

Supplementary Information

Zn₂Al Layered Double Hydroxides Intercalated with Nitrate and *p*-Aminobenzoate as Ultraviolet Protective Agents in Low-Density Polyethylene Nanocomposites and Natural Insulating Oils

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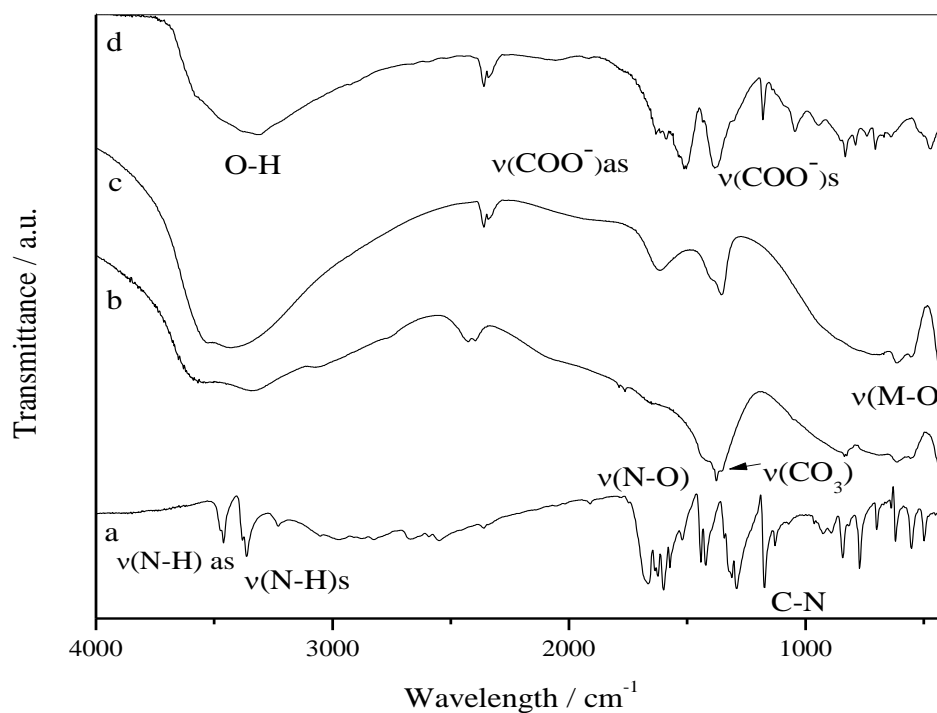


Figure S1. FTIR spectra of (a) PABA; (b) Zn₂Al-NO₃; (c) Zn₂Al-Cl and (d) ZnAl-N-AB.

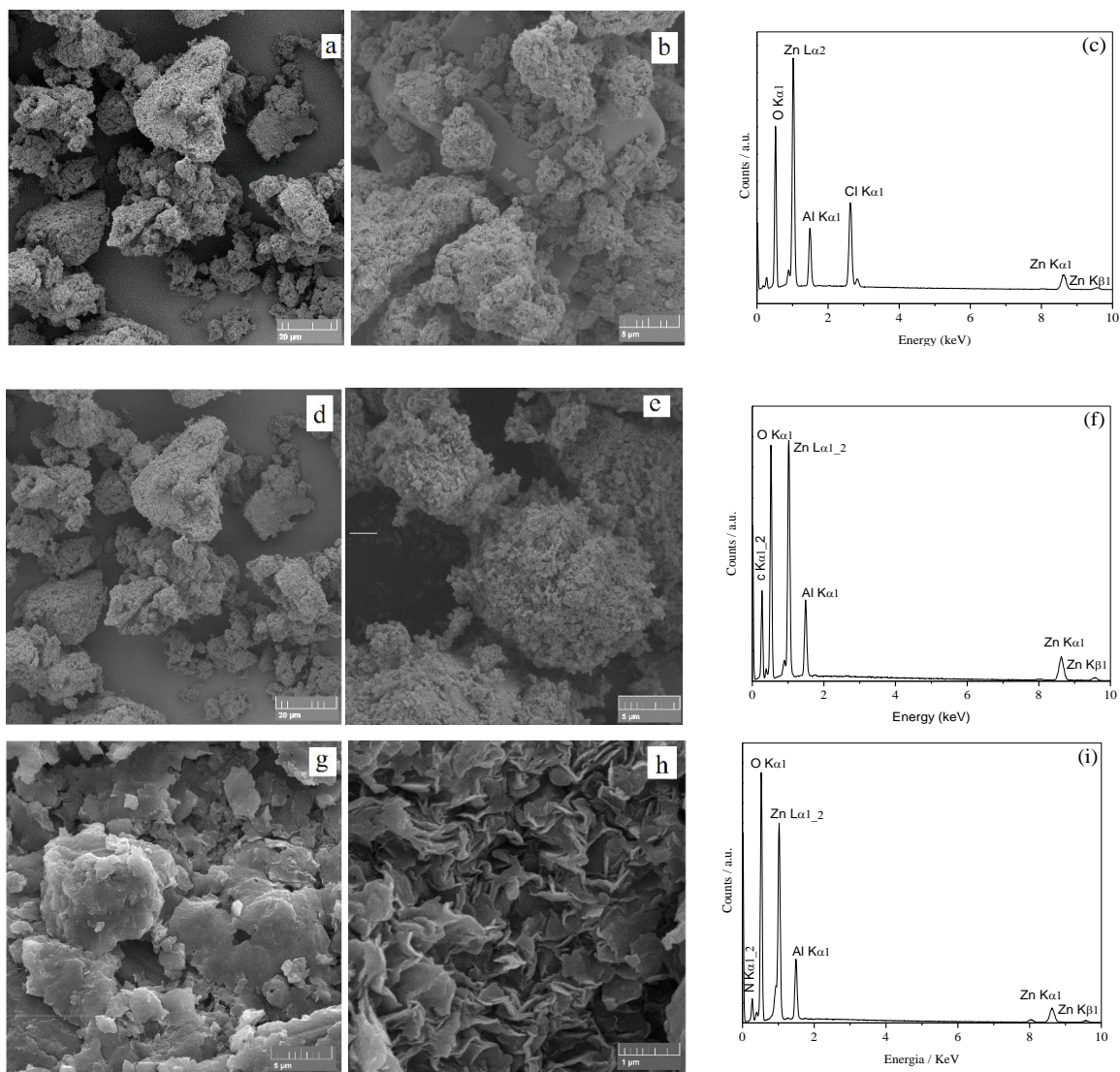


Figure S2. SEM images (left and middle) and EDS spectra (right) of (a-c) Zn₂Al-Cl; (d-f) Zn₂Al-N-AB and (g-i) Zn₂Al-N LDH.

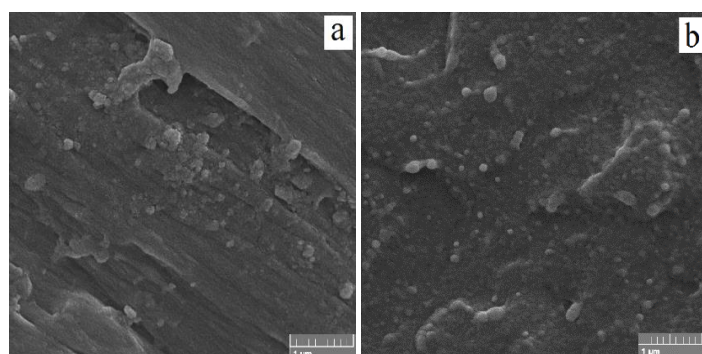


Figure S3. (a) SEM images of LDPE/LDH Zn₂Al-AB 4 wt.% (50,000 \times); (b) LDPE/LDH Zn₂Al-N 4 wt.% (50,000 \times).

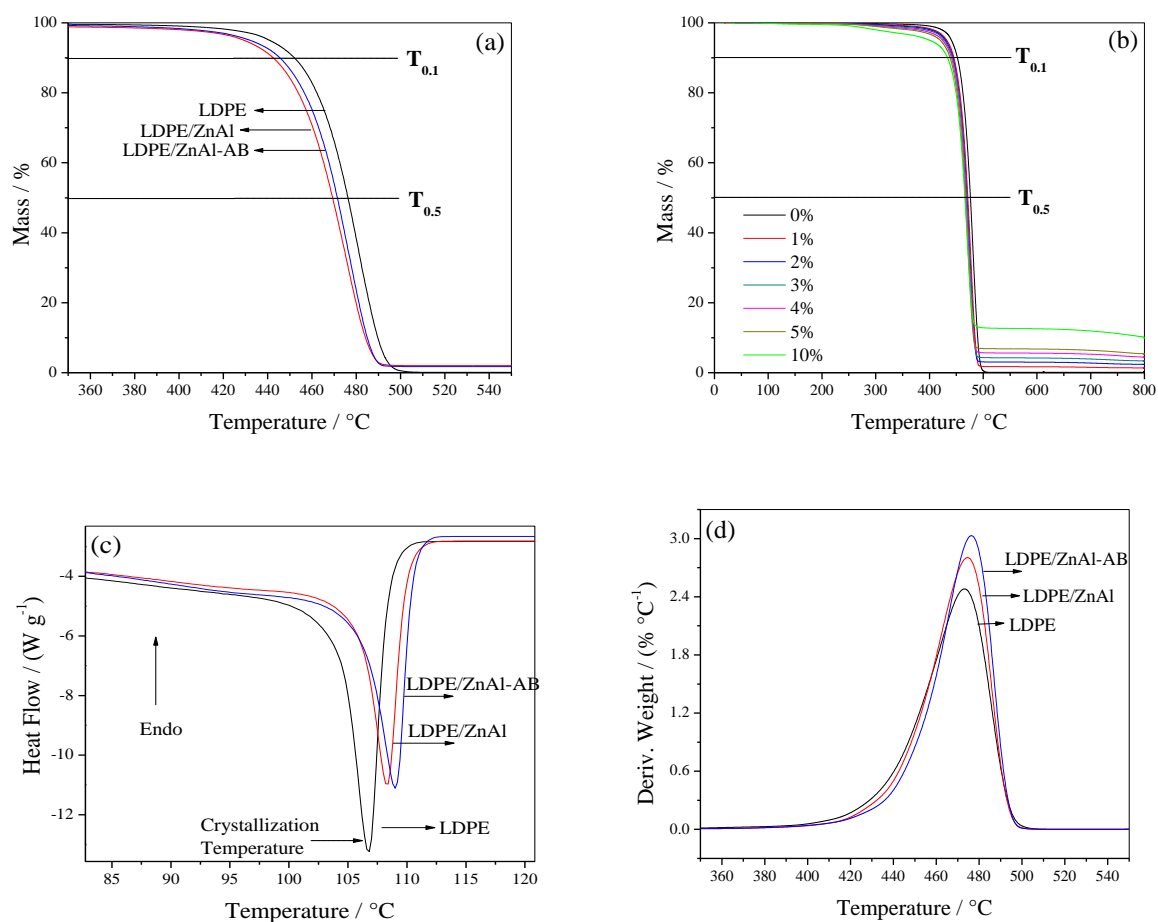


Figure S4. TGA analysis of (a) LDPE, LDPE/Zn₂Al-NO₃ 1 wt.%, LDPE/Zn₂Al-N-AB 1 wt.%; (b) LDPE, LDPE/Zn₂Al-N-AB (1-5 and 10 wt.%); (c) DSC analysis of LDPE, LDPE/Zn₂Al-NO₃ 1 wt.%, LDPE/Zn₂Al-N-AB 1 wt.% and (d) DTG analysis of LDPE, LDPE/Zn₂Al-NO₃ 1 wt.%, LDPE/Zn₂Al-N-AB 1 wt.%.

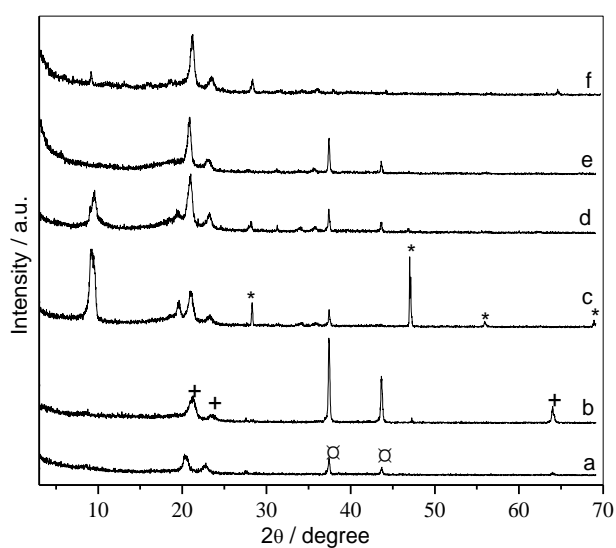


Figure S5. X-ray diffraction patterns of (a) LDPE; (b) LDPE/PABA; (c) LDPE/Zn₂Al-N 5 wt.%; (d) LDPE/ZnAl-N 5 wt.% after weathering for 300 h; (e) LDPE/Zn₂Al-N-AB 5 wt.% and (f) LDPE/Zn₂Al-N-AB 5 wt.% after weathering for 300 h. *: Si as internal standard; +: LDPE; ⌘: Al sample holder.