



Journal Name

ARTICLE

## Electronic Supplementary Material

### Effect of Plasma treatment on multilayer Graphene: X-Ray Photoelectron Spectroscopy, Surface morphology investigations and work function measurements

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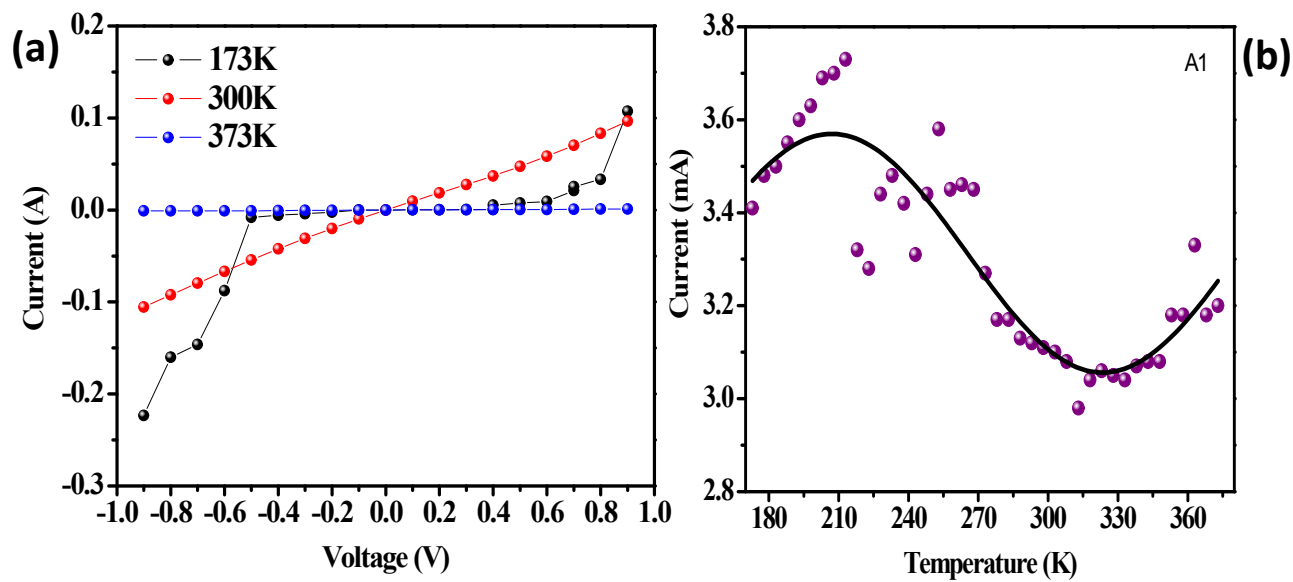
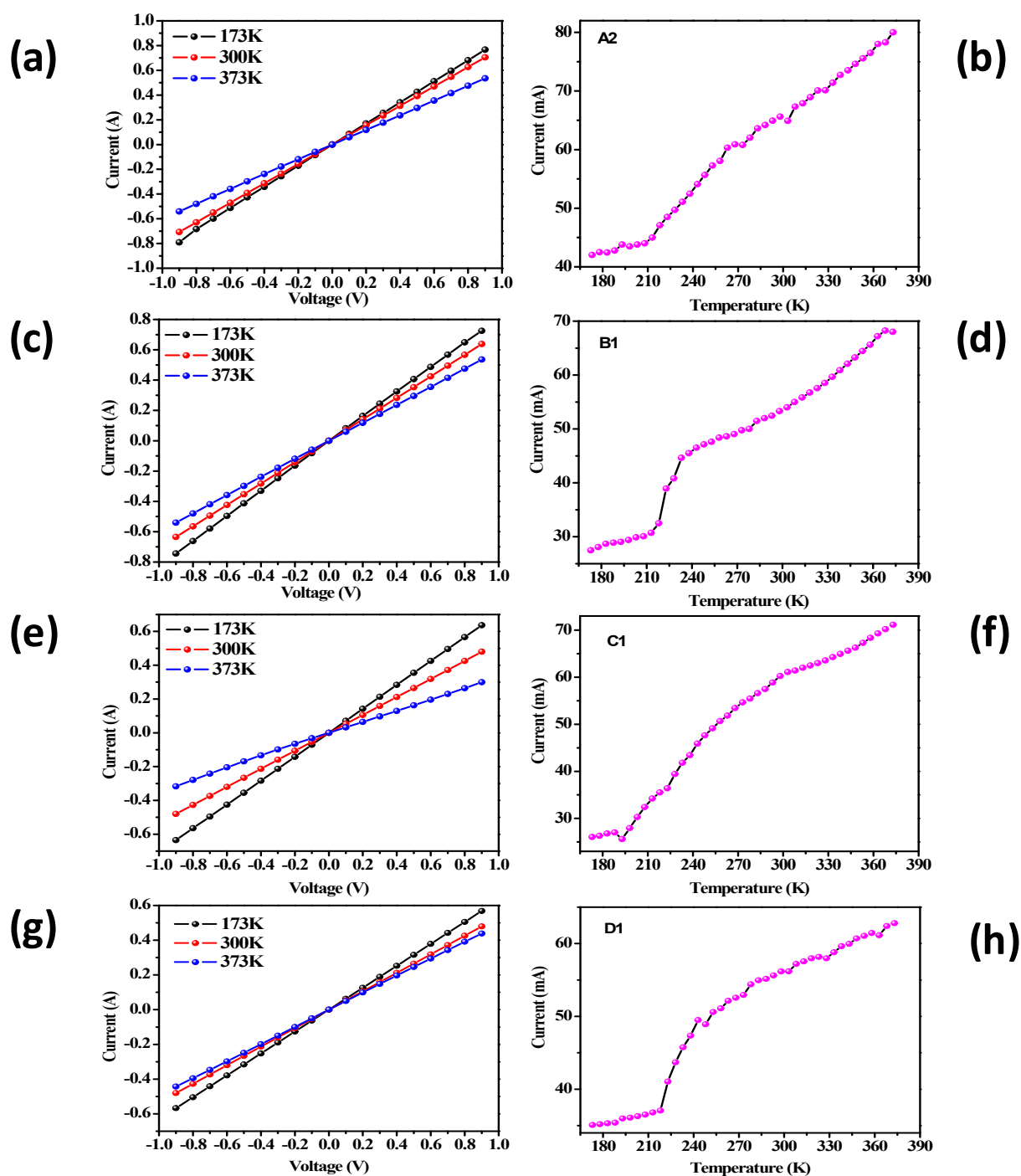
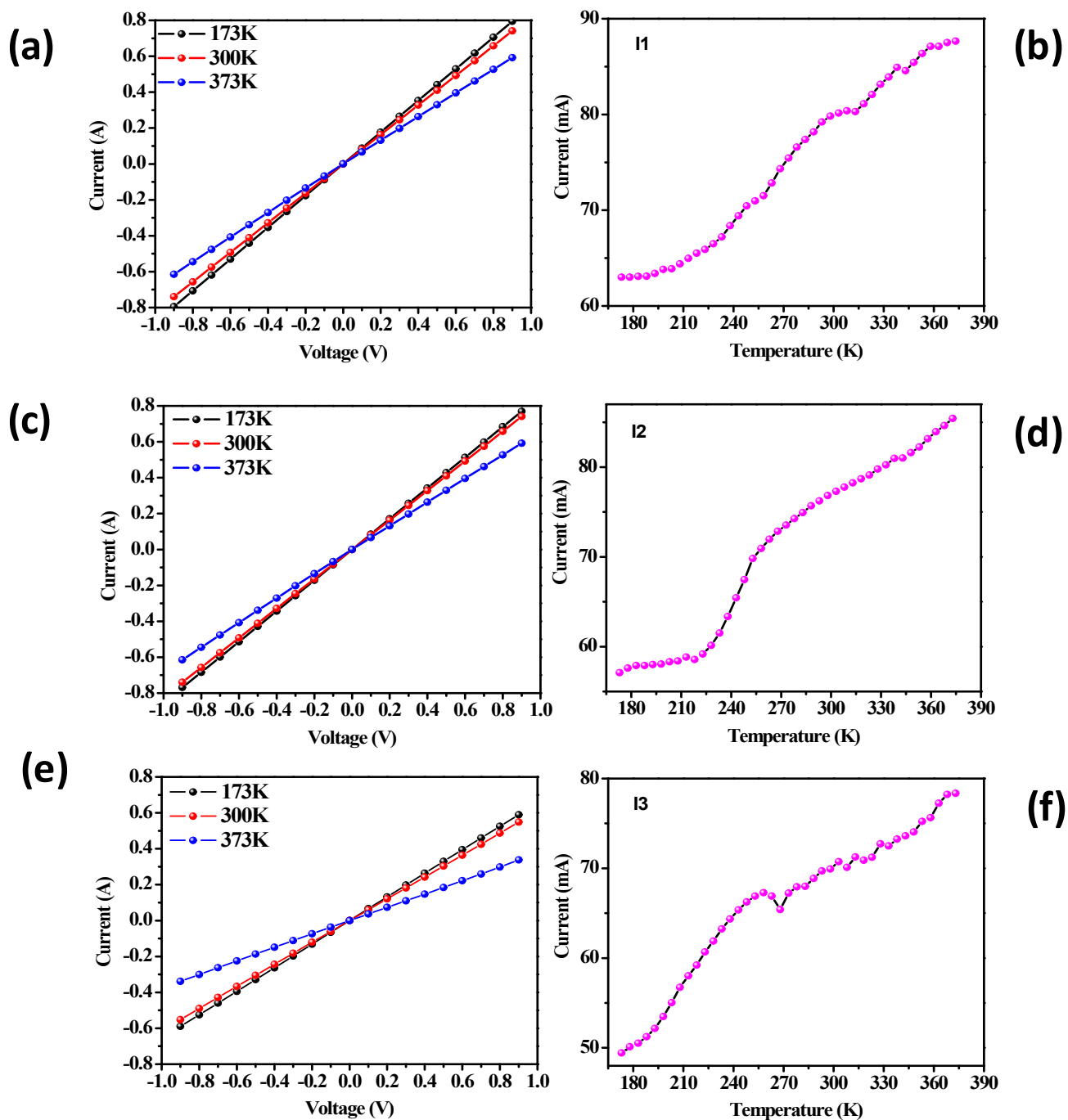
**Figure S1:****Figure S1:** (a) IV curve at different temperatures and (b) current Vs temperature plot for sample A1.

Figure S2:



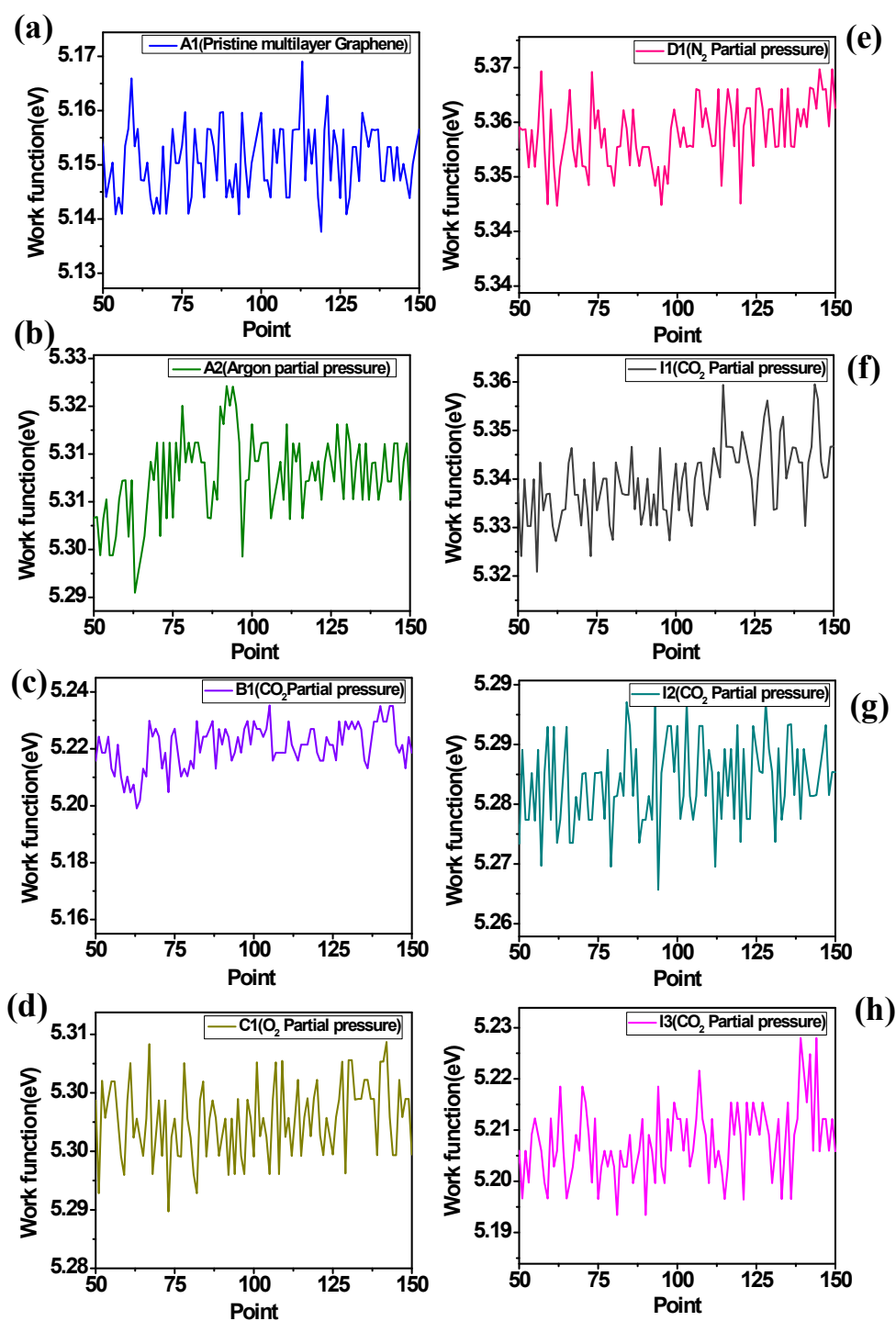
**Figure S2:** IV curve at different temperatures (a, c, e and g) and current Vs temperature (b, d, f and h) plots for sample A2, B1, C1 and D1 respectively.

Figure S3:



**Figure S3:** IV curve at different temperatures (a, c and e) and current Vs temperature (b, d and f) plots for sample I1, I2 and I3 respectively.

Figure S4:



**Figure S4:** Work function plots for pristine and different plasma treated MLG samples carried out using Kelvin probe method.

**Table S1:**

Sample code	Bulk concentration (/cm <sup>3</sup> ) X10 <sup>21</sup>	Mobility (cm <sup>2</sup> /Vs)	Resistivity (Ω.cm)	Conductivity (1/Ω cm)	Hall coefficient (cm <sup>3</sup> /C) X10 <sup>-3</sup>
<b>A1</b>	-4.421	11.87	1.190X10 <sup>-4</sup>	8.405X10 <sup>3</sup>	-1.412
<b>A2</b>	3.103	7.453	2.699X10 <sup>-4</sup>	3.705X10 <sup>3</sup>	1.977
<b>B1</b>	0.8111	2.743	2.805X10 <sup>-4</sup>	3.565X10 <sup>3</sup>	7.695
<b>C1</b>	-0.3198	70.08	2.786X10 <sup>-4</sup>	3.590X10 <sup>3</sup>	-19.52
<b>D1</b>	-0.2663	68.30	3.432 X10 <sup>-4</sup>	2.941X10 <sup>3</sup>	-23.44
<b>I1</b>	-0.2537	3.912X10 <sup>-6</sup>	6.290X10 <sup>3</sup>	1.590X10 <sup>-4</sup>	-24.61
<b>I2</b>	-0.5185	0.4327	2.782X10 <sup>-4</sup>	3.595X10 <sup>3</sup>	-12.04
<b>I3</b>	-1.171	8.173	6.521X10 <sup>-4</sup>	1.533X10 <sup>3</sup>	-5.330

**Table S1:** Hall measurement results for pristine and plasma treated MLG samples.