	G/ $C_{60}F_{48}$ (Ω)	(G/ $C_{60}F_{48}$)$_2$ (Ω)
/Start	127	42
50°C, N_2, 15 min	123	41
100°C, N_2, 15 min	127	37
150°C, N_2, 15 min	112	38
200°C, N_2, 15 min	156	48
22°C, 60%RH air, 3 h	148	47
22°C, 60%RH air, 20 h	136	49
150°C, 60%RH air,[a] 15 min	133	46
150°C, 95%RH air,[a] 15 min	133	48
End	133	48

Footnote

[a] RH = relative humidity of ambient air (22°C) flowed into chamber. Sample on heated plate.

Supplementary Table 1. Resistance in Ohms of G/ $C_{60}F_{48}$ and (G/ $C_{60}F_{48}$)$_2$ assemblies on 300-nm thick SiO_2/ Si wafers, taken sequentially through different treatments. All resistance measurements were performed in N_2 at 22°C. The robustness of these samples to brief heating in both N_2 and even wet ambient air is evident.

	Theory		Experiment
	6-311g(*d*)	6-31g+(*d*)	
Ionization potential			
C_{60}	7.65	7.64	7.61 ±0.06
$C_{60}F_{18}$	9.0	9.06	
$C_{60}F_{36}$	11.3	11.46	
$C_{60}F_{48}$	12.0	12.2	12.3 ±0.1{Steger, 1997 #72}
F_4-TCNQ	9.24	9.32	
1st electron affinity			
C_{60}	2.64	2.64	2.67 ±0.02
$C_{60}F_{18}$	3.02	3.09	
$C_{60}F_{36}$	3.23	3.42	
$C_{60}F_{48}$	3.74	4.00	4.06 ±0.3 (adiabatic){Jin, 1994 #5; Hettich, 1994 #65}
F_4-TCNQ	4.47	4.56	
2nd electron affinity			
C_{60}	<0	<0	<0
$C_{60}F_{18}$	<0	0.08	
$C_{60}F_{36}$	0.61	0.86	
$C_{60}F_{48}$	1.82	2.13	
F_4-TCNQ	0.12	0.33	

Supplementary Table 2. Computed values are for vertical transitions. 6-311g(*d*) is sufficient to predict E_A accurately for C_{60}. Diffuse functions not required. The adiabatic E_A can be evaluated as the mean of the vertical E_As computed at the ground-state geometry of the initial state and of the final state. For C_{60}, the adiabatic E_A is 0.09 eV larger than the vertical E_A for the initial ground-state geometry. For $C_{60}F_{48}$, this is ca. 0.2 eV; for $C_{60}F_{48}^-$, 0.3 eV; for $C_{60}F_{36}$, 0.08 eV; for $C_{60}F_{18}$, 0.14 eV; for F_4-TCNQ, 0.17 eV. The results converge to yield the I_P of $C_{60}F_{48}$ at 12.1 eV (expt, 12.3±0.1 eV){Steger, 1997 #72}, first adiabatic E_A at 4.0–4.3 eV (expt, 4.06±0.3 eV).{Jin, 1994 #5}