

## SUPPORTING INFORMATION

# Biodegradation of Poly (Butylene Succinate) (PBS)/ Stearate Modified Magnesium-Aluminium Layered Double Hydroxide Composites under Marine Conditions Prepared via Melt Compounding

Parameswaran Shaiju <sup>1</sup>, Benamor-Bois Dorian <sup>2</sup>, Ramsankar Senthamarai Kannan <sup>2</sup> and  
Ramesh Babu Padamati <sup>1,2,\*</sup>

<sup>1</sup> BiOrbic, Bioeconomy Research Centre, University College Dublin, Belfield, Dublin D04 V1W8, Ireland; sparames@tcd.ie

<sup>2</sup> AMBER Centre, CRANN Institute, School of Physics, Trinity College Dublin, Dublin D02 PN40, Ireland; d.benamorbais@gmail.com (B.-B.D.); ramsankar.s@tcd.ie (R.S.)

\* Correspondence: babup@tcd.ie; Tel.: +353-18962602

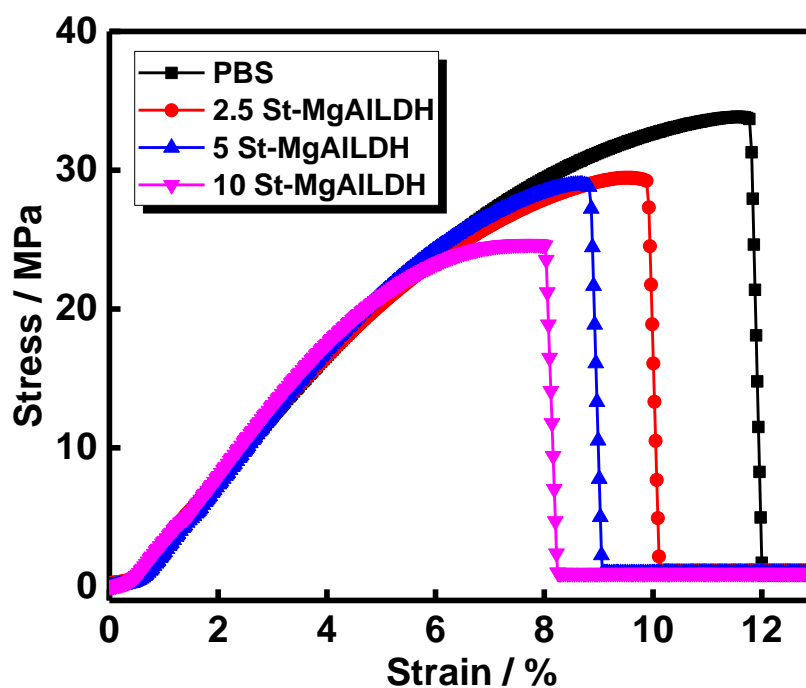
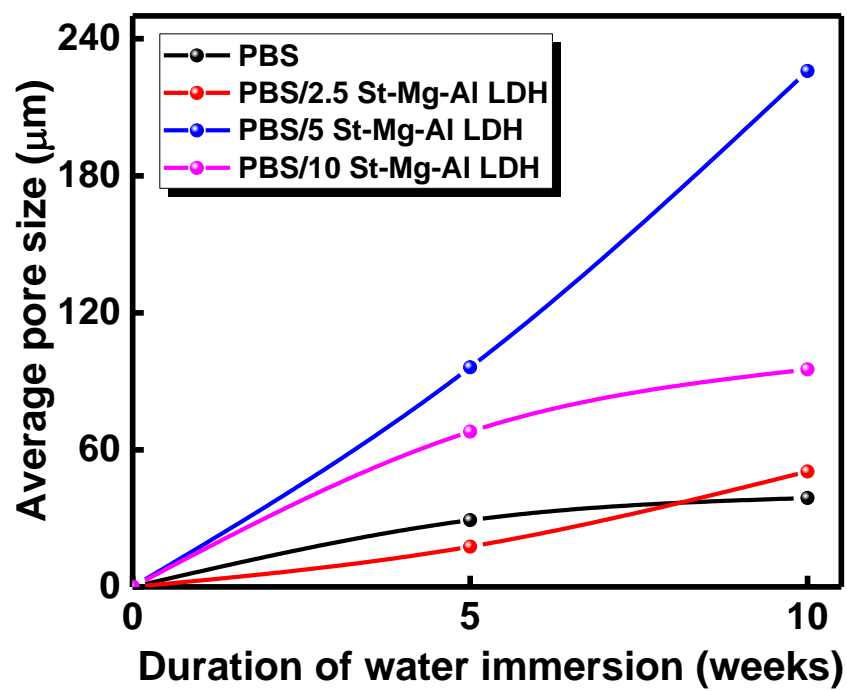


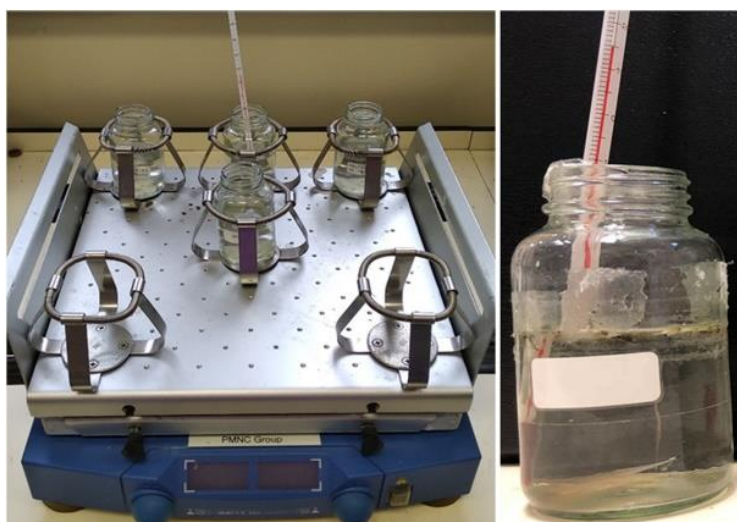
Figure S1. Stress vs. strain curves of PBS and PBS/ St-Mg-Al LDH composites.

**Table S1.** Variation in the percentage of crystallinity obtained for pure PBS and PBS composites.

Samples	Crystallinity (%)
PBS	48.0
PBS/2.5 St-Mg-Al LDH	48.5
PBS/5 St-Mg-Al LDH	47.5
PBS/10 St-Mg-Al LDH	48.7



**Figure S2.** The average pore sizes of PBS and PBS/ St-Mg-Al LDH composites calculated from SEM.



**Figure S3.** The experimental setup used for the degradation study of PBS composite films in water.

**Table S2.** Variation in the weight obtained for pure PBS and PBS composites after seawater immersion.

Duration of water immersion	Weight of the sample (mg)			
	PBS	PBS/2.5 St-MgAILDH	PBS/5 St-MgAILDH	PBS/10 St-MgAILDH
0 weeks	52.4	53.4	50.9	50.9
2 weeks	51.8	52.42	48.2	48.8
4 weeks	51.46	51.7	46.72	47.2
6 weeks	51.29	51.42	45.69	46.26
8 weeks	50.76	50.83	43.98	45.28
10 weeks	50.6	50	42.88	43.8