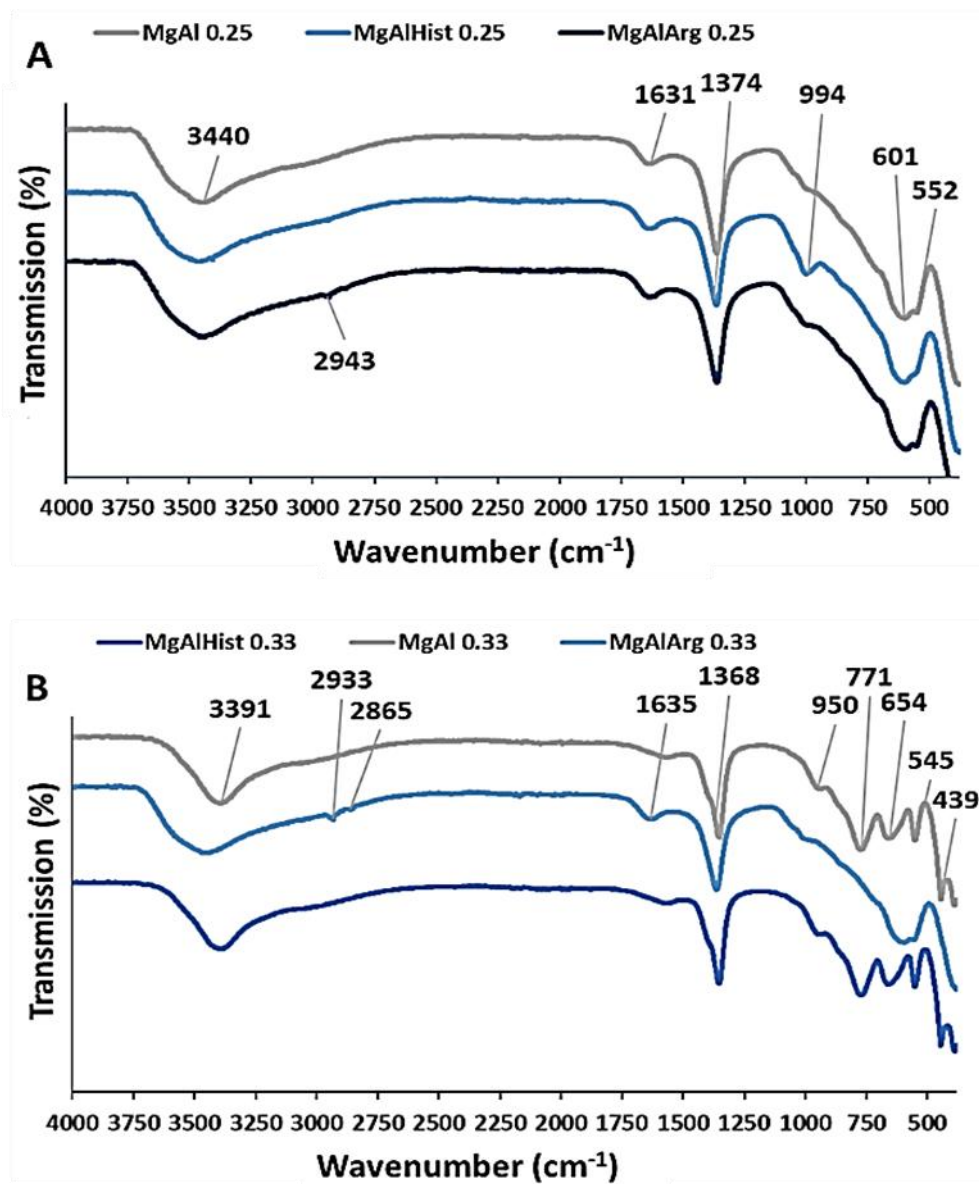


**Figure S1** The XRD diffractograms of A: MgAlArg 0.25 (a), MgAlHist 0.25(b), MgAl 0.25 (c); and (B) MgAl 0.33 (a), (MgAlArg 0.33 (b), MgAlHist 0.33 (c).



**Figure S2** FTIR spectra of (A) MgAl 0.25, MgAlArg 0.25 and MgAlHist 0.25; and (B) MgAl0.33, MgAlArg 0.33 and MgAlHist 0.33.