Electronic Supplementary Information for

Catalysis Performance Comparison for Electrochemical Reduction of CO₂ on Pd-Cu/Graphene Catalyst

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<table>
<thead>
<tr>
<th>Metal/graphene (wt.%)</th>
<th>Pd (nm)</th>
<th>Cu (nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5%Pd</td>
<td>6.44</td>
<td>-</td>
</tr>
<tr>
<td>1%Pd</td>
<td>4.60</td>
<td>-</td>
</tr>
<tr>
<td>3%Pd</td>
<td>5.36</td>
<td>-</td>
</tr>
<tr>
<td>0.5%Cu</td>
<td>-</td>
<td>6.67</td>
</tr>
<tr>
<td>1%Cu</td>
<td>-</td>
<td>4.44</td>
</tr>
<tr>
<td>2%Cu</td>
<td>-</td>
<td>3.33</td>
</tr>
<tr>
<td>3%Cu</td>
<td>-</td>
<td>6.67</td>
</tr>
<tr>
<td>1%Pd-1%Cu</td>
<td>8.05</td>
<td>8.88</td>
</tr>
<tr>
<td>1%Pd-2%Cu</td>
<td>6.43</td>
<td>5.33</td>
</tr>
<tr>
<td>1%Pd-3%Cu</td>
<td>8.05</td>
<td>5.33</td>
</tr>
</tbody>
</table>
Fig. S1 SEM images of (a) 0.5wt.%Pd/graphene catalyst, (b) 1wt.%Pd/graphene catalyst, (c) 3wt.%Pd/graphene catalyst, (d) 0.5wt.%Cu/graphene catalyst, (e) 1wt.%Cu/graphene catalyst, (f) 2wt.%Cu/graphene catalyst, (g) 3wt.%Cu/graphene catalyst, (h) 1wt.%Pd-1wt.%Cu/graphene catalyst, (i) 1wt.%Pd-2wt.%Cu/graphene catalyst, and (j) 1wt.%Pd-3wt.%Cu/graphene catalyst.
Fig. S2 Reductive LSV scans at 1wt.%Pd-2wt.%Cu/graphene catalyst in different concentration of KHCO₃ solution (a) and the fitting result (b).