Supplementary materials

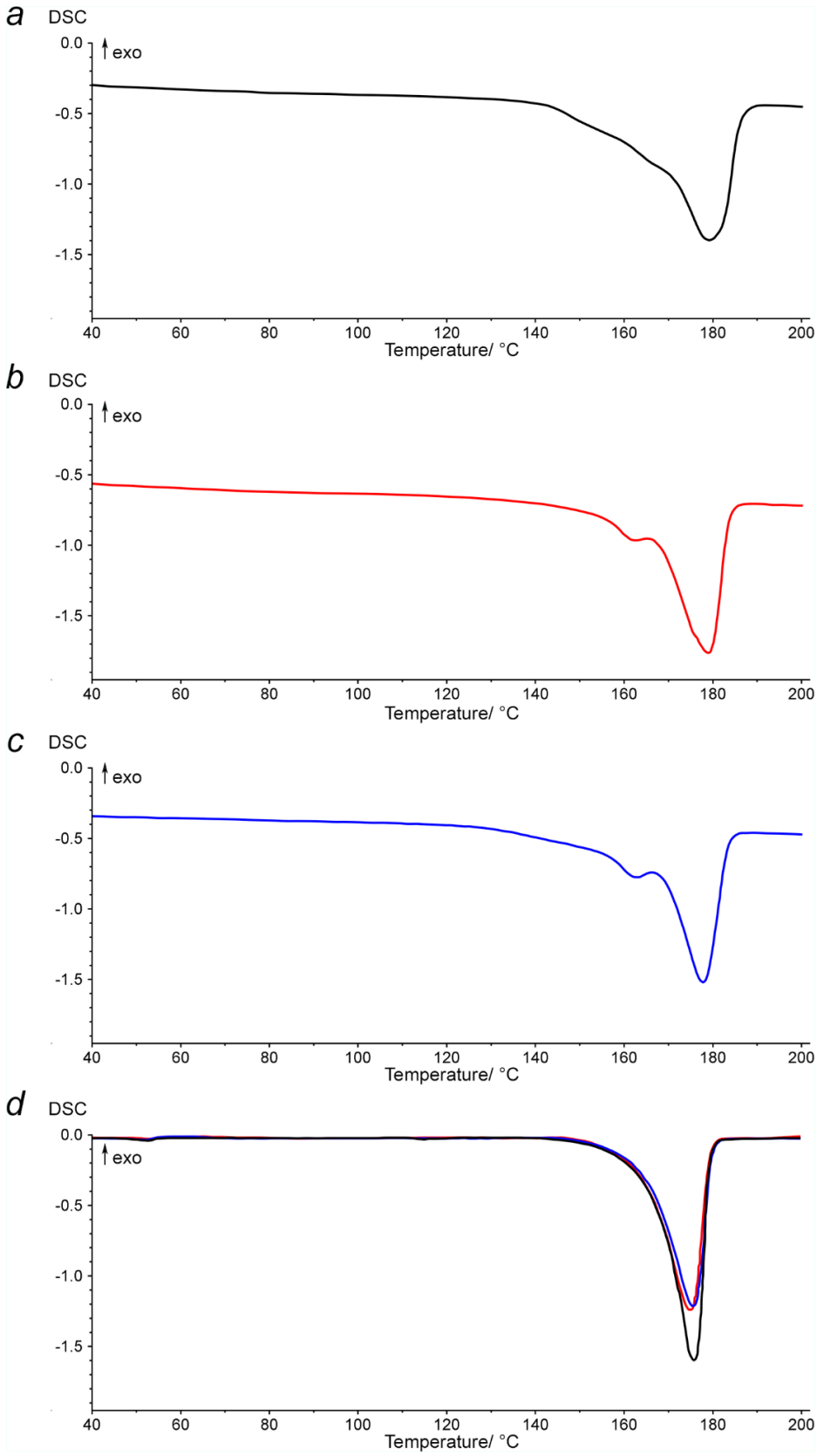


Figure S1. DSC measurements of the (***a***) film made of pure PHB; (***b***) film made of composite PHB-MNP; (***c***) film made of composite PHB-MNP/GO; (***d***) scaffolds made of pure PHB (black line), scaffolds made of composite PHB-MNP (red line) and scaffolds made of composite PHB-MNP/GO (blue line).

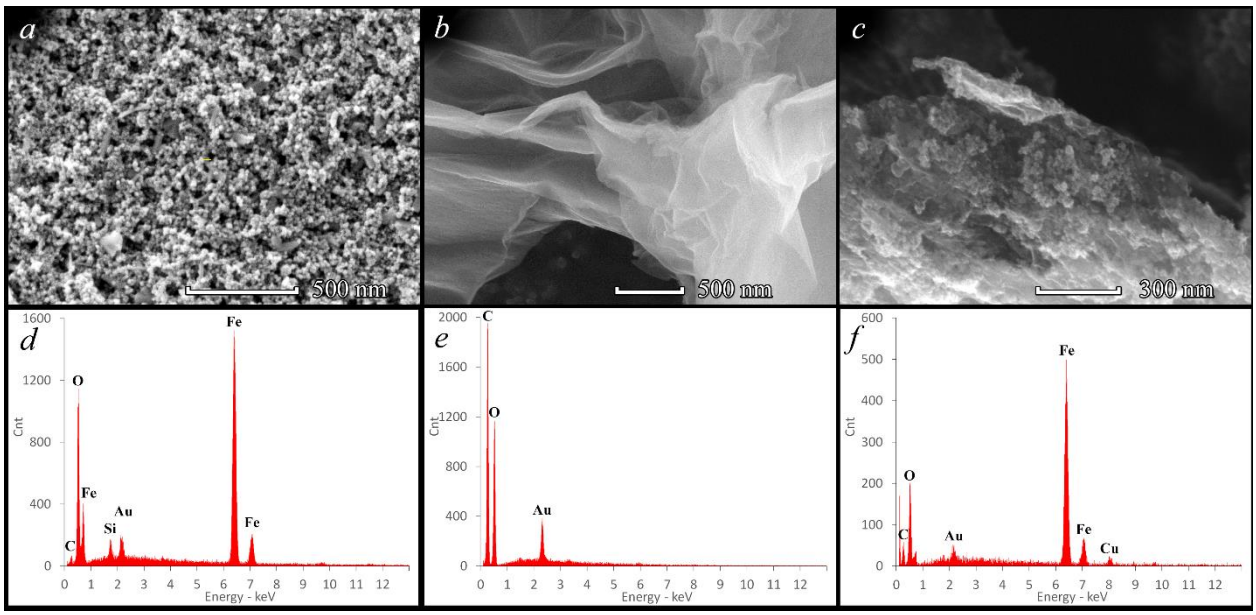


Figure S2. SEM images for MNP, GO and composite MNP/GO (***a*** **–** ***c*****).** Energy dispersive X-ray spectrum of MNP (*d*), GO (*e*) and MNP/GO (*f*).

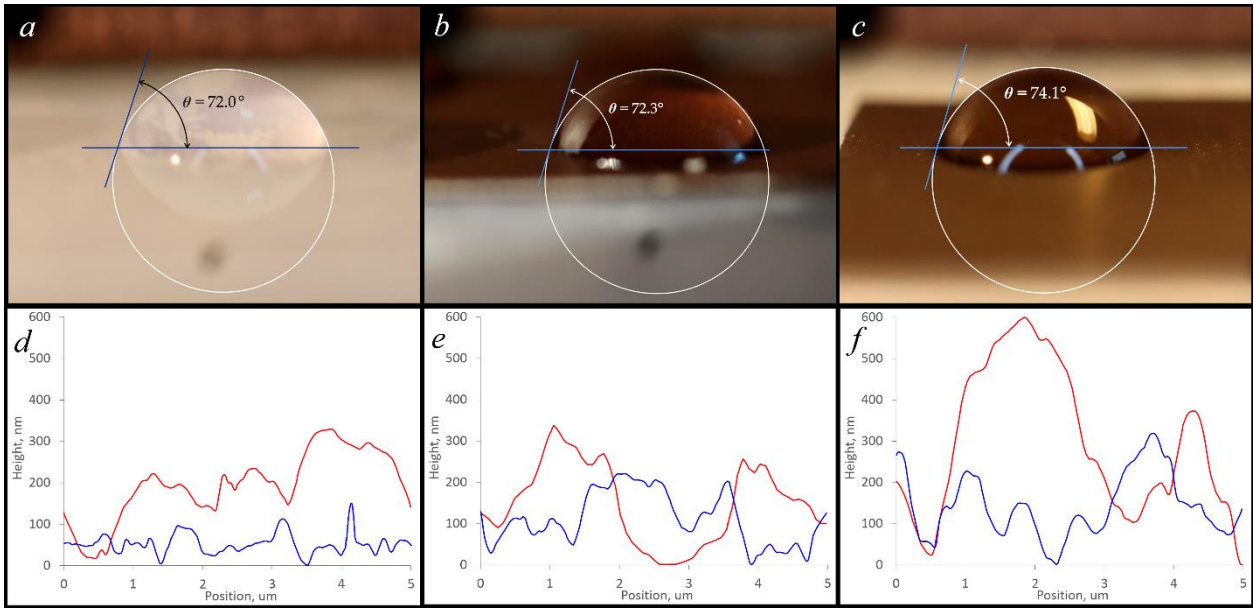


Figure S3. Water contact angle profiles of upper side of PHB (*a*), PHB-MNP (*b*) and PHB-MNP/GO (*c*) polymer films. AFM scans of roughness profiles of upper (red line) and lower (blue line) sides of PHB (*d*), PHB-NMP (*e*) and PHB-MNP/GO (*f*) polymer films.

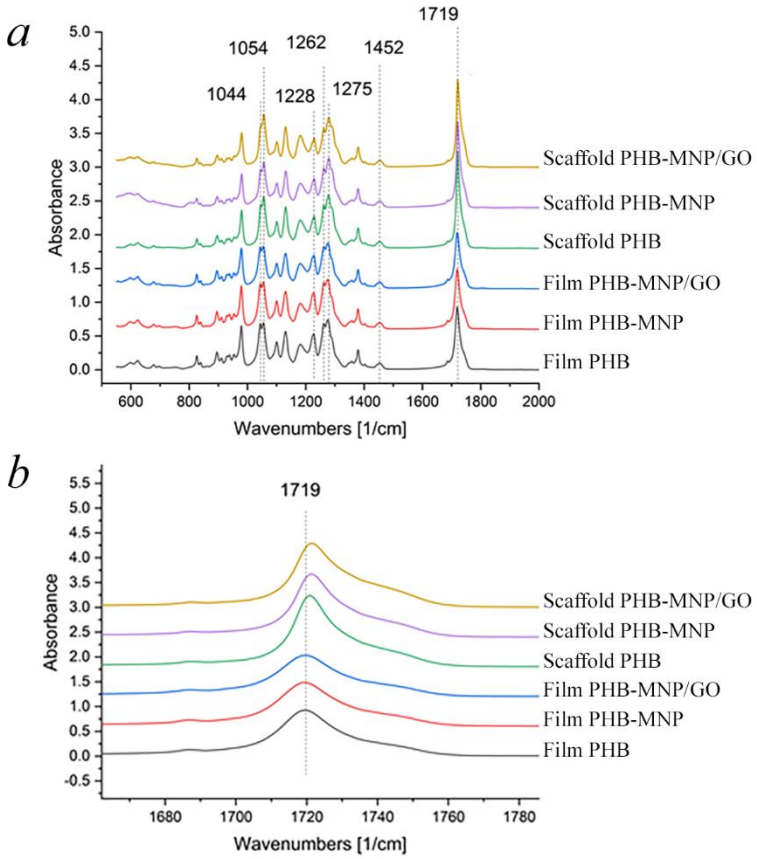


Figure S4. FTIR spectra of films and scaffolds of pure PHB and its composites with MNP and MNP/GO. The base line is subtracted. The spectra are normalized to the intensity of the 1452 band (asymmetric deformation vibrations of hydrogens in the CH_3 groups). Spectra were collected between 400 and 2000 cm^{-1} (*a*) and at 1660 and 1790 cm^{-1} (*b*).

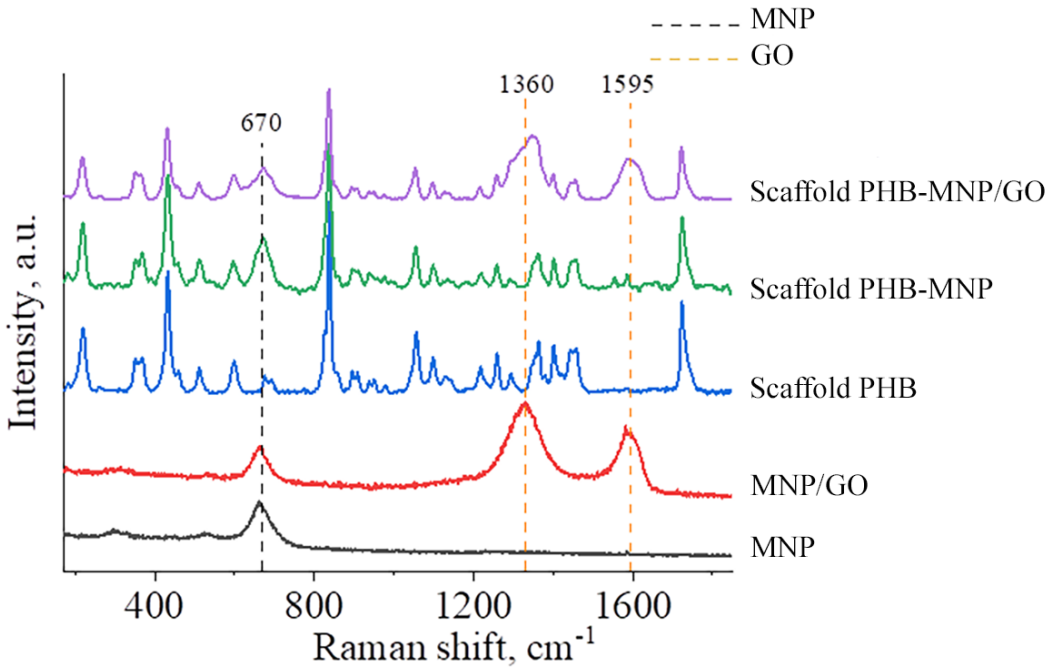


Figure S5. Raman spectra of the MNP, MNP/GO, pure PHB and composite scaffolds.