Supporting information

Influence of nanosecond-pulse plasma on the non-enzymatic pathway for the generation of nitric oxide from L-Arginine and modifying the graphite oxide to increase the solar cell efficiency

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Fig. S1. (a) NO and (b) H2O2, concentration changes in physiological solutions exposed to point and plane electrodes in water different number of discharges.

Fig. S2. The change in pH and temperature after different number of discharges using point and plane electrodes.

Fig. S3. Liquid Chromatograph /Capillary Electrophoresis- Mass Spectrometer (LC/CE-MS) based qualitative bioanalysis of L-arginine control.

Fig. S4. NMR spectra of L-citrulline.

Fig. S5. Carbon 1s spectra from (a) synthesised GO, (b) GO treated with point electrode plasma and (c) GO treated with plane electrode plasma.

Fig. S6. (a) Raman Spectra of GO; (b) SEM image of synthesized GO sheets; (c) TEM image of GO sheets

Fig. S7. J–V characteristics of the PSCs fabricated.
Fig. S1.

Fig. S2.
Fig. S3

Fig. S4.
Fig. S5.
Fig. S6.
Table S1. Evaluation of a LC/CE-MS method for quantitative amino acid (L-Arginine) analysis before and after the NPP treatment using different electrodes.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Control (μg/ml)</th>
<th>Point (μg/ml)</th>
<th>Plane (μg/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-Arginine</td>
<td>164.200</td>
<td>167.814</td>
<td>165.379</td>
</tr>
</tbody>
</table>

Table S2. Work function of GO before and after treatment

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Point-point</th>
<th>Plane-plane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work function</td>
<td>10.63 eV</td>
<td>8.56 eV</td>
<td>9.21 eV</td>
</tr>
</tbody>
</table>