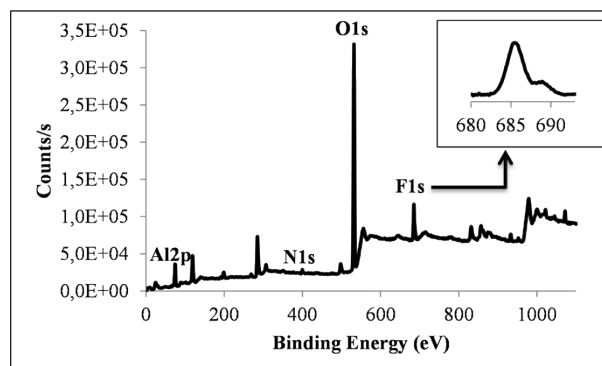
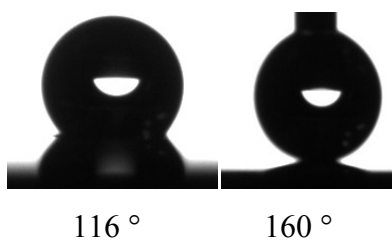


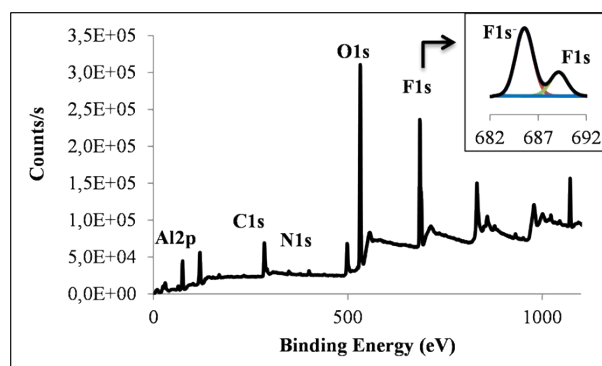
## Electronic Supplementary Information



**Fig. ESI 1.** XPS spectrum of an Al surface with its native oxide modified by electrochemical reduction of  $\text{D}(\text{CF}_3)_2 + \text{R}_\text{F}\text{I}$  by chronoamperometry at  $E = -0.8 \text{ V/SCE}$  for 15 min.



**Fig. ESI. 2.** Water contact angles of Al discs electrografted in the presence of  $\text{I}(\text{CH}_2)_2\text{C}_6\text{F}_{13}$  and  $\text{DNO}_2$  (left,  $116^\circ$ ) or  $\text{D}(\text{CF}_3)_2$  (right,  $160^\circ$ ). Ultrasonic cleaning for 6 min in acetone.



**Fig. ESI. 3.** XPS spectrum of an Al surface with its native oxide modified by spontaneous reaction with  $\text{R}_\text{F}\text{NH}_2$ .