

Supporting Information

One-pot Synthesis of High-Molecular-Weight Aliphatic Polycarbonates via Melt Transesterification of Diphenyl Carbonate and Diol using $\text{Zn}(\text{OAc})_2$ as Catalyst

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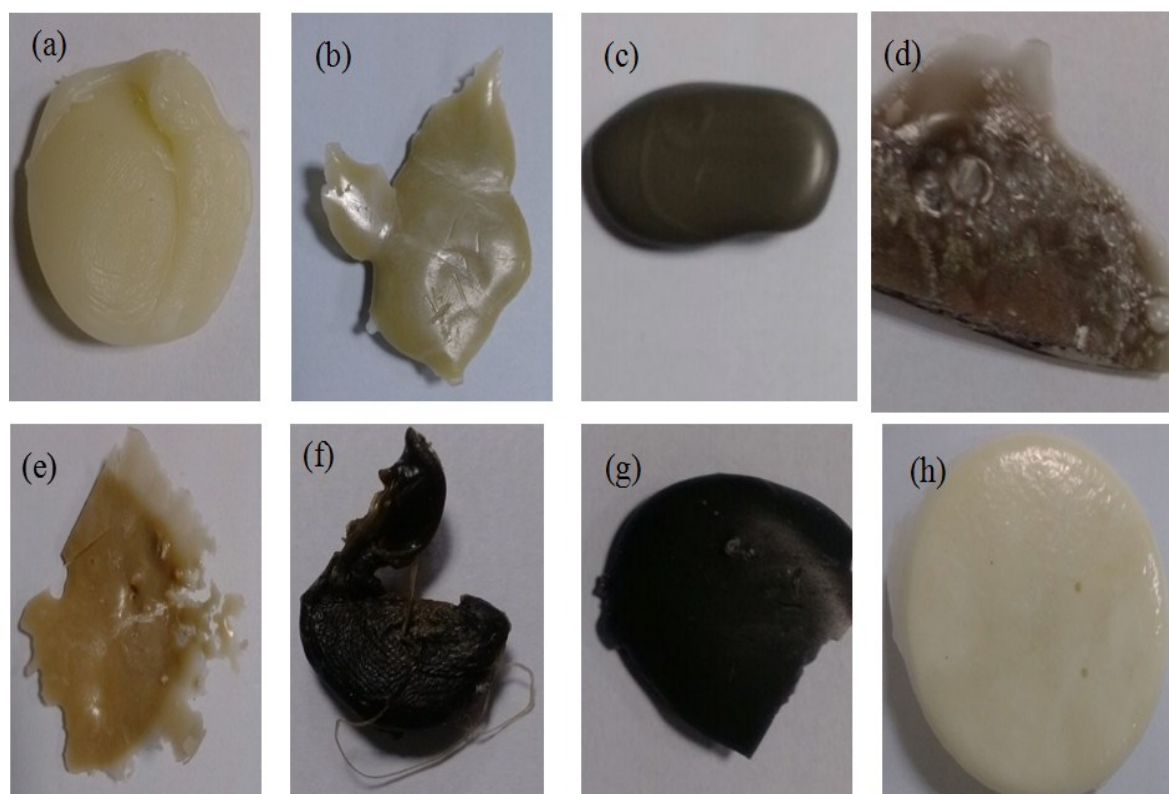


Fig S1 The color of PBC synthesized over various transition metal acetates catalysts (a) $\text{Zn}(\text{OAc})_2$ (b) $\text{Pb}(\text{OAc})_2$ (c) $\text{Cd}(\text{OAc})_2$ (d) $\text{Cu}(\text{OAc})_2$ (e) $\text{Mn}(\text{OAc})_2$ (f) $\text{Co}(\text{OAc})_2$ (g) $\text{Ni}(\text{OAc})_2$ and (h) $\text{Zn}(\text{OAc})_2 \cdot 2\text{H}_2\text{O}$

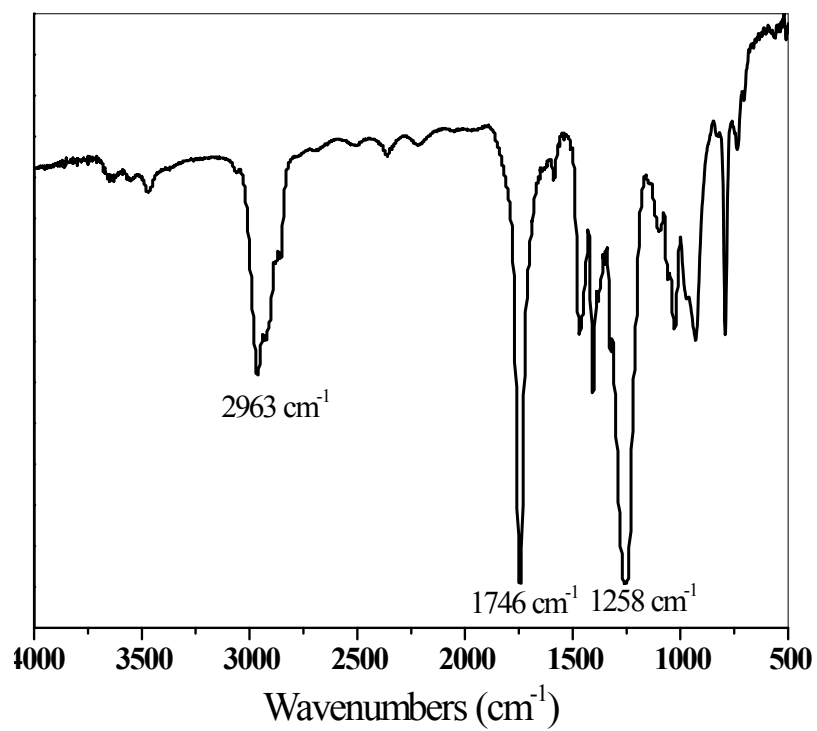
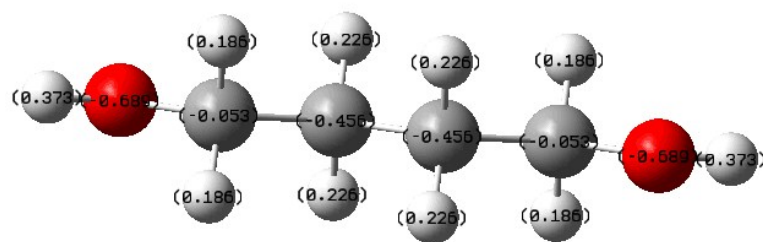


Fig S2 The FT-IR spectrum of PBC synthesized via one-pot route over Zn(OAc)₂ catalysts

(a)



(b)

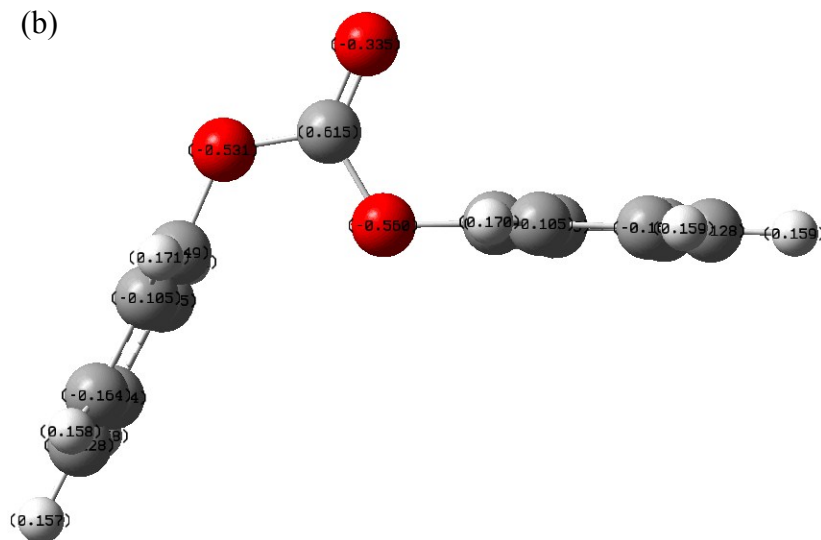


Fig S3 The optimized structures and charge analysis of (a) BD and (b) DPC