

Article

# Biodegradable Polyurethanes Based on Castor Oil and Poly (3-hydroxybutyrate)

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**Table S1.** CO/PHBD PU 8h formulations at different CO/PHBD ratio.

CO/PHBD (g/g)*	Mass of CO (g)	OH molar equivalent in CO	Mass of PHBD (g)	OH molar equivalent in PHBD**
1/0	1	0.0032	-	-
9/1	0.9	0.0029	0.1	0.0001
8/2	0.8	0.0026	0.2	0.0002
7/3	0.7	0.0023	0.3	0.0003
6/4	0.6	0.0019	0.4	0.0004

\* Total mass: 1 g.

\*\* OH functionality in PHBD 8h: 1.92.

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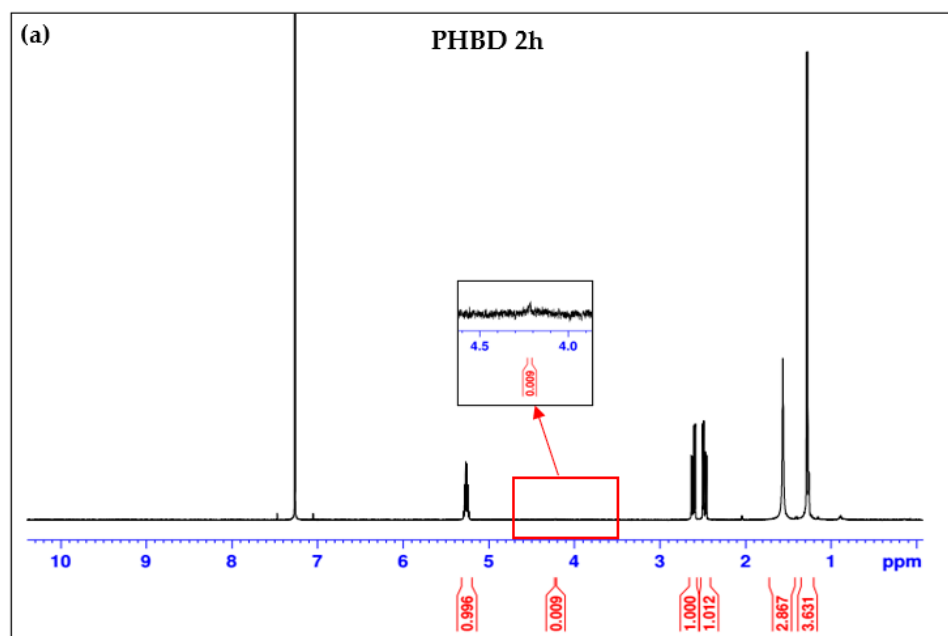
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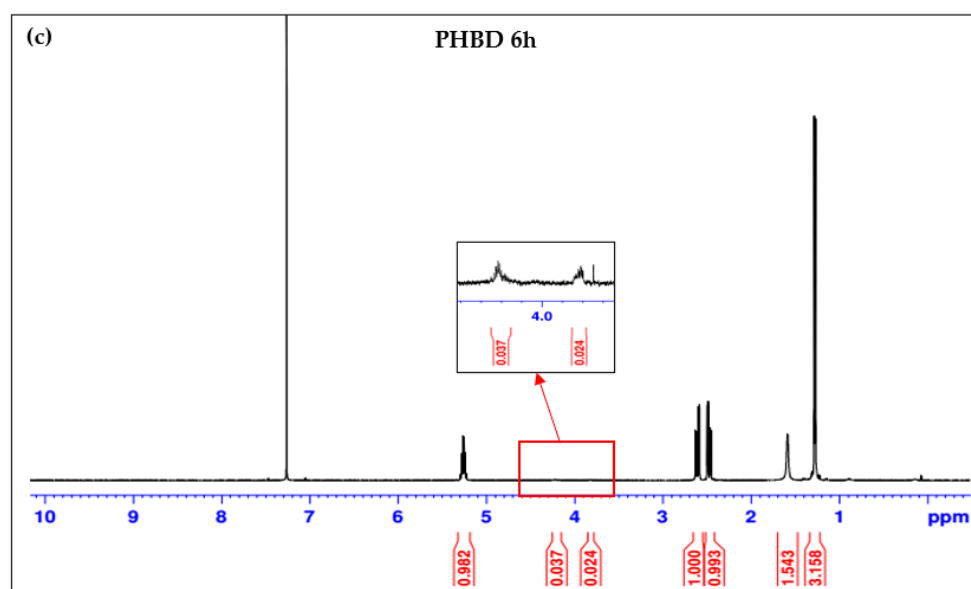
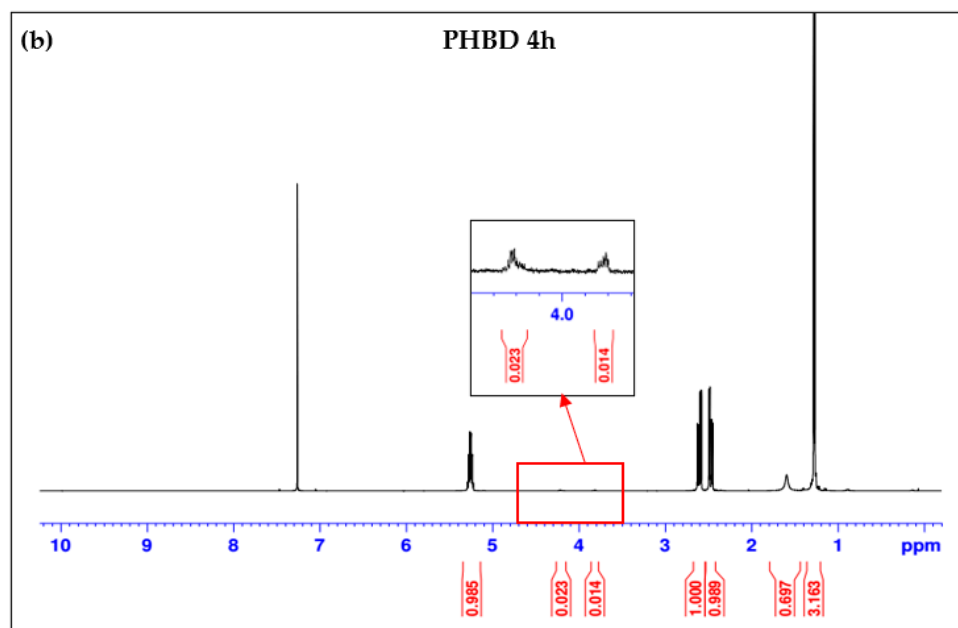
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**Figure S1.**  $^1\text{H}$ NMR spectra of PHB diols obtained from different timed reactions.

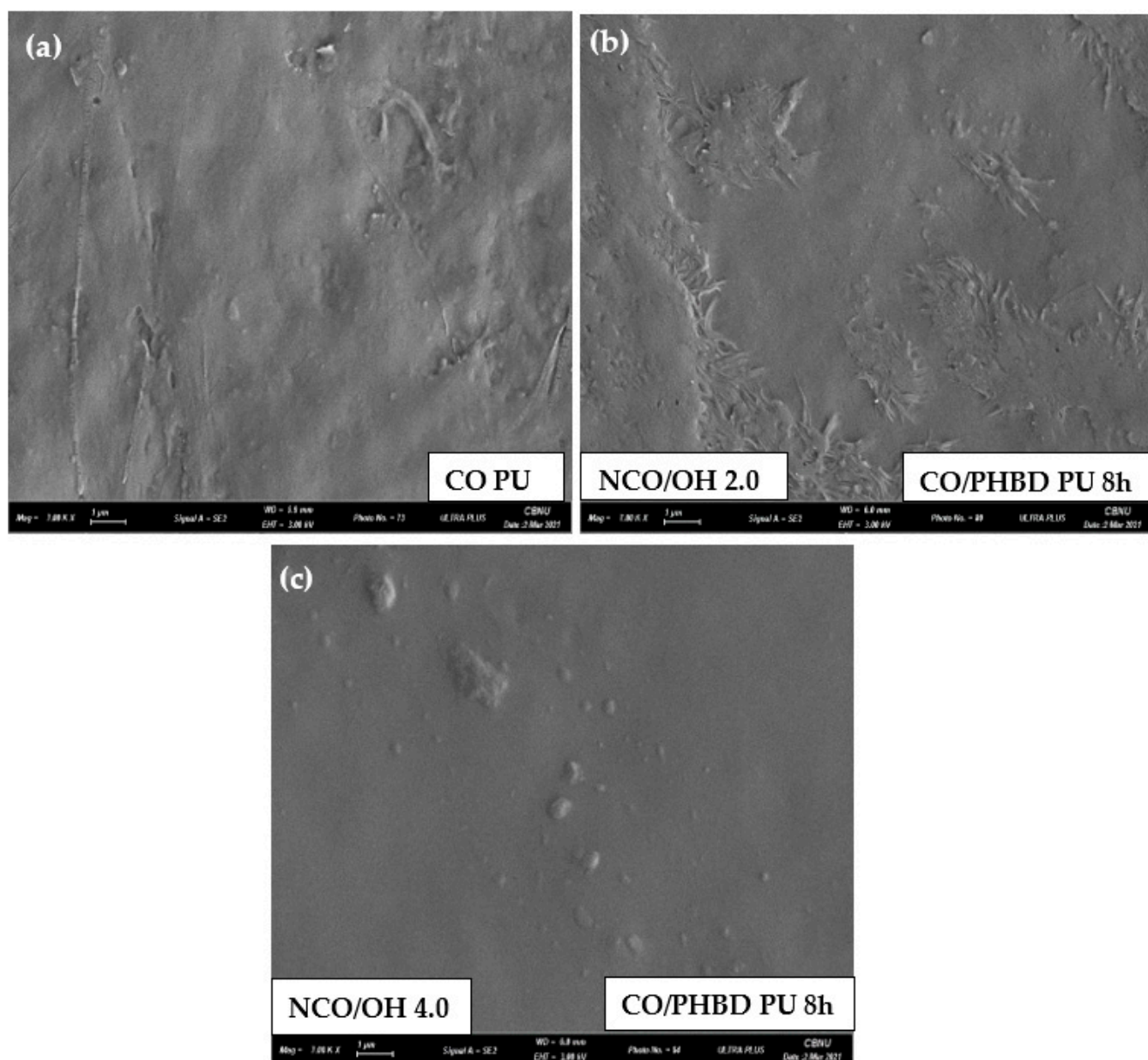


Figure S2. SEM images of CO PU (a) and CO/PHBD PU 8h with NCO/OH 2.0 (b) and 4.0 (c).

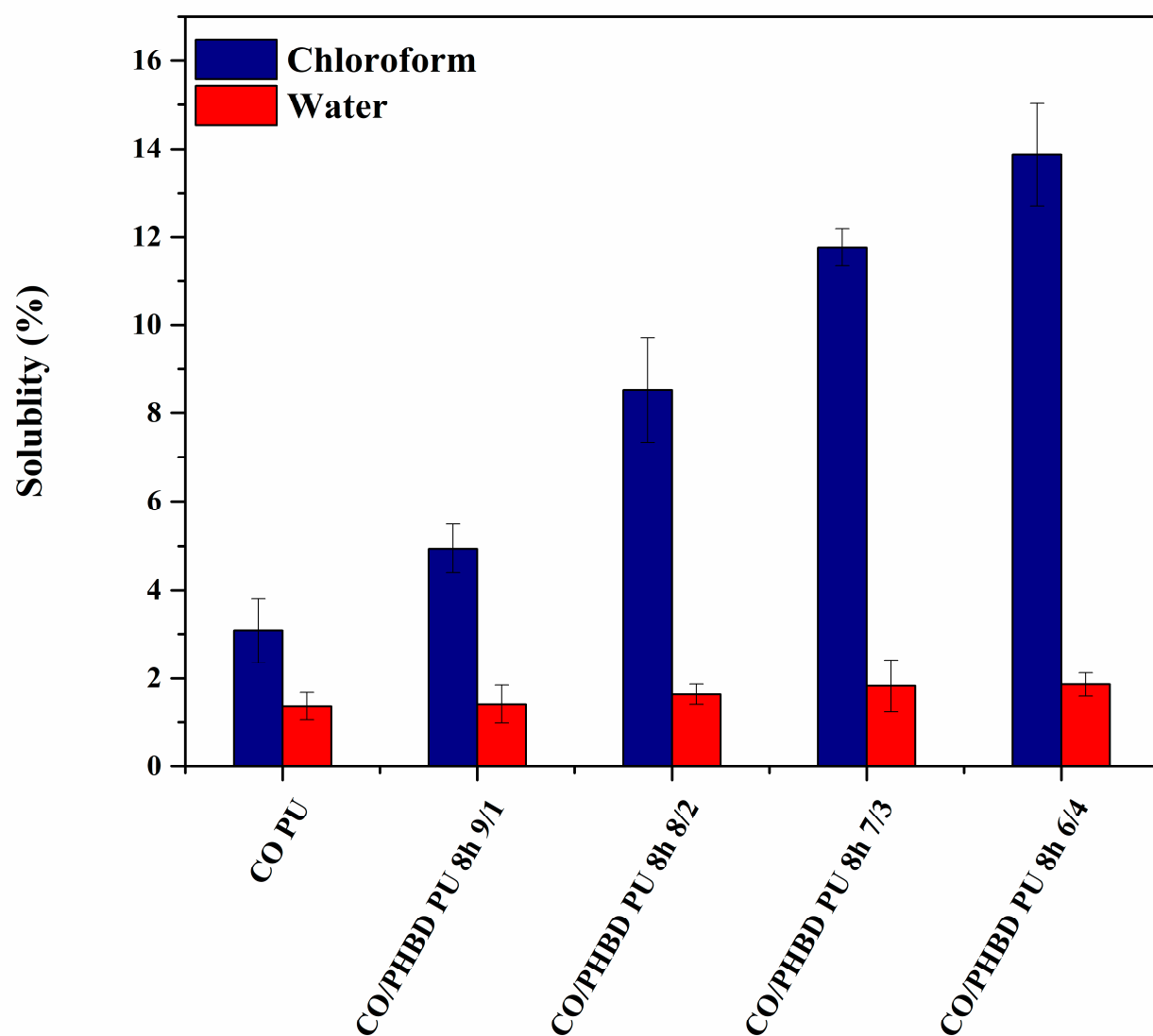


Figure S3. Solubility test of CO/PHBD PUs in water and chloroform.

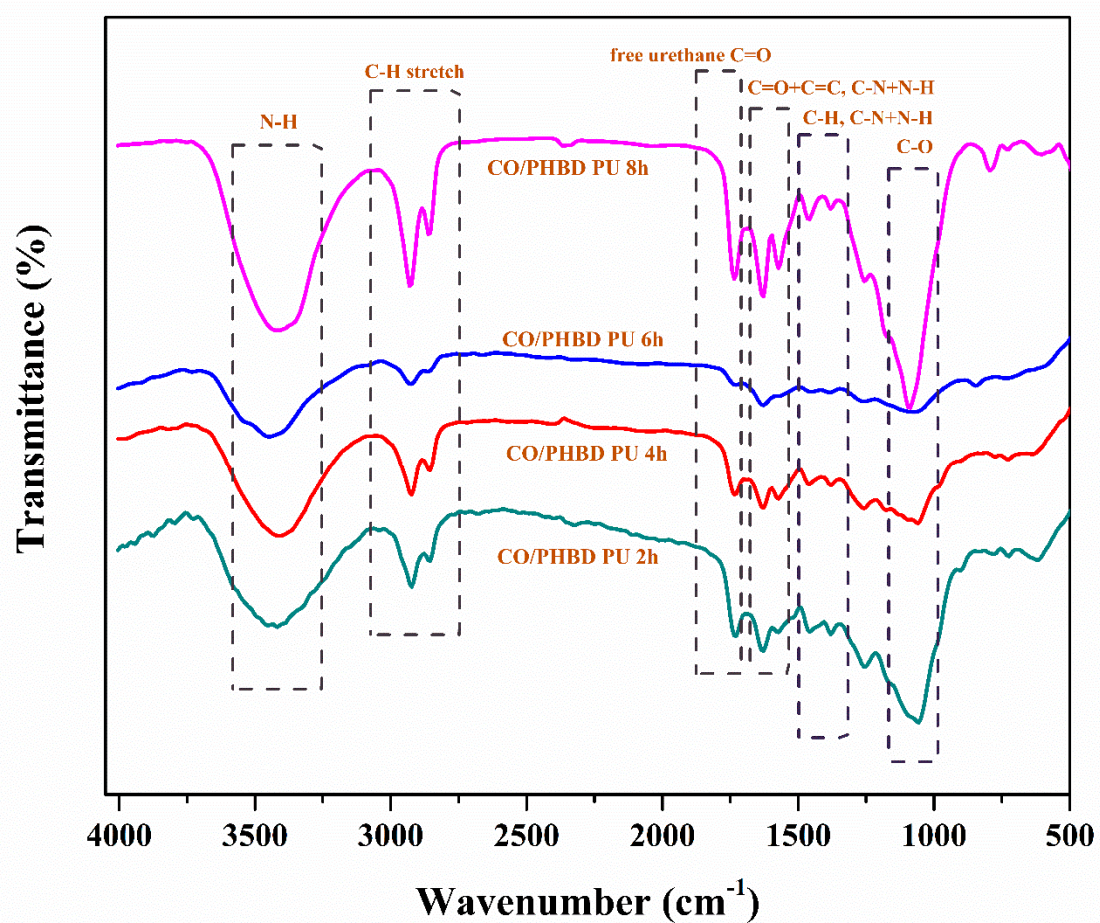


Figure S4. FTIR spectra of different CO/PHBD PUs.

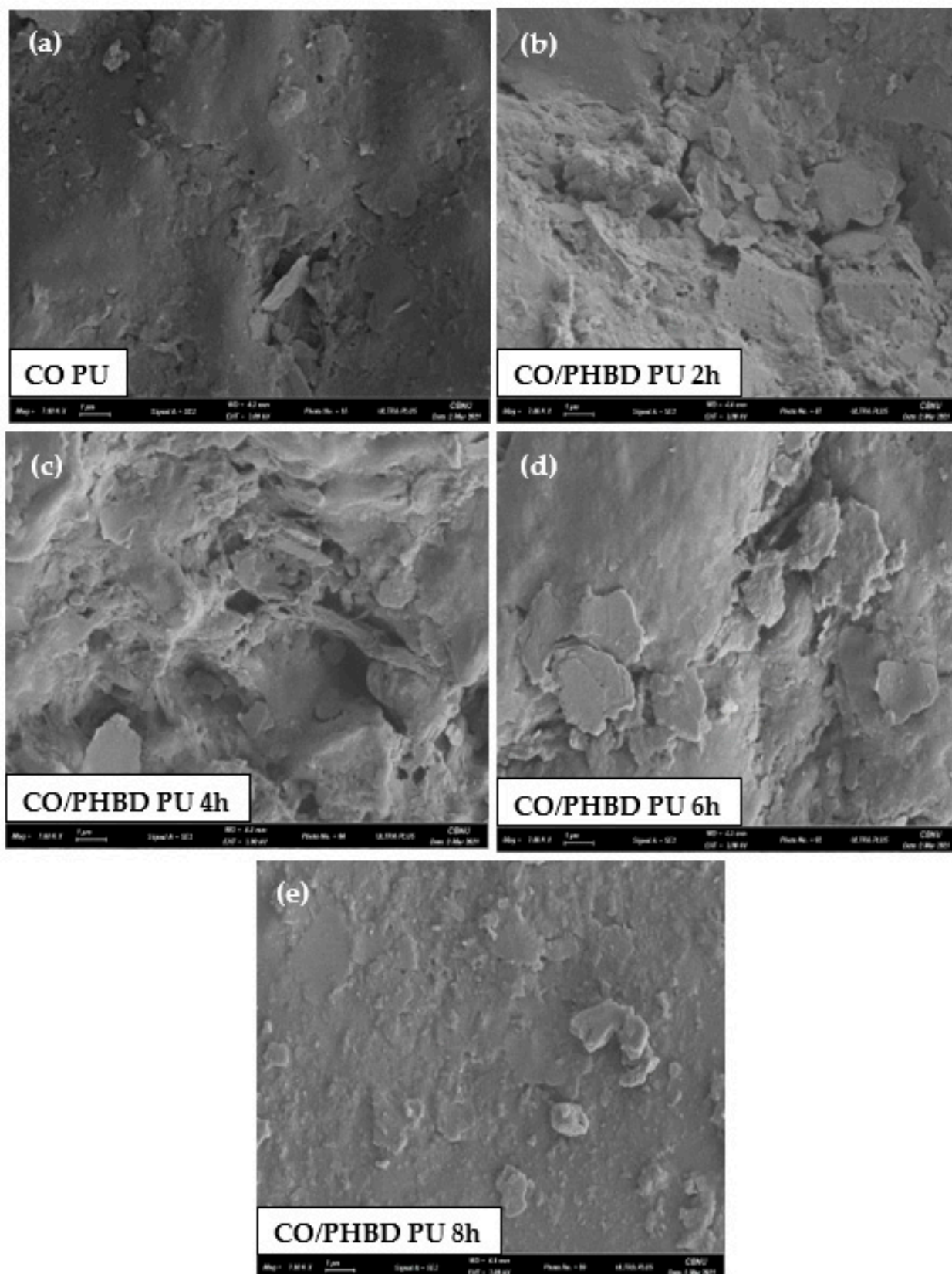


Figure S5. SEM analysis of CO/PHBD PUs after 35 days soil burial test.