## **Supporting Information**

Electrooxidation of formic acid catalyzed by Pd–Ga nanoalloys

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**Fig. S1** (a) Overview of HAADF-STEM image of  $Pd_{3.9}Ga_1/OCNTs$ . (b) HAADF-STEM images of the  $Pd_{3.9}Ga_1/OCNTs$  at a higher magnification.



**Fig. S2** (a) HAADF-STEM image of a portion of the Pd<sub>3.9</sub>Ga<sub>1</sub>/OCNTs. (b-f) EDX elemental maps of C, O, Pd, Ga and superimposed map of Pd and Ga.



Fig. S3 Raman spectra of (a) non-functionalized CNT and (b) OCNT.



Fig. S4 XPS spectra of  $Pd_{3.9}Ga_1/OCNT$  in the O 1s region.



Fig. S5 CV measurements in 0.5-M  $H_2SO_4$  at (a) Ga/OCNT and (c) OCNT catalyst electrodes; Cyclic voltammograms of 0.5 M HCOOH in 0.5 M  $H_2SO_4$  solution at (b) Ga/OCNT and (d) OCNT catalyst electrodes.