

Supporting Information for  
**2D Self-Assembly of An Amido-Ended Hyperbranched Polyester  
Induced by Platinum Ion Coordination Effect**

Daohong Zhang<sup>\*,†</sup>, Junna Li<sup>†</sup>, Jing Wang<sup>†</sup>, Sufang Chen<sup>‡</sup>, Jiliang Zhou<sup>†</sup>, Tingcheng  
Li<sup>†</sup>, Junheng Zhang<sup>†</sup>, Aiqing Zhang<sup>†</sup>, Chuanjun Liu<sup>\*,§</sup>

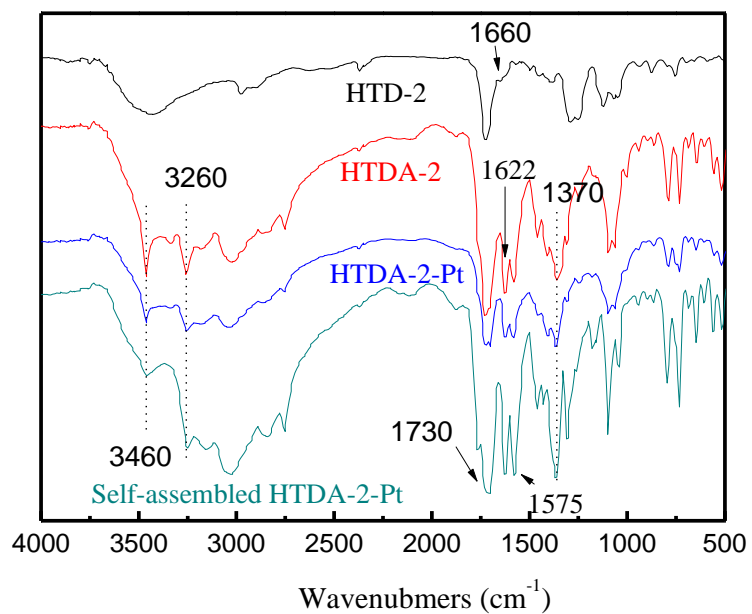
<sup>†</sup> Key Laboratory of Catalysis and Materials Science of the State Ethnic Affairs Commission &  
Ministry of Education, South-central University for Nationalities, Wuhan, Hubei Province, 430074,  
China

<sup>‡</sup> Key Laboratory for Green Chemical Process of Ministry of Education, Wuhan Institute of  
Technology, Wuhan, Hubei 430073, China

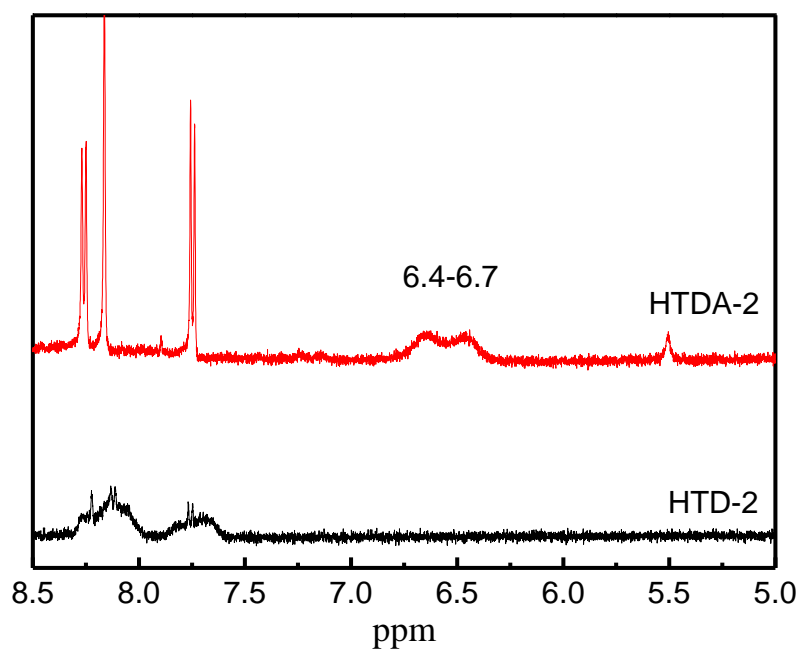
<sup>§</sup> Department of Electronics, Graduate School of Information Science and Electrical Engineering,  
Kyushu University, 744, Motoota, Nishiku, Fukuoka 819-0395, Japan

\*Prof. Dr. D. Zhang, Tel:+86-27-67842752. Fax: +86-27-67842752. Email: zhangdh27@163.com.

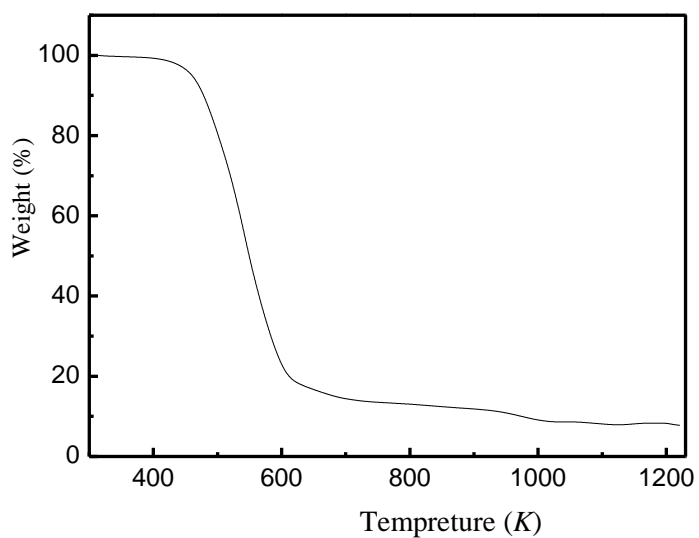
\*Dr. C. Liu, Tel: +81-92-8023629. Fax:+81-92-8023629. Email: Liu@belab.ed.kyushu-u-ac.jp.



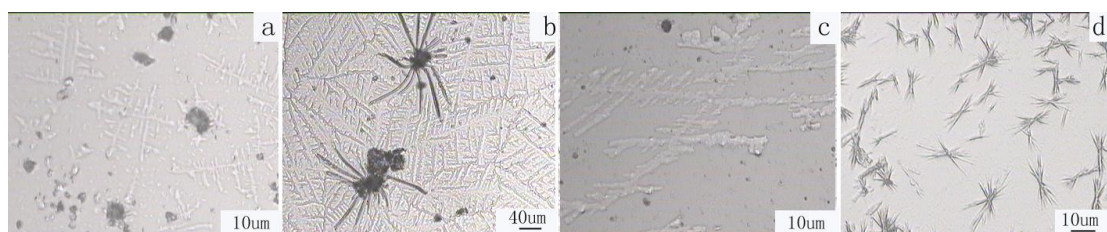
**Figure S1.** FT-IR spectra of HTD-2, HTDA-2, HTDA-2-Pt and self-assembled HTDA-2-Pt.



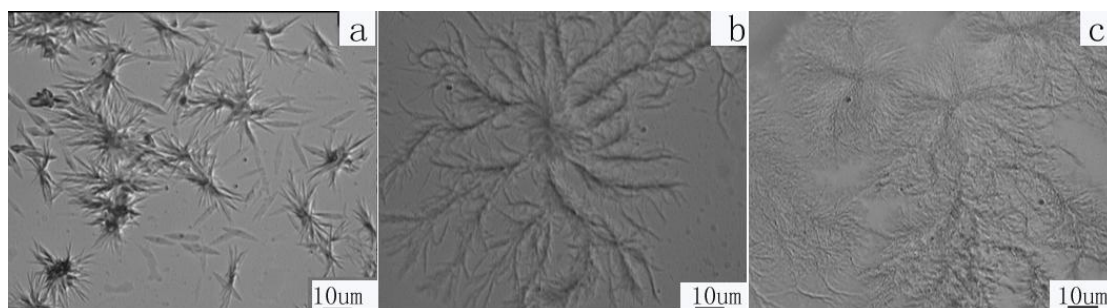
**Figure S2.**  $^1\text{H}$  NMR spectra of HTD-2 and HTDA-2 at  $\delta$  5.0-8.5 ppm.



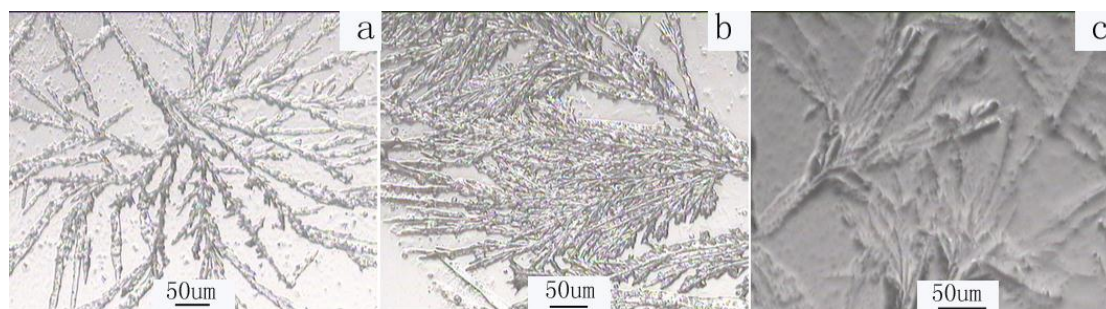
**Figure S3.** TGA curve of HTDA-2-Pt



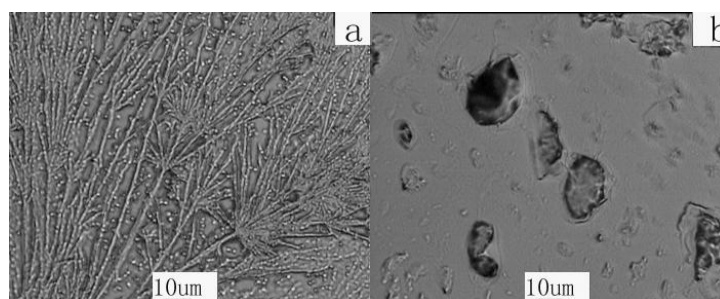
**Figure S4.** OM micrographs of self-assembled HTDA-2-Pt (0.1 g)/ solvent (7.9 mL) at 313 K and 40% relative humidity: (a) acetone, (b) ethyl acetate, (c) ether, and (d) DMF.



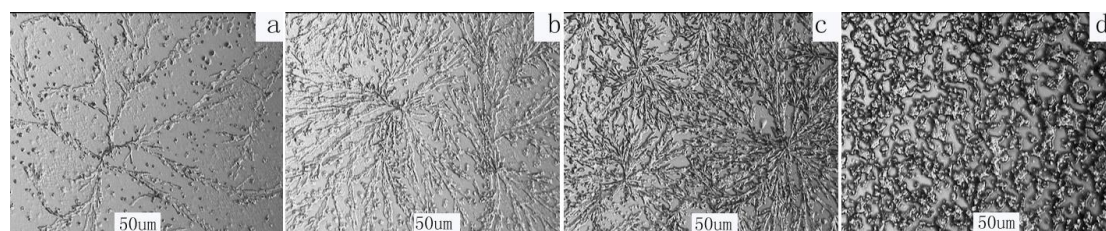
**Figure S5.** OM micrographs of self-assembled HTDA-2-Pt (0.10 g) and pyridine (7.90 mL) with various relative humidity at 313 K: (a) 20%, (b) 70%, and (c) 90%.



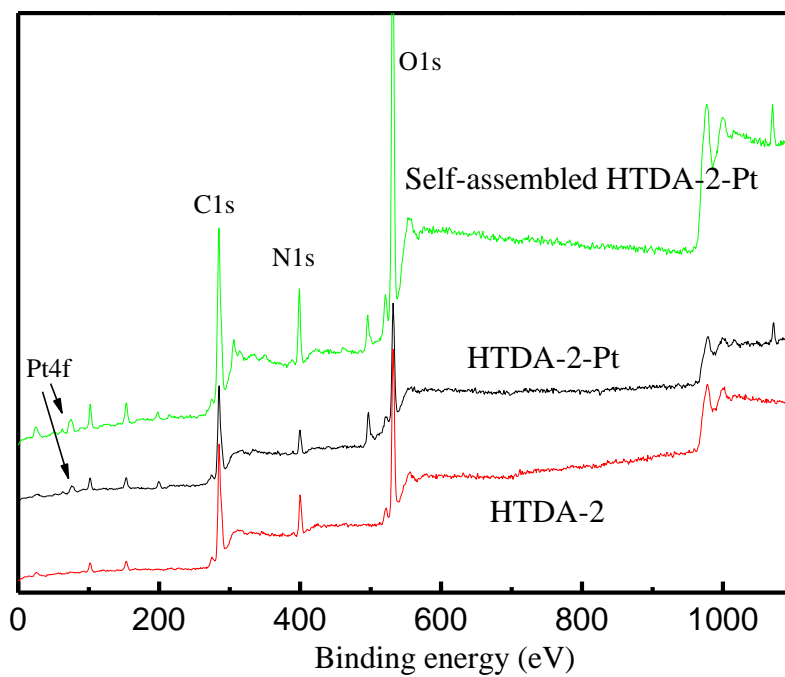
**Figure S6.** OM micrographs of self-assembled HTDA-2-Pt (0.10 g)/pyridine (7.90 mL) in 40% relative humidity at various temperatures: (a) 298 K, (b) 313 K, and (c) 353 K.



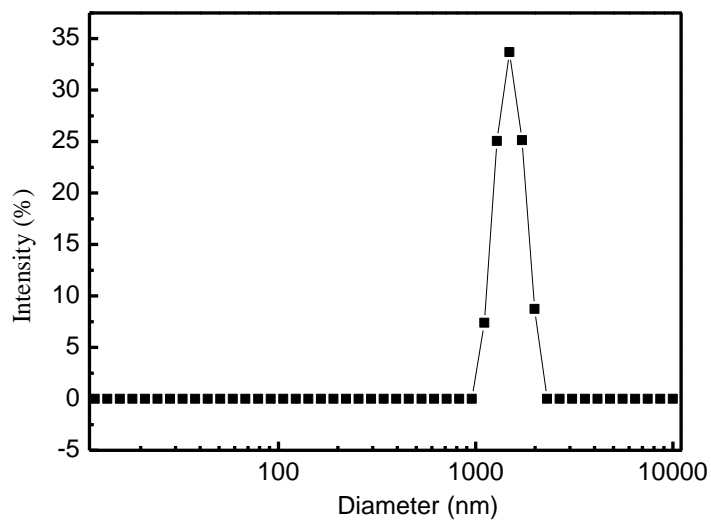
**Figure S7** OM micrographs of self-assembled HTDA-2-Pt (0.10 g)/pyridine (7.90 mL) containing various platinum contents at 298 K and in 40% relative humidity: (a) 3.81wt% and (b) 15.1wt%.



**Figure S8.** OM micrographs of self-assembled HTDA-2-Pt in different concentrations at 303 K and in 40% relative humidity: (a) 0.33wt%, (b) 1.54wt%, (c) 3.15wt% and (d) 5.24wt%.



**Figure S9.** XPS spectra of HTDA-2, HTDA-2-Pt and self-assembled HTDA-2-Pt.



**Figure S10.** Dynamic light scattering (DLS) curve of HTDA-2-Pt in pyridine