

Supporting Information

Synthesis of Hollow Mesoporous TiN Nanostructures as an Efficient Catalyst Support for Methanol Electro-oxidation

Yoon Hee Kim ¹, Hyeonkyeong Lee ¹, Dong Seop Choi ¹, Jiyull Kim ¹, Hyun Sung Jang ¹, Na Yeon Kim ¹ and Ji Bong Joo ^{1,*}

Department of Chemical Engineering, Konkuk University, Gwangjin-gu, Seoul, 05029, Republic of Korea

* Correspondence: jbjoo@konkuk.ac.kr; Tel.: +82-2-450-3545

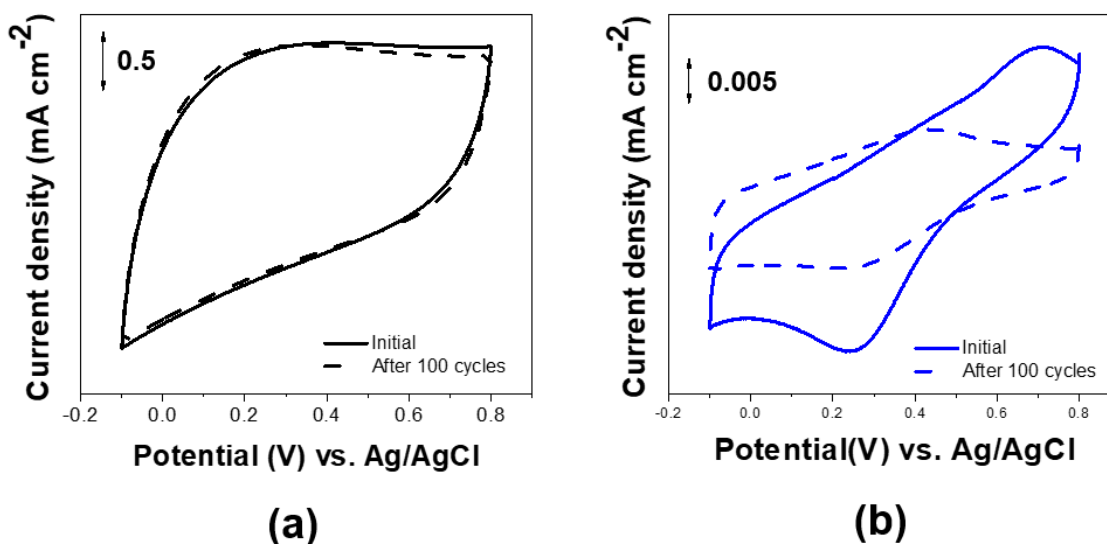


Figure S1. Continuous CV experiment results of H-TiN-800 and H-Anatase TiO₂ before and after 100th cycling between -0.1 V and 0.8 V in 0.5 M H₂SO₄ conditions.

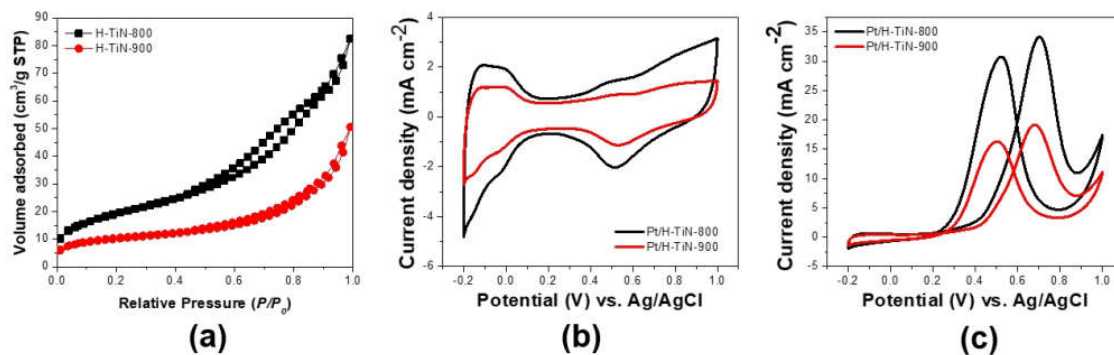


Figure S2. (a) Nitrogen adsorption/desorption isotherms of H-TiN-800 and H-TiN-900. CV results of Pt/H-TiN-800 and Pt/H-TiN-900 (b) in 0.5 M H₂SO₄ and (c) in 0.5 M H₂SO₄ containing 2 M CH₃OH.

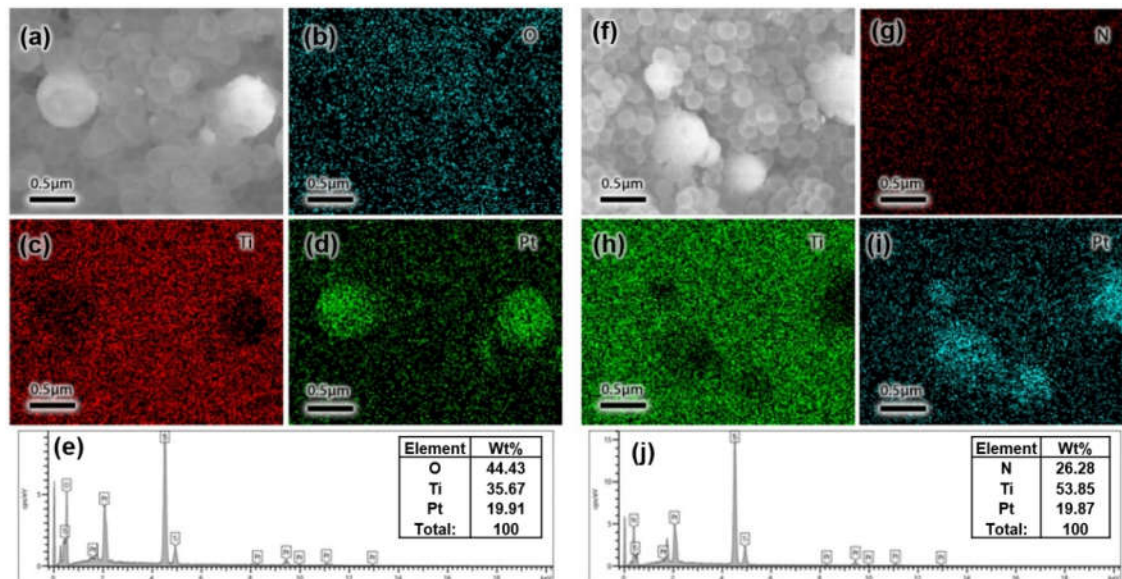


Figure S3. FE-SEM images, element mapping results and EDS spectra with element composition of (a-e) Pt/H-Anatase TiO₂, and (f-j) Pt/H-TiN-800