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## Supplementary data

% C	%Н	% N	% Si					
42.6	6.8	0	0					
44.0	7.6	0.81	1.62					
46.6	7.6	0.65	1.30					
	% C 42.6 44.0 46.6	% C     % H       42.6     6.8       44.0     7.6       46.6     7.6	% C     % H     % N       42.6     6.8     0       44.0     7.6     0.81       46.6     7.6     0.65					

 Table S1. Elemental analysis (EA) for NCC and surface-modified NCC

**Table S2.** Calorimetric data for the PHBH, PHBH/NCC and PHBH/NCC-g-PHBH blends.

Samples	$T_{c}(^{\circ}C)$	$\Delta H_{m}\left(J/g\right)$	$T_{cc}(^{\circ}C)$	X <sub>c</sub> (%)	$T_m(^{\circ}C)$
PHBH	/	/	74.7	/	126.5/143.1
PHBH <sub>0.5</sub>	64.1	47.7	/	32.7	126.4/141.5
PHBH <sub>1.0</sub>	81.9	48.5	/	33.2	128.9/141.9
PHBH <sub>2.0</sub>	69.2	55.0	/	37.7	126.2/141.8
PHBH/NCC	45.8	48.9	/	33.5	129.3/143.4



**Fig. S1.** (a) Crystallization upon cooling and subsequent melting DSC curves and (b) polarizing optical photographs of final crystalline morphology of the PHBH/APES sample.