Supplementary Information


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Figure S1. The XPS depth profiles of $C_{60}$/p-type doped Gr structures ((a) Au 4f and (b) Cl 2p of $C_{60}$/AuCl$_3$-Gr, (c) F 1s of $C_{60}$/TFSI-Gr and N 1s of $C_{60}$/HNO$_3$-Gr structures), all of which underwent an aging process of one month under ambient conditions.
Figure S2. The UPS depth profiles of (a) C$_{60}$/As$_x$Gr, (b) C$_{60}$/AuCl$_3$Gr, (c) C$_{60}$/HNO$_2$Gr and (d) C$_{60}$/TFSI$_x$Gr obtained after an aging process of one month under ambient conditions.
Figure S3. The XPS depth profiles of C$_{60}$/p-type doped Gr structures ((a) Au 4f and (b) Cl 2p of C$_{60}$/AuCl$_3$-Gr, (c) F 1s of C$_{60}$/TFSI-Gr and N 1s of C$_{60}$/HNO$_3$-Gr structures), all of which underwent an aging process of two months under ambient conditions.
**Figure S4.** The XPS depth profiles of $C_{60}$/p-type doped Gr structures ((a) Au 4f and (b) Cl 2p of $C_{60}/AuCl_3$ _Gr, (c) F 1s of $C_{60}$/TFSI _Gr and N 1s of $C_{60}$/HNO$_3$ _Gr structures), all of which underwent an aging process of three months under ambient conditions.