

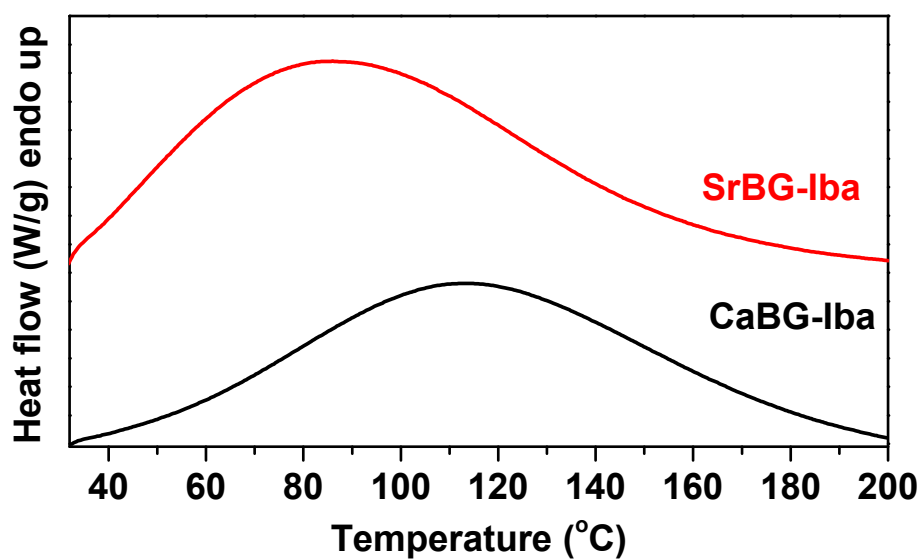
Supplementary Materials
Table S1. Particle size and PDI measured by DLS.

Sample	Size (nm)	PDI
CaBG	235.7±26.11	0.547
SrBG	408.3±71.28	0.719

Table S2. Average mass and thickness values of the produced thin films.

Sample	Mass (mg)	Thickness (μm)
PCL	1.926±0.55	9±3.16
PCL/CaBG	0.758±0.35	7.5±4.86
PCL/SrBG	1.075±0.50	8±3.50
PCL/CaBG-Iba	1.223±0.17	8±3.50
PCL/SrBG-Iba	0.828±0.55	7.5±3.54

*n=25


Figure S1. DSC thermograms of CaBG-Iba and SrBG-Iba during heating with 20 °C/min.

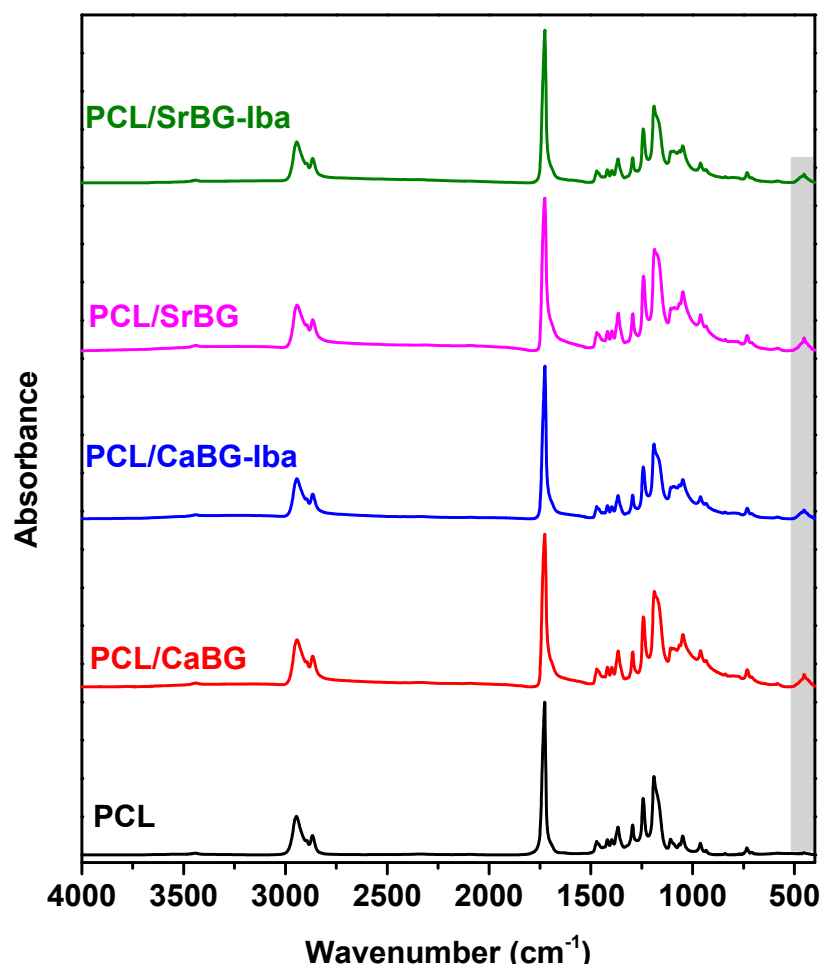


Figure S2. FT-IR spectra of the composite membranes.

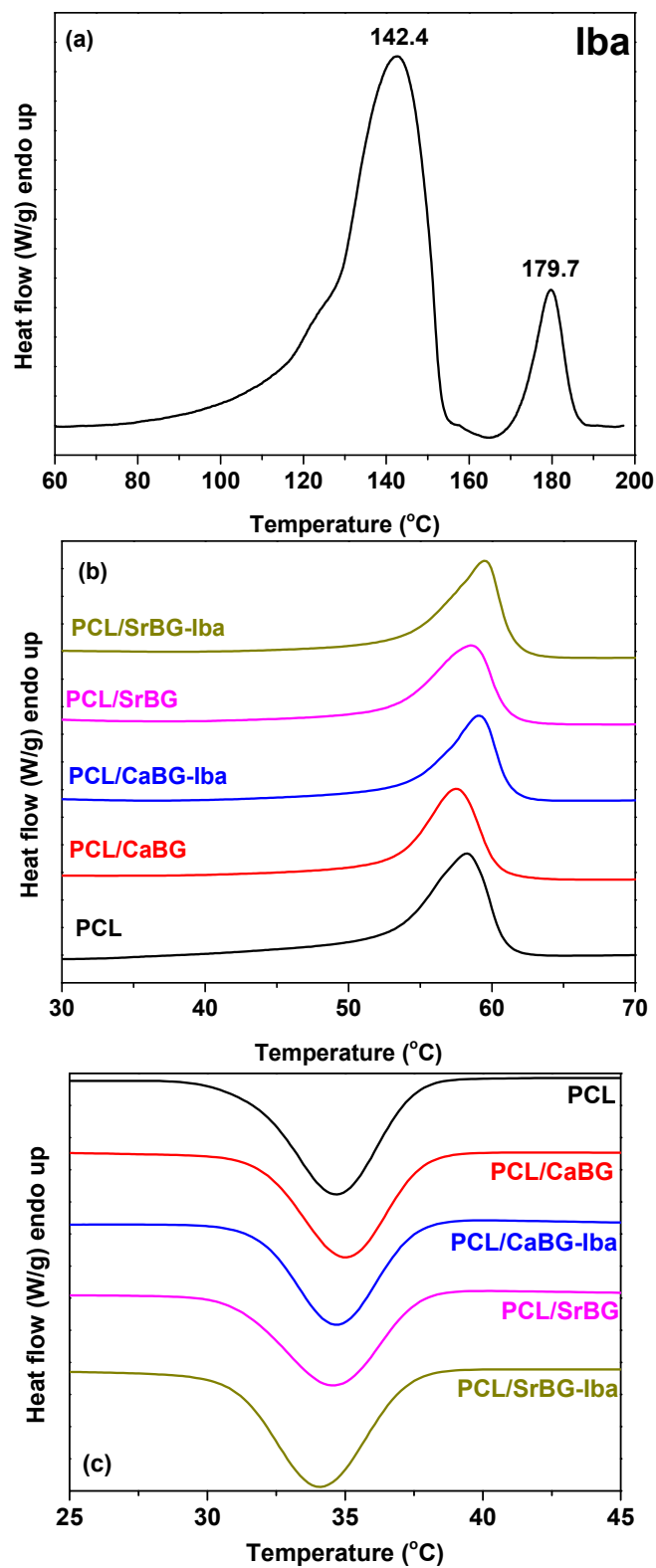


Figure S3. DSC thermograms of (a) Iba upon heating, (b) composite thin films upon heating and (c) composite thin films upon cooling.

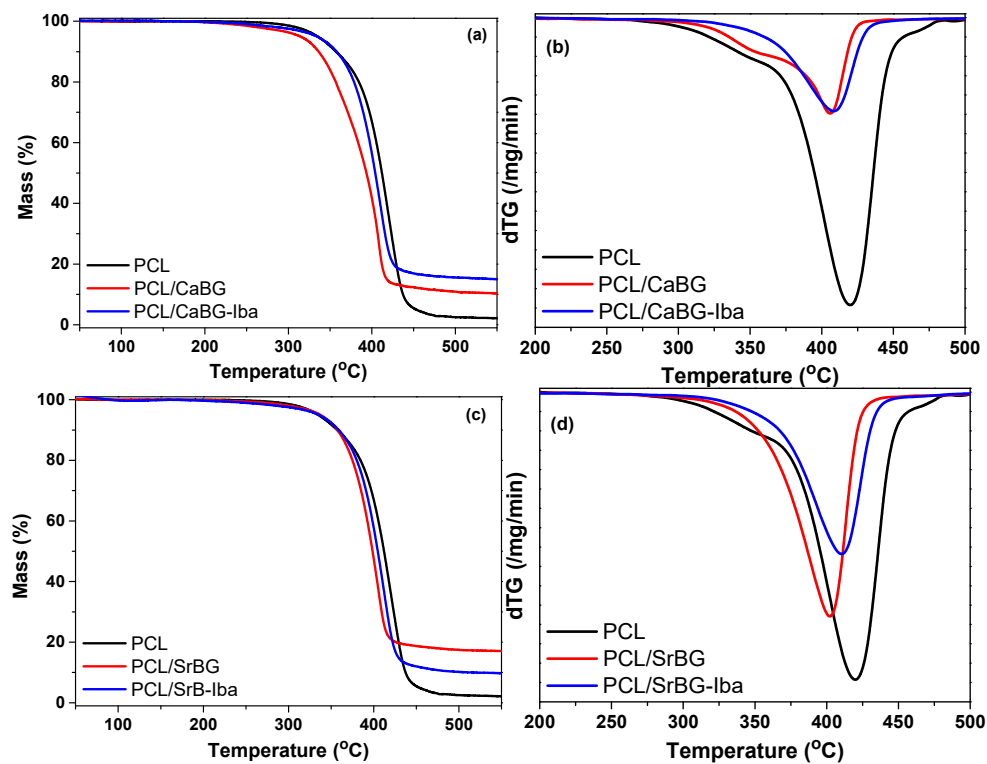


Figure S4. TGA and DTG thermograms of (a-b) PCL/CaBG and (c-d) PCL/SrBG composite thin films.

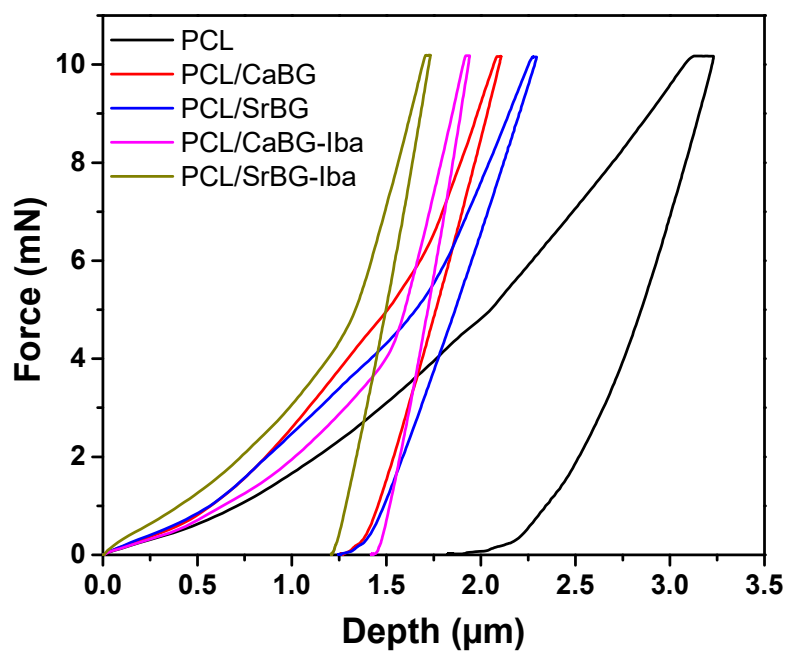


Figure S5. Loading-unloading indentation curves of PCL and its composite films.