

Supporting Information

Air/Water Interfacial Growth of Pt Nanothorns in-situ Anchored on Macroscopic Freestanding CNT Thin Film for Efficient Methanol Oxidation

Wei Zhang,^{ab} Lei Zhang,^{*b} Gui Zhang,^b Peng Xiao,^b Youju Huang,^b Min Qiang,^{*a} Tao Chen^{*b}

^a College of Chemistry and Chemical Engineering, Wuhan University of Science and Technology, 947 Peace Avenue, Wuhan 430081, China.

^b Key Laboratory of Marine Materials and Related Technologies, Zhejiang Key Laboratory of Marine Materials and Protective Technologies, Division of Polymers and Composite Materials, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo 315201, China.

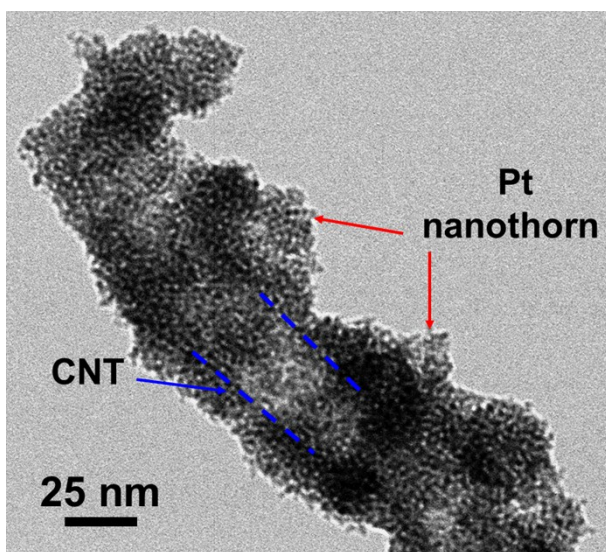


Fig. S1. TEM image of PtNTs coated on CNTs.

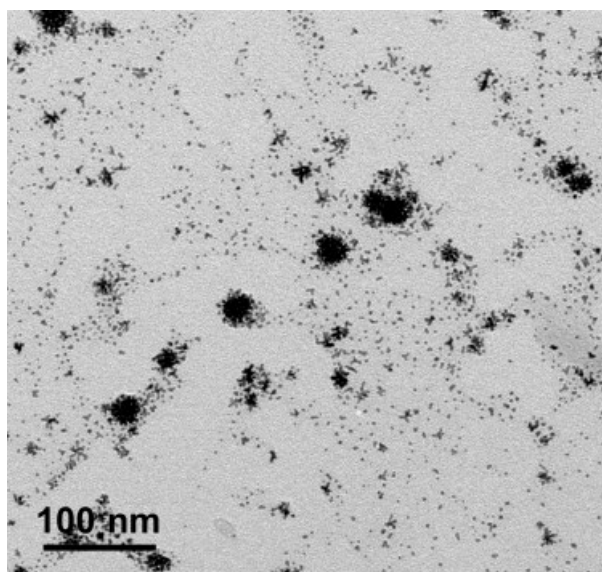


Fig. S2. TEM image of Pt nanoparticles in bulk solution during interfacial reaction.

Table. S1. The S_H , M_{Pt} and ECSA values of the composite film prepared under different time of interfacial reaction.

	Pt/C	3 h	6 h	12 h	24 h	36 h
S_H	0.015	0.031	0.064	0.057	0.048	0.043
M_{Pt} (mg)	0.035	0.018	0.032	0.054	0.073	0.163
ECSA (cm^2/mg)	40.81	164.01	190.52	100.55	62.62	25.12