

Supporting Information for NJC:

A green strategy toward preparation of poly(vinyl chloride) nanocomposites reinforced with MnO₂@layered double hydroxide nanohybrid as efficient UV shielding materials

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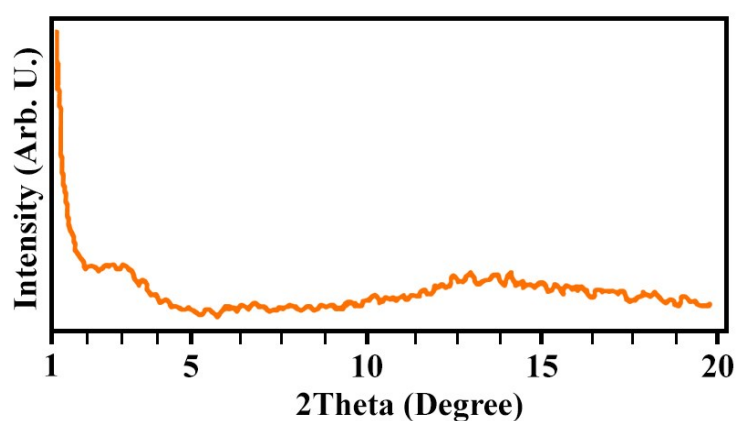


Fig. S1 Low angle XRD of M-MnO₂@D-LDH (M-MnO₂ nanorods: Methionine modified MnO₂ nanorods, D-LDH: Diacid modified layered double hydroxide).

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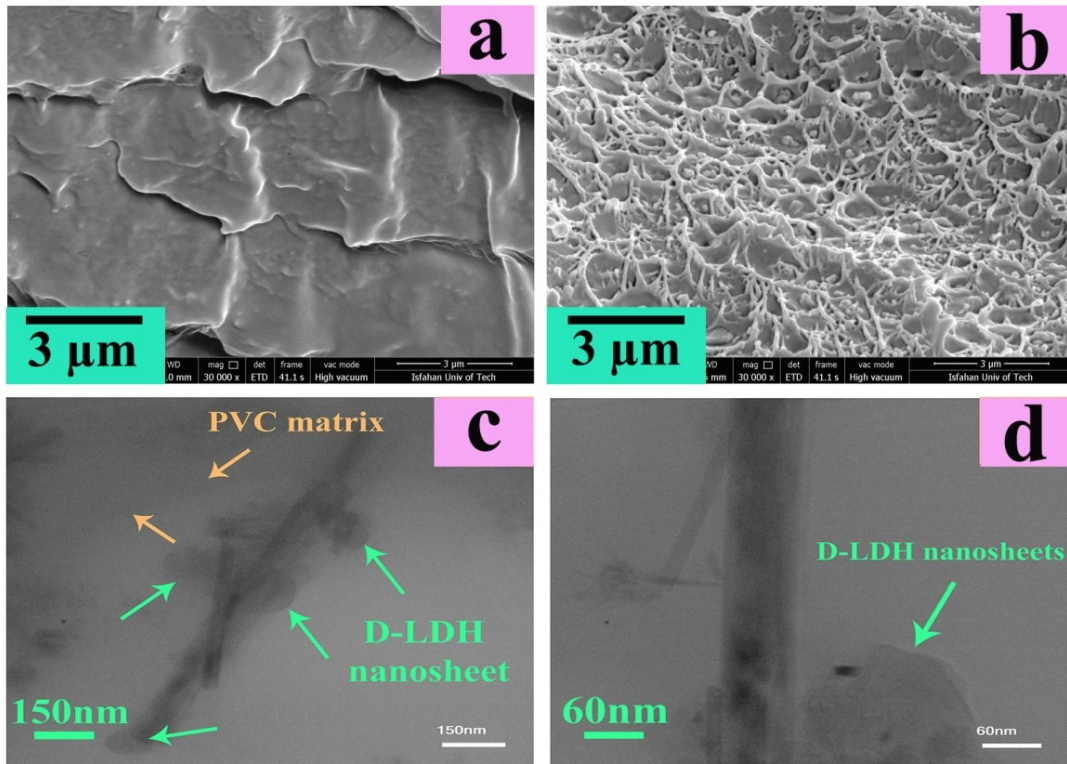


Fig. S2 Cross-sectional FESEM images of (a) PVC and (b) PVC/M-MnO₂@D-LDH nanocomposite-10. (c and d) TEM images of PVC/M-MnO₂@D-LDH nanocomposite-15 [PVC: Poly(vinyl chloride), M-MnO₂ nanorods: Methionine modified MnO₂ nanorods, D-LDH: Diacid modified layered double hydroxide].

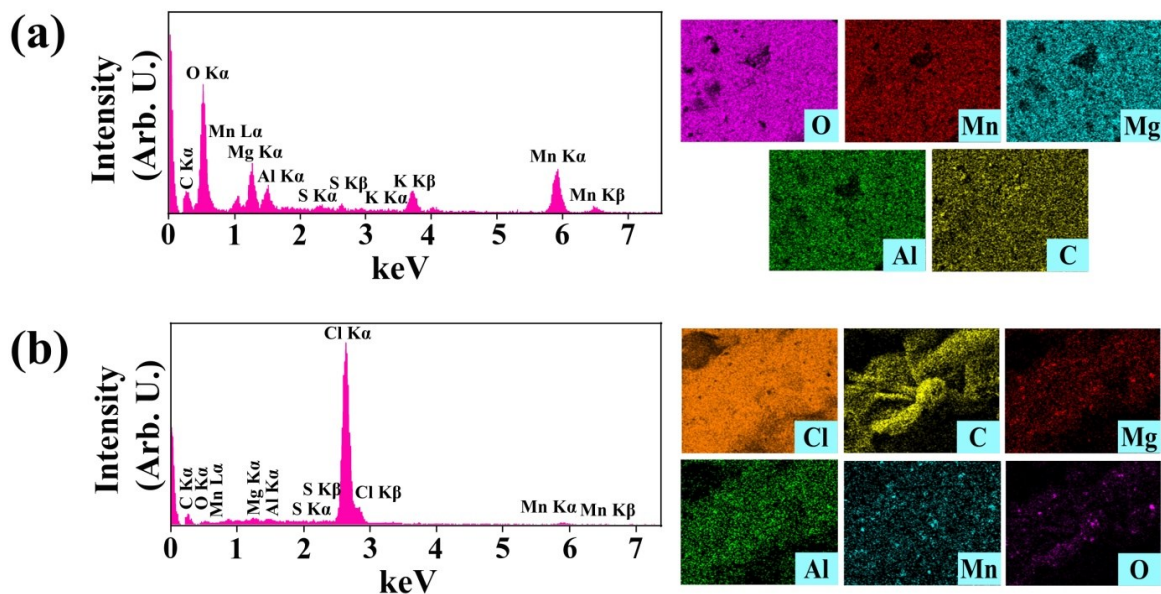


Fig. S3 EDX spectrum and elemental mapping of (a) M-MnO₂@D-LDH nanohybrid and (b) PVC/M-MnO₂@D-LDH nanocomposite-15 [PVC: Poly(vinyl chloride), M-MnO₂ nanorods: Methionine modified MnO₂ nanorods, D-LDH: Diacid modified layered double hydroxide].

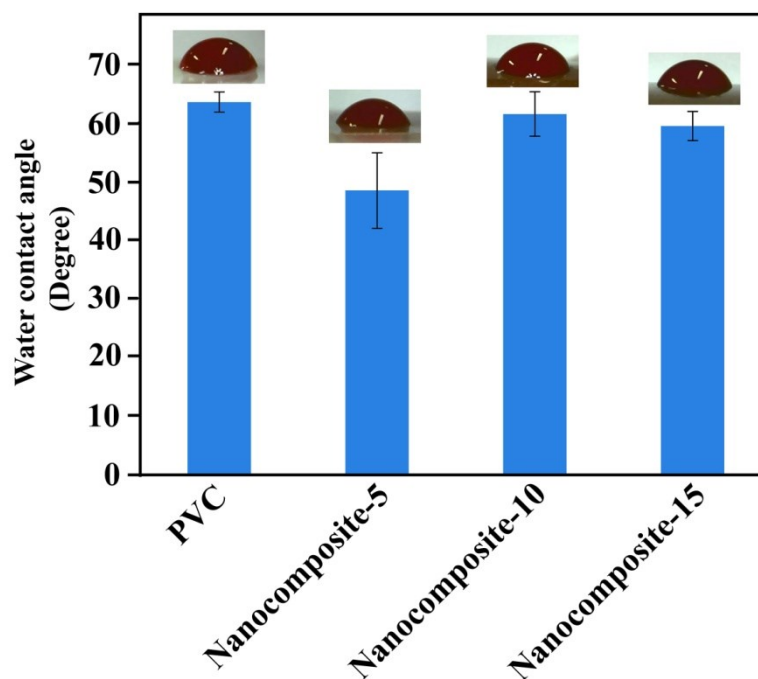


Fig. S4 Water contact angles of pure PVC and prepared PVC/M-MnO₂@D-LDH nanocomposites [PVC: Poly(vinyl chloride), M-MnO₂ nanorods: Methionine modified MnO₂ nanorods, D-LDH: Diacid modified layered double hydroxide].