

## Facile synthesis of Pt<sub>3</sub>Sn /graphene nanocomposites and their catalysis for electro-oxidation of methanol

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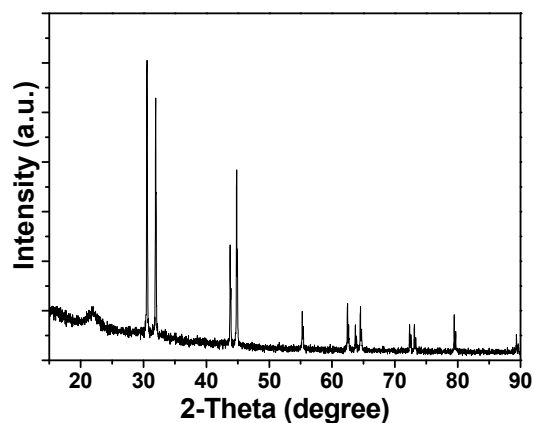


Fig. S1 XRD pattern of the Sn/graphene nanocomposites.

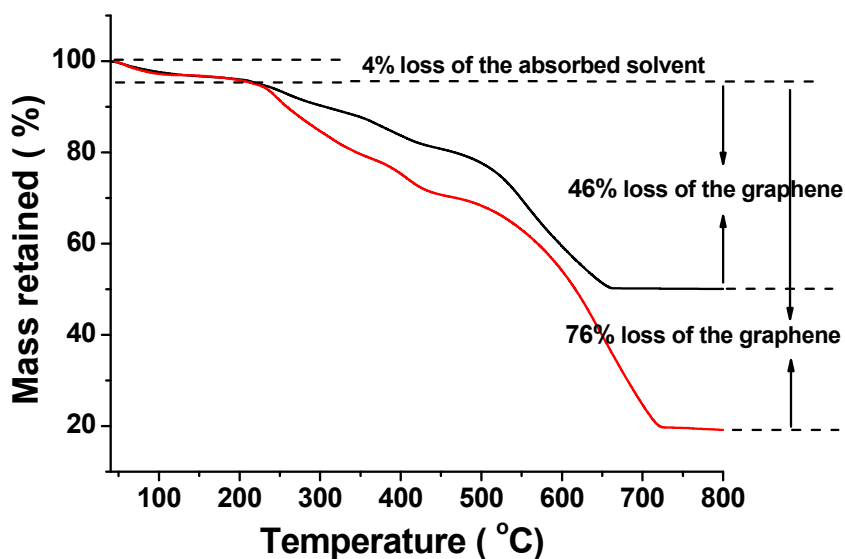
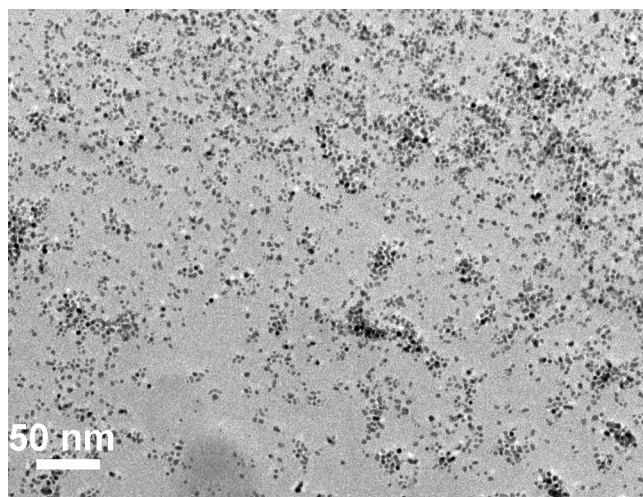
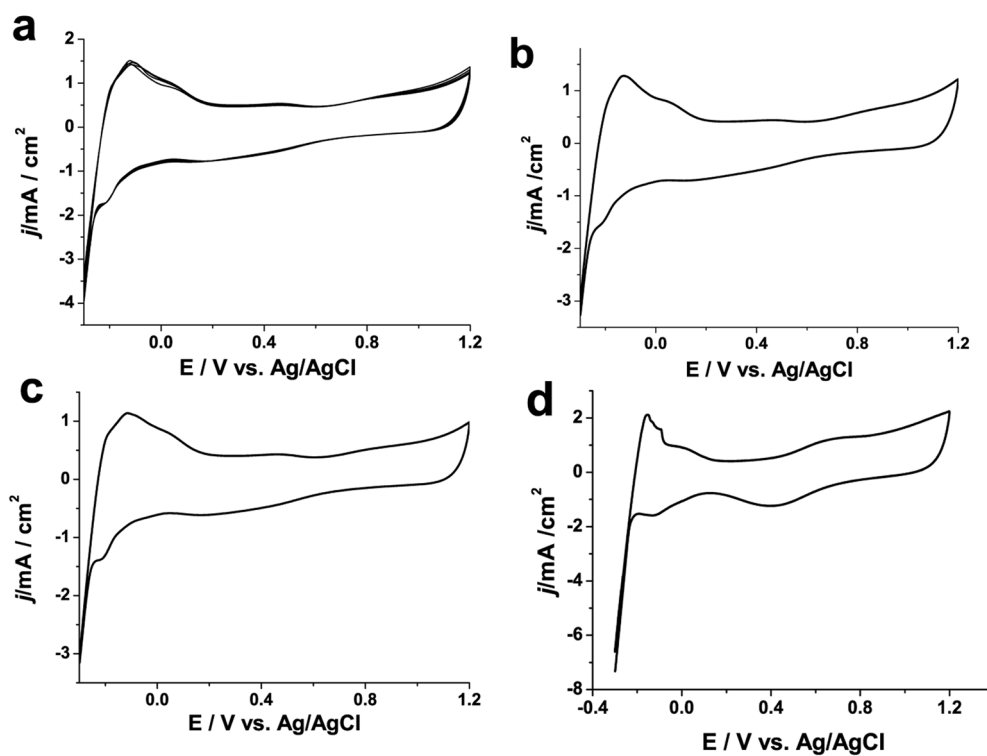


Fig. S2. TGA curves of Pt<sub>3</sub>Sn/graphene composites with the different Pt<sub>3</sub>Sn contents.



**Fig. S3.** TEM images of Pt<sub>3</sub>Sn/graphene composites with the Pt<sub>3</sub>Sn content of 20%.



**Fig. S4** CVs of (a) the commercial Pt/C catalysts, (b) the Pt/graphene composites, (c) Pt<sub>3</sub>Sn/grapheme (20%) and (d) Pt<sub>3</sub>Sn/grapheme (50%).