

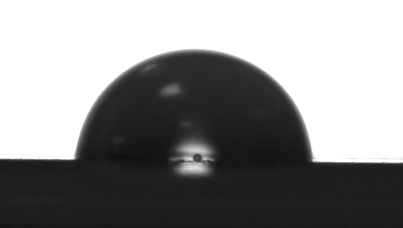
**Figure 1: DSC thermograms of (A) neat PS, (B) 5 wt.% magnesia reinforced PS, (C) 10 wt.% magnesia reinforced PS, and (D) 15 wt.% magnesia reinforced PS.**



**Figure 2: Storage modulus variations of pure PS and PS/Magnesia composites.**



**Figure 3: Loss modulus variations of pure PS and PS/Magnesia composites.**

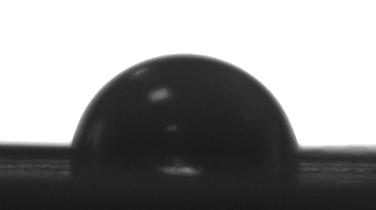
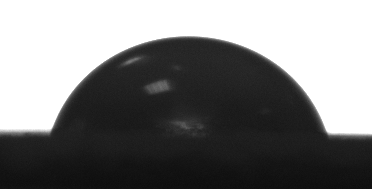
**C**

**D**

**A**

91.5°

82.1°

**B**

75.5°

86.8°

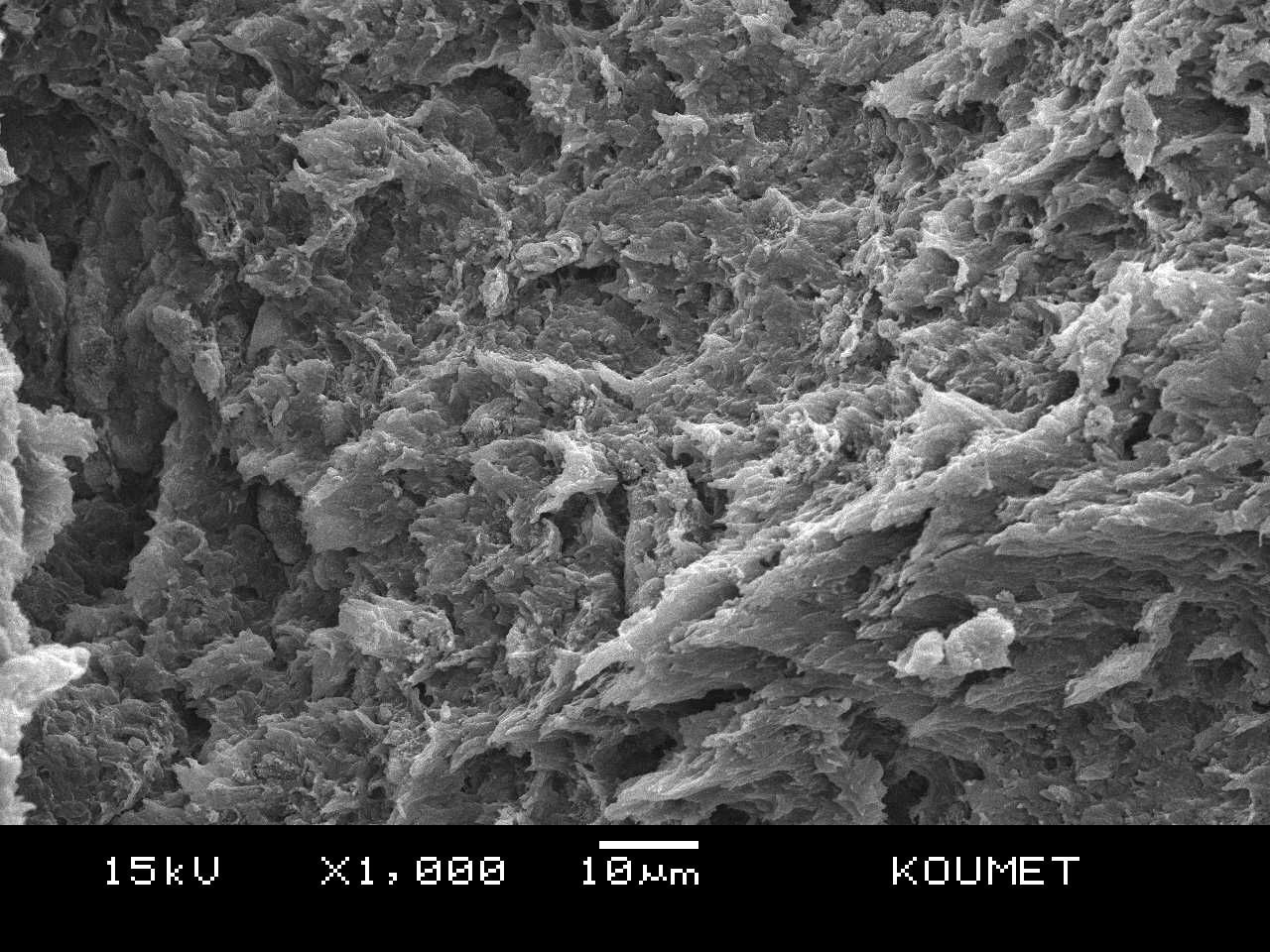
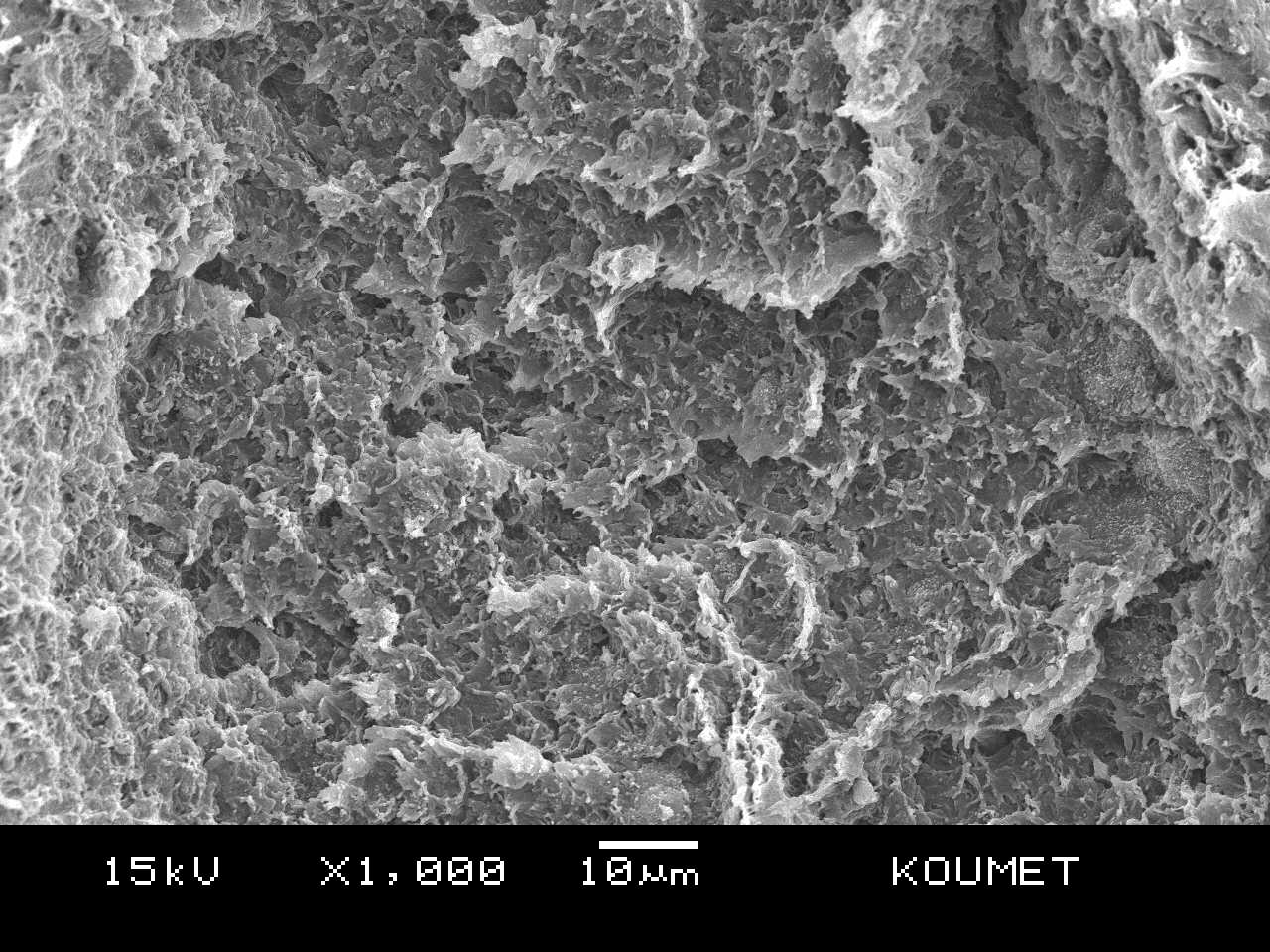
**Figure 4: Water contact angles of (A) PS, (B) PS/5 wt.% Magnesia reinforced composite, (C) PS/10 wt.% Magnesia reinforced composite, and (D) PS/15 wt.% Magnesia reinforced composite.**



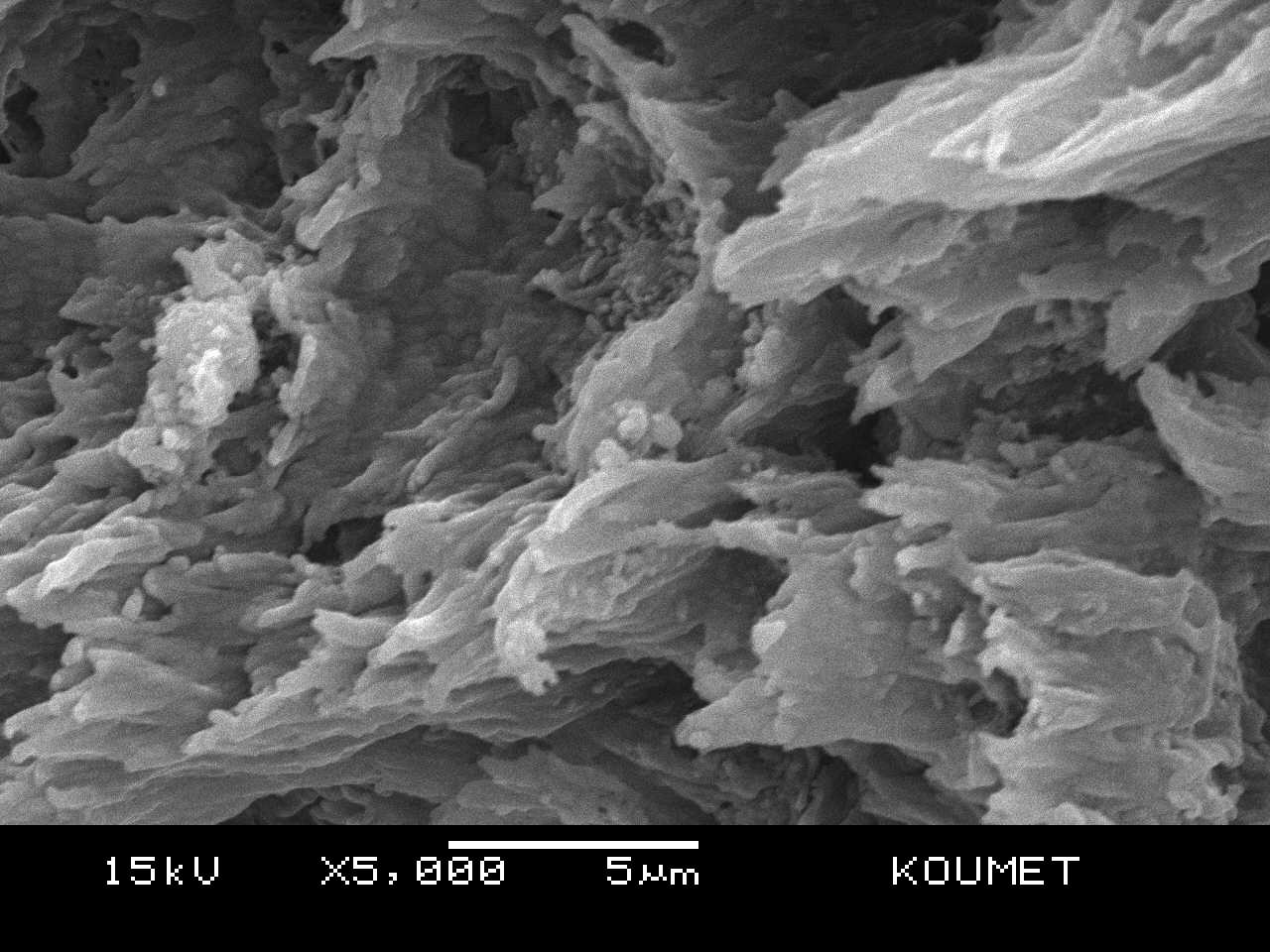
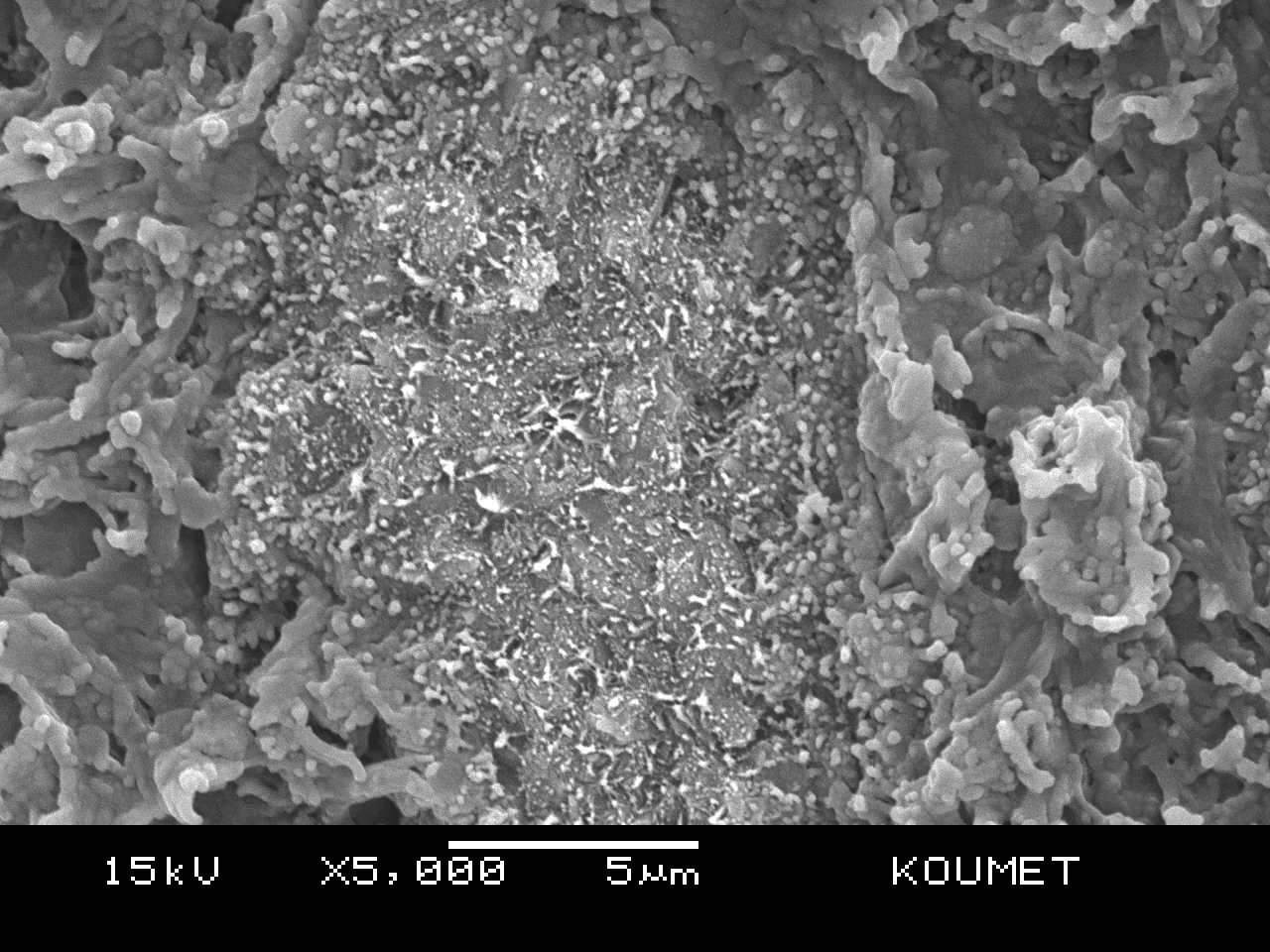
**Figure 5: TGA curves of neat polystyrene and PS/Magnesia composites.**



**Figure 6: DTG curves of neat polystyrene and PS/Magnesia composites.**

1. **10 wt.% of mangesia (B) 15 wt.% of mangesia**

**(C) 10 wt.% of mangesia (D) 15 wt.% of mangesia**

**Figure 7: SEM micrographs of PS/Magnesia composites with respect to magnesia loading level (Magnification; ˟1000, ˟5000).**