

Supporting Information

Modifying flexible polymer films towards superhydrophobicity and superoleophobicity

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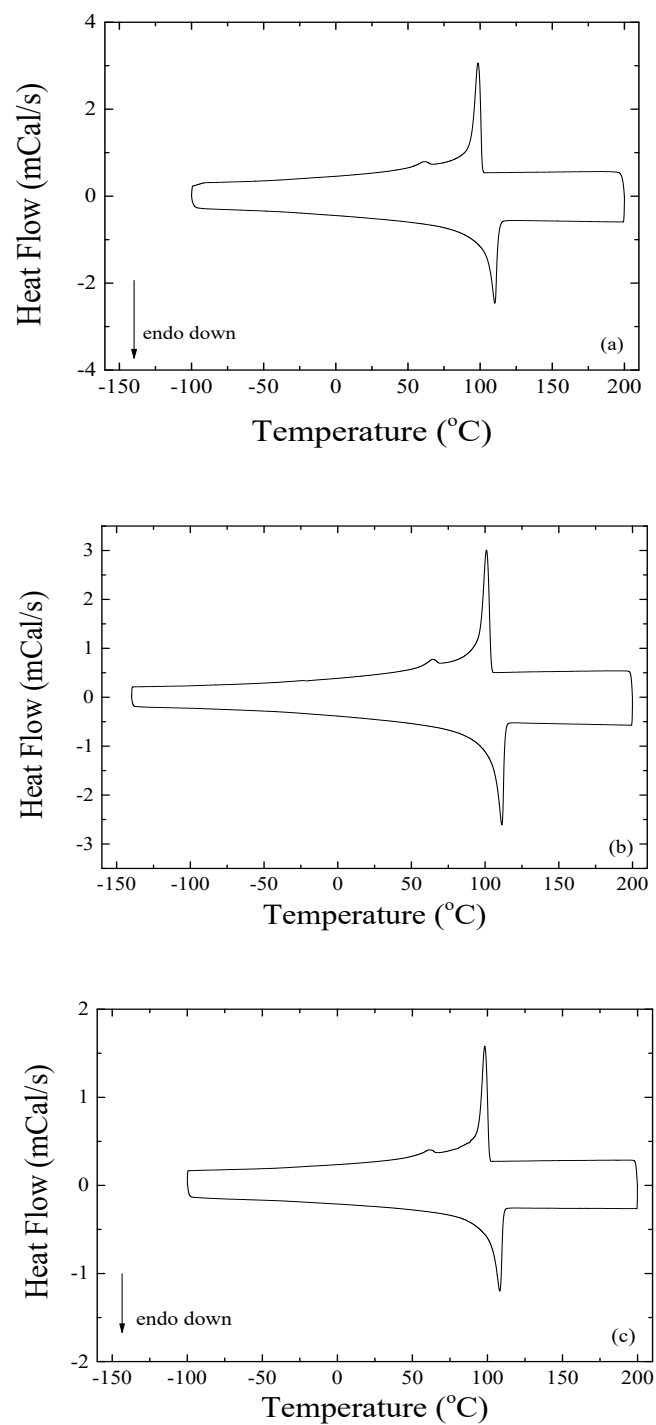


Figure S1: DSC thermographs of (a) neat LDPE film, (b) a LDPE film coated with a nanocomposite containing 77% wt Silres and 23% wt ZL film and (c) a LDPE film coated with a nanocomposite containing 56% wt Dynasylan SIVO 121 and 44% wt PG003 film.

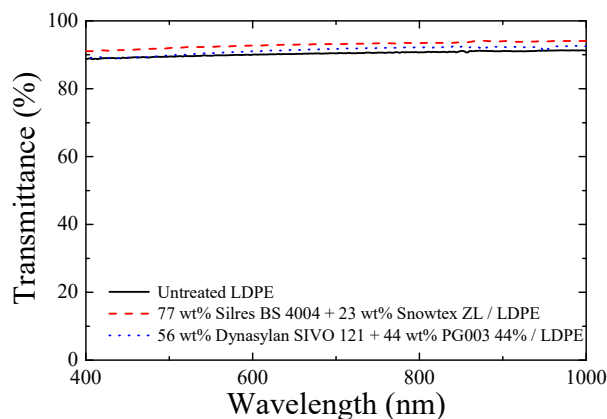


Figure S2: UV/Vis spectrum of a neat LDPE film (black solid line), of a LDPE film coated with a nanocomposite containing 67% wt Silres 4004 and 23% ZL (red dashed line) and of a LDPE film coated with a nanocomposite containing 56% wt Dynasytan SIVO 121 and 44% PG003 (blue dotted line)

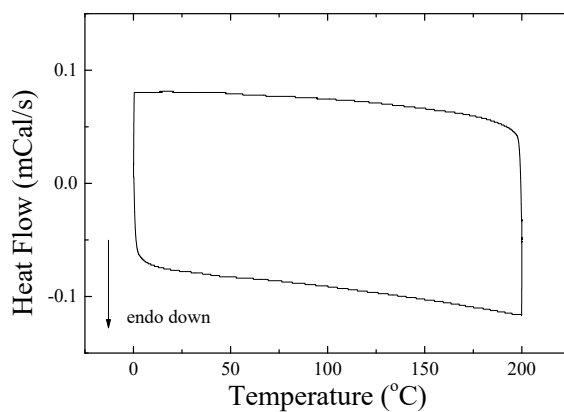


Figure S3: DSC thermograph of Silres BS 4004

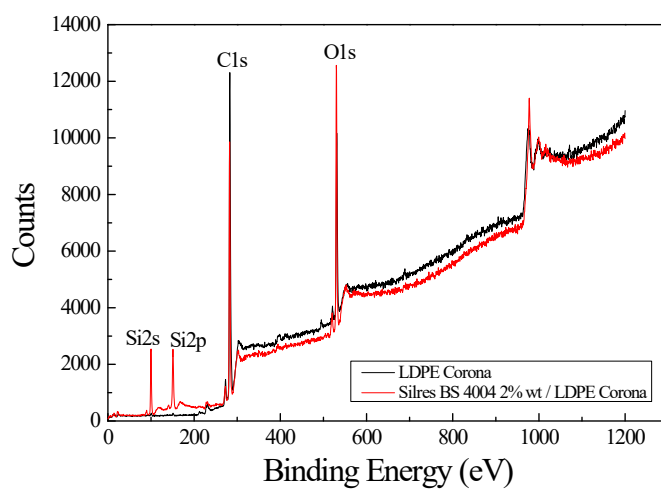


Figure S4: XPS survey spectra of corona treated LDPE and corona treated LDPE coated with Silres BS 4004 of 2 %wt concentration in water

Table S1: Surface atomic composition obtained by the analysis of the high-resolution XPS spectra for the LDPE Corona, the LDPE Corona coated with Silres BS 4004 of 2 %wt concentration in water and the LDPE Corona coated with the Dynasytan SIVO 121 of 1 %wt concentration in water

Peaks	LDPE Corona	LDPE Corona coated with Silres BS 4004	LDPE Corona coated with Dynasytan SIVO 121
C	82.2%	58.7%	27.9%
O	17.8%	22.7%	7.2%
Si	-	18.6%	3.9%
F	-	-	61.0%

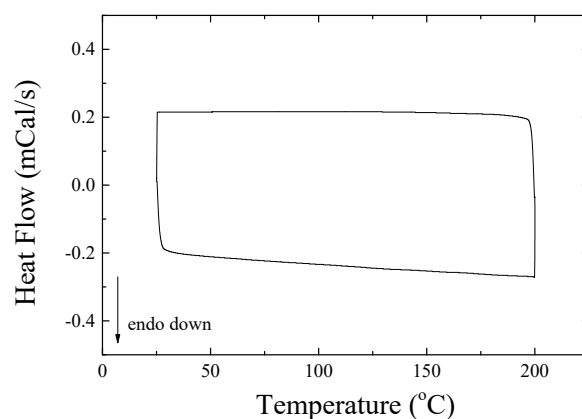


Figure S5: DSC thermograph of Dynasytan SIVO 121

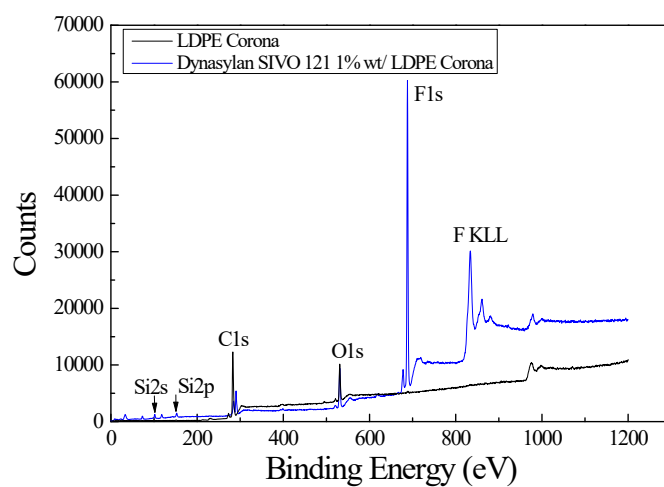


Figure S6: XPS survey spectra of corona treated LDPE and corona treated LDPE coated with Dynasytan SIVO 121 of 1 %wt concentration in water.