Al_2O_3$.

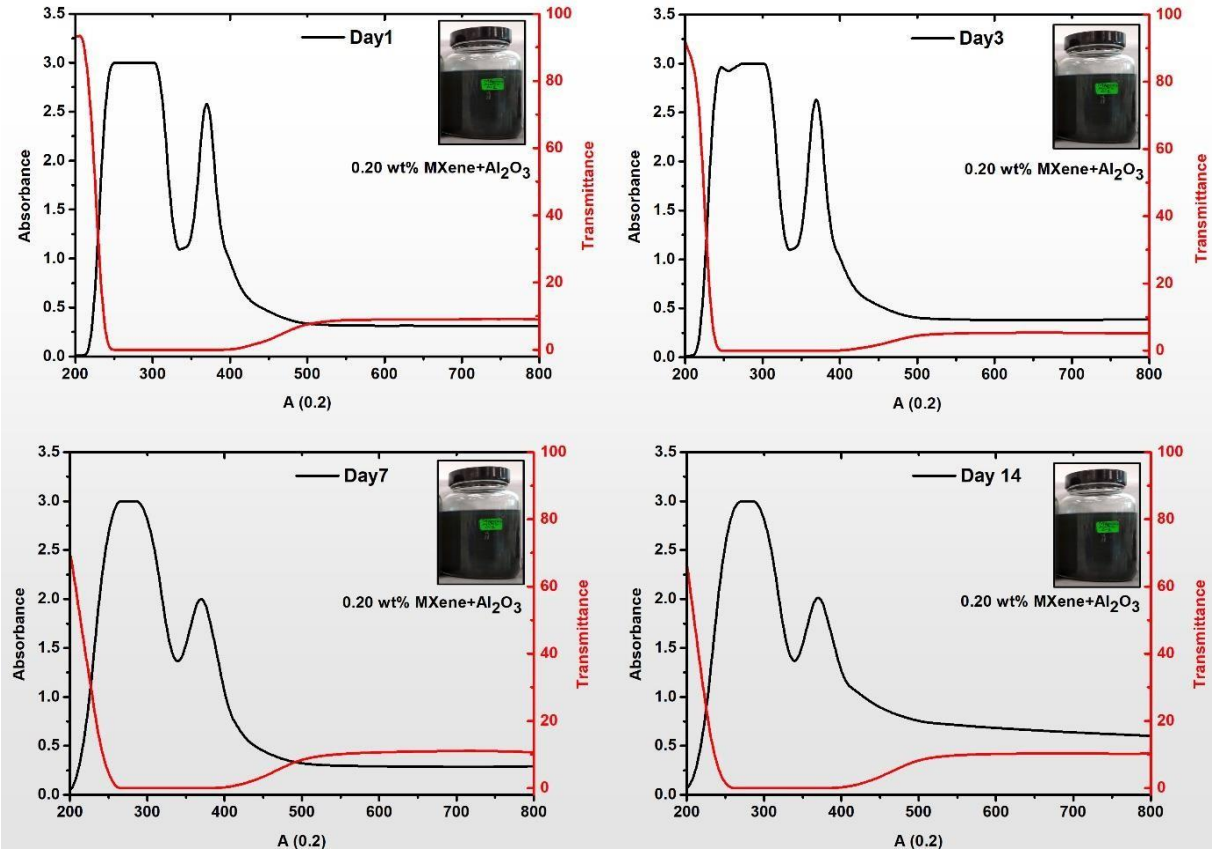


**Figure S3**. Absorbance and transmittance spectra of TH55/MXene+$Al_2O_3$ nanofluids as a function of wavelength from day 1 to day 14 for 0.20 wt% of MXene+$Al_2O_3$.