

Supplementary Information

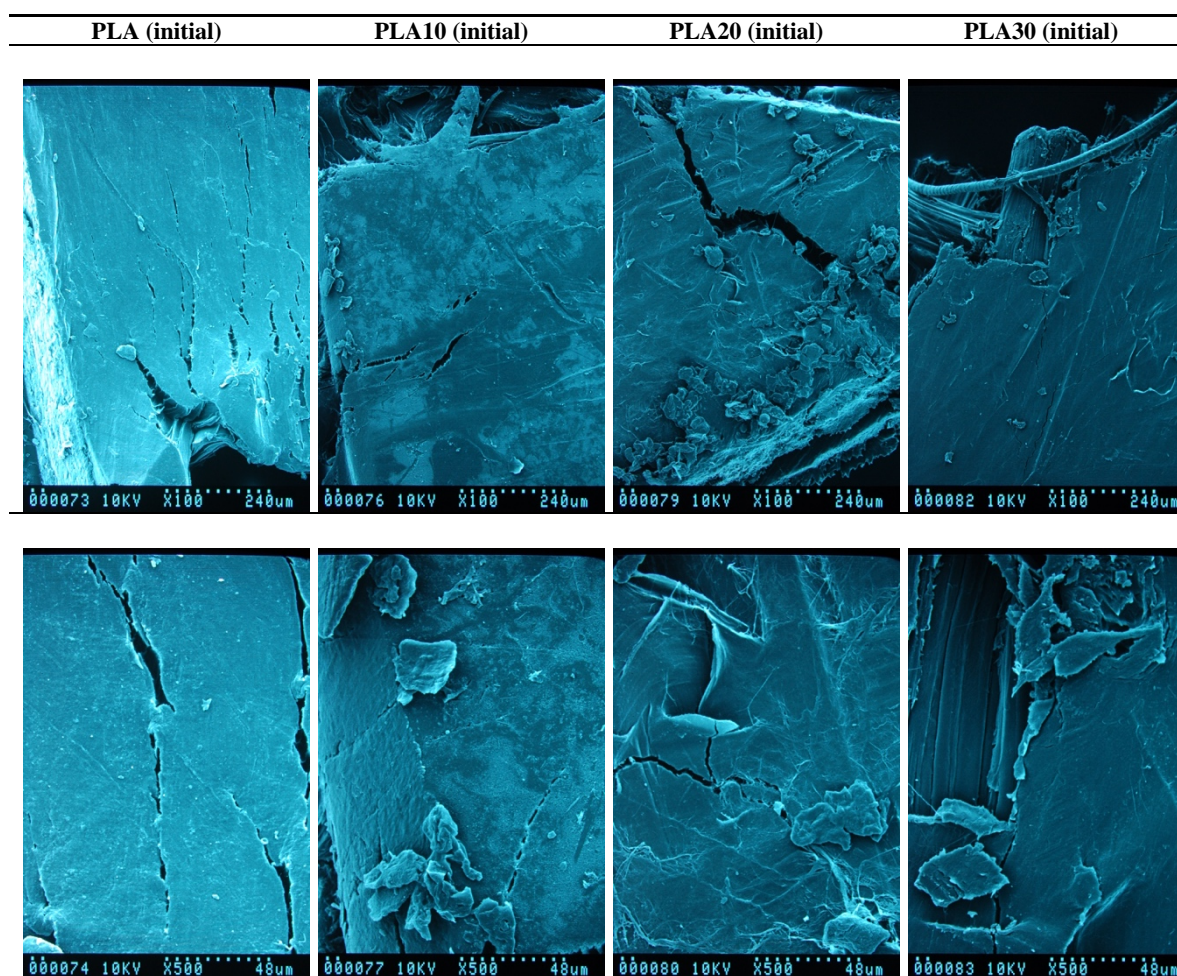
# Influence of the Degradation Medium on Water Uptake, Morphology, and Chemical Structure of Poly(Lactic Acid)-Sisal Bio-Composites

Cristina Moliner \*, Elisabetta Finocchio \*, Elisabetta Arato, Gianguido Ramis and Alberto Lagazzo

Department of Civil, Chemical and Environmental Engineering (DICCA), University of Genoa, via all'Opera Pia 15, I-16145, Genova (Italy); elisabetta.arato@unige.it (E.A.); gianguidoramis@unige.it (G.R.); alberto.lagazzo@unige.it (A.L.)

\* Correspondence: cristina.moliner@edu.unige.it (C.M.); Elisabetta.Finocchio@unige.it (E.F.), Tel.: +39-010 3352919

Received: 31 July 2020; Accepted: 04 September 2020; Published: date





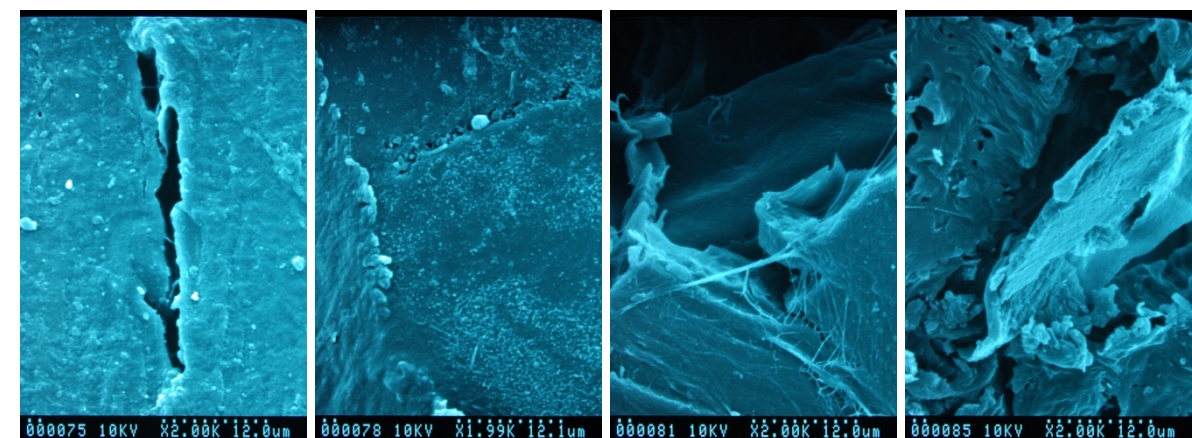
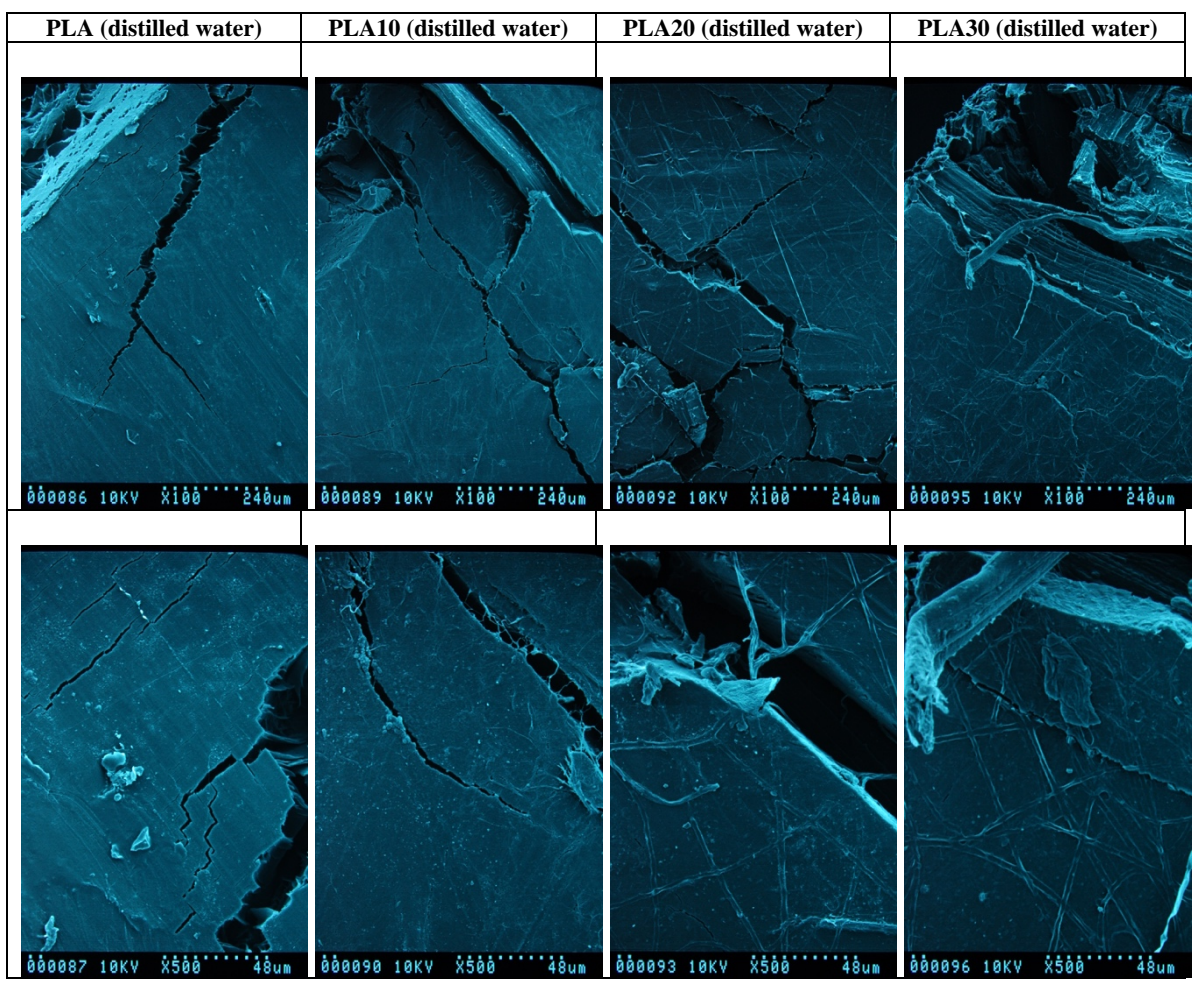


Figure S1. SEM images for PLA bio-composites before water soaking, at 100× (row 1), 500× (row 2) and 2000× (row 3) magnifications.





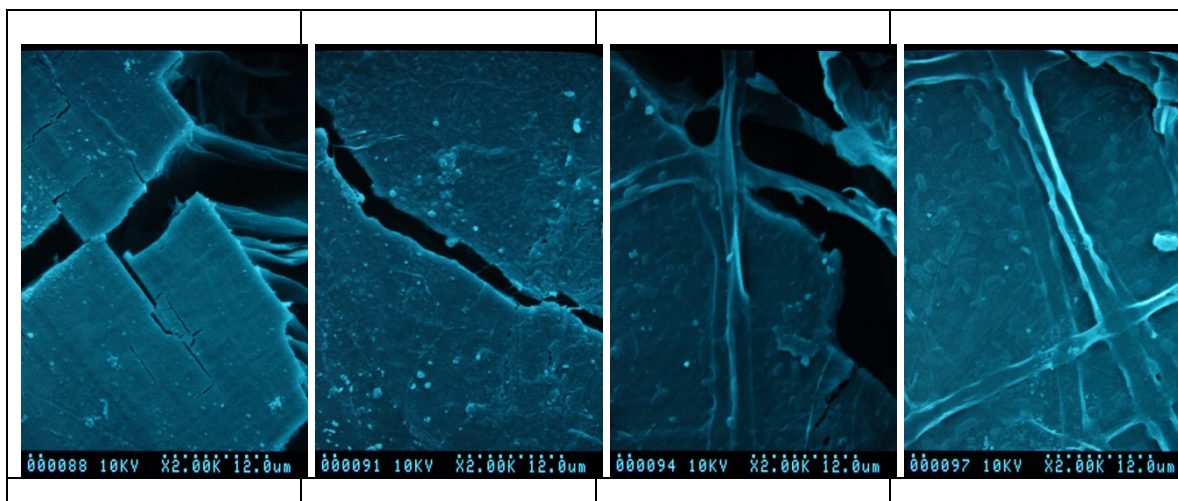
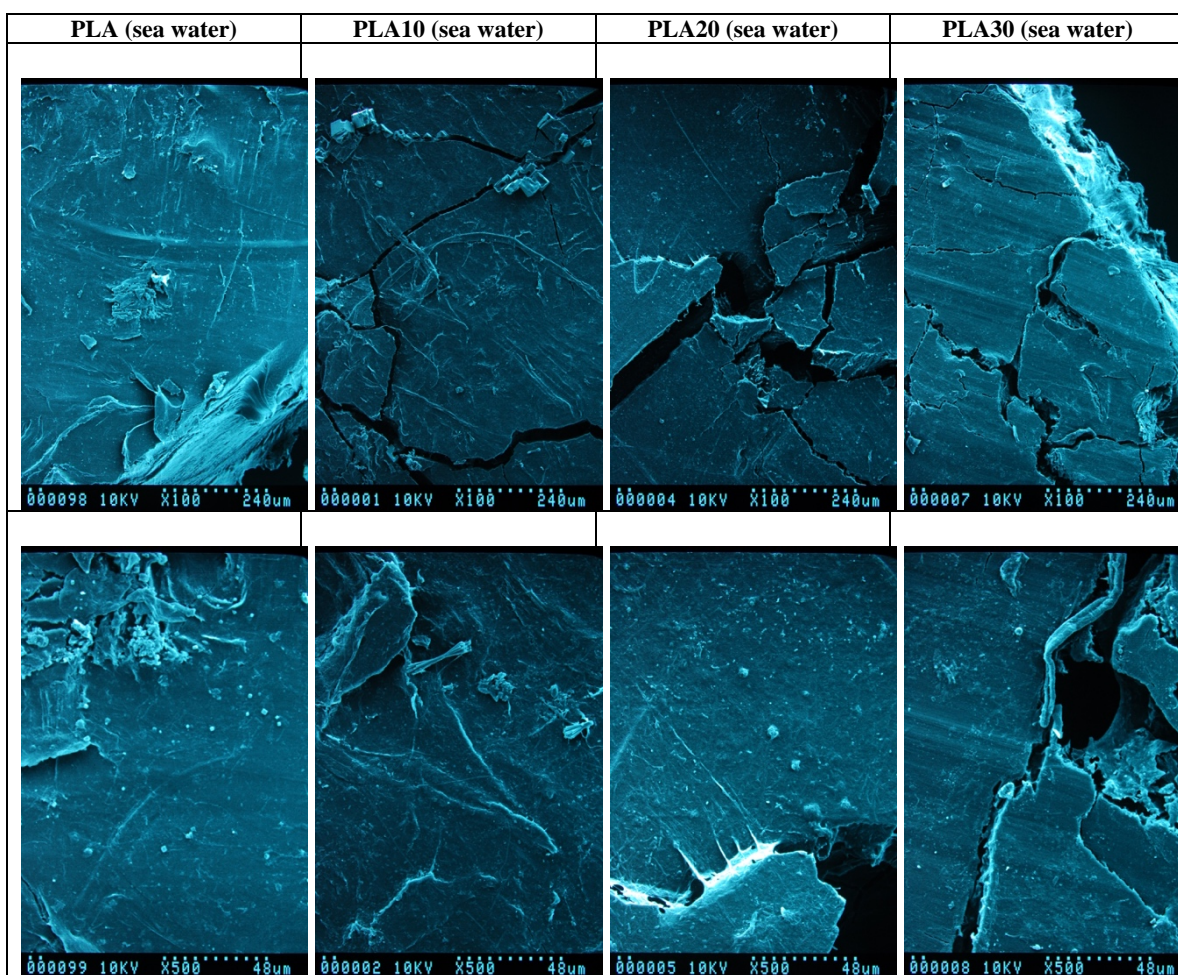
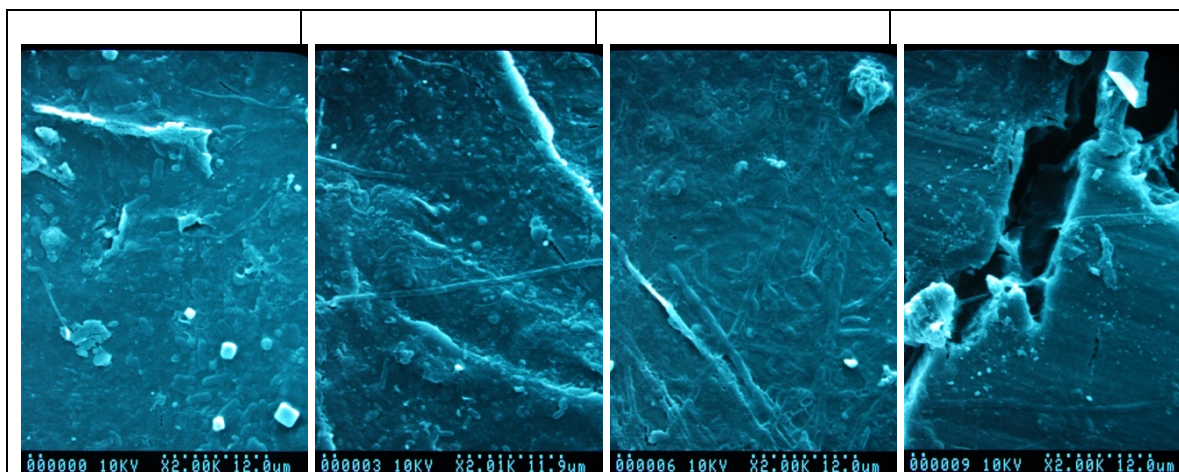
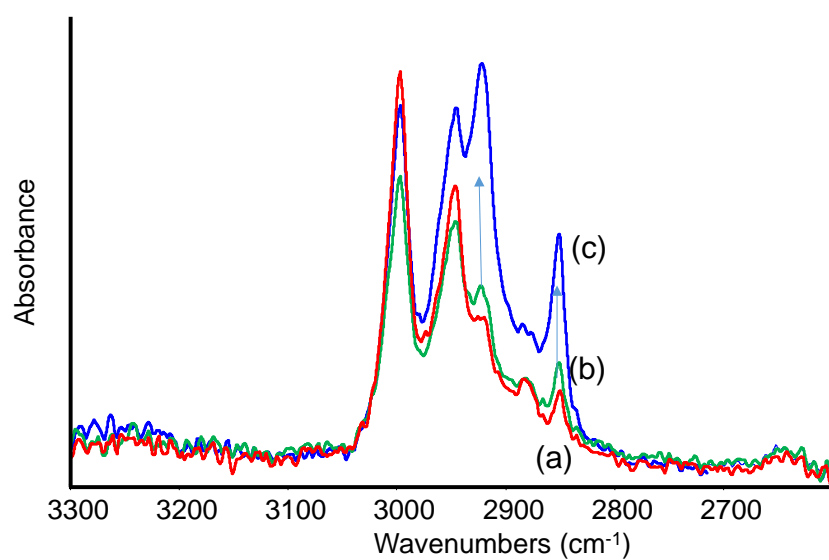


Figure S2. SEM images for PLA bio-composites after water soaking in distilled water, at 100× (row 1), 500× (row 2) and 2000× (row 3) magnifications.

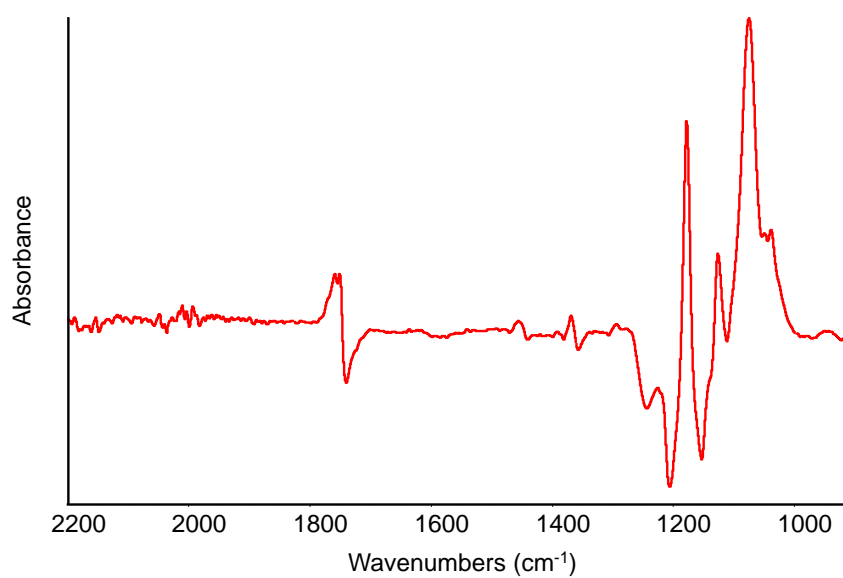




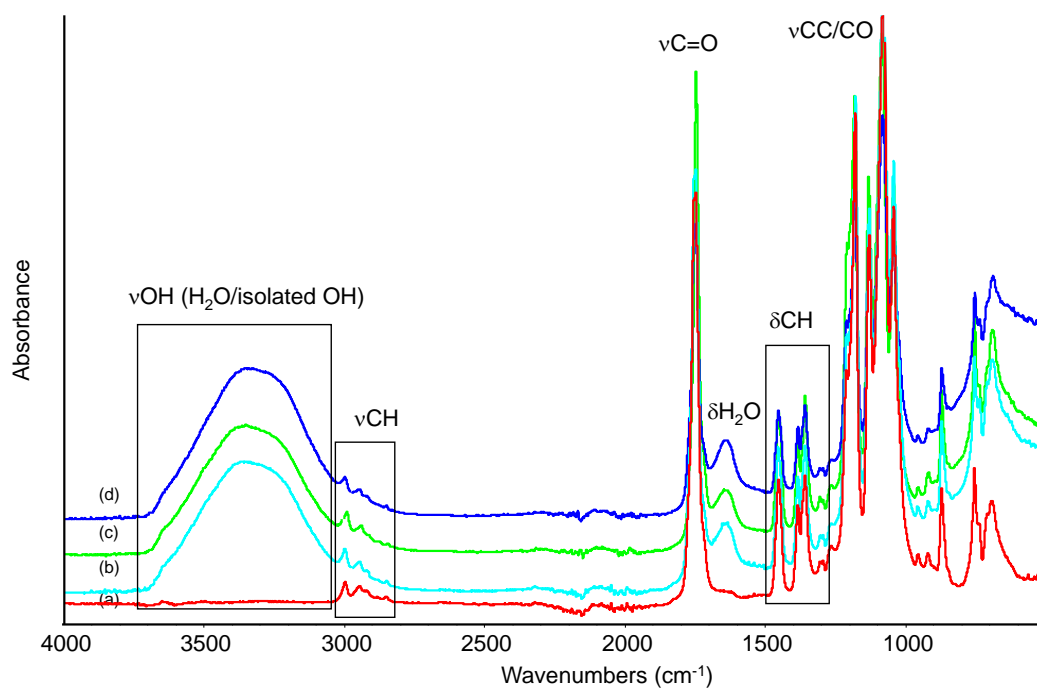
**Figure S3.** SEM images for PLA bio-composites after water soaking in natural sea water, at 100× (row 1), 500× (row 2) and 2000× (row 3) magnifications.



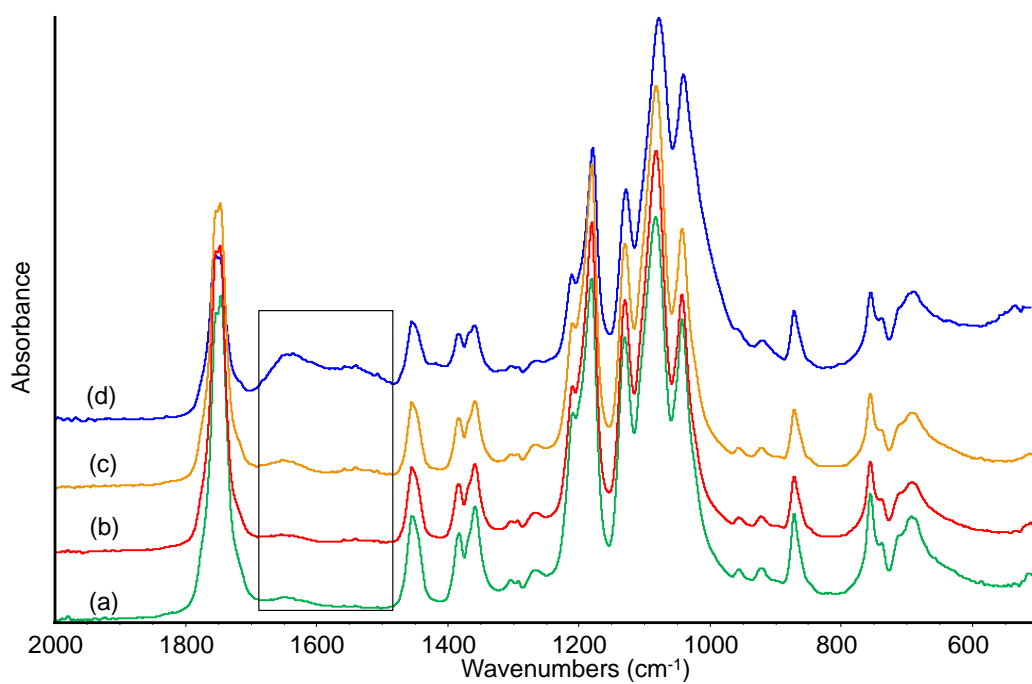
**Figure S4.** FTIR spectra of PLA bio-composites: PLA10 (a), PLA20 (b), PLA30 (c). CH stretching region.



**Figure S5.** FTIR subtraction spectrum [spectrum PLA pH2]–[spectrum PLA].



**Figure S6.** FTIR spectra of PLA and PLA composites after treatment in aqueous solution (pH = 2): pure PLA (a), PLA10 (b), PLA20 (c), PLA30 (d).



**Figure S7.** FT IR spectra of PLA and PLA composites after treatment in natural seawater: pure PLA (a), PLA10 (b), PLA20 (c), PLA30 (d).

