

Supporting Information

Effect of Calcination on the Structure and Catalytic Activities of Titanium

Incorporated SBA-15

Shih-Yuan Chen^a, Chih-Yuan Tang^b, Jyh-Fu Lee^c, Ling-Yun Jang^c, Takashi Tatsumi^d,

Soofin Cheng^{a,*}

^aDepartment of Chemistry, National Taiwan University, Taipei 106, Taiwan.

^bInstrumentation Center, National Taiwan University, Taipei 106, Taiwan.

^cResearch Division, National Synchrotron Radiation Research Center, Hsinchu 300,
Taiwan.

^dCatalytic Chemistry Division, Chemical Resources Laboratory, Tokyo Institute of
Technology, 4259-R1-9 Nagatsuta, Midori-ku, Yokohama 226-8503, Japan.

To whom the correspondence should be addressed:

Prof. Soofin Cheng

TEL: +886-2-33661662

FAX: +886-2-23636359

E-mail: chem1031@ntu.edu.tw

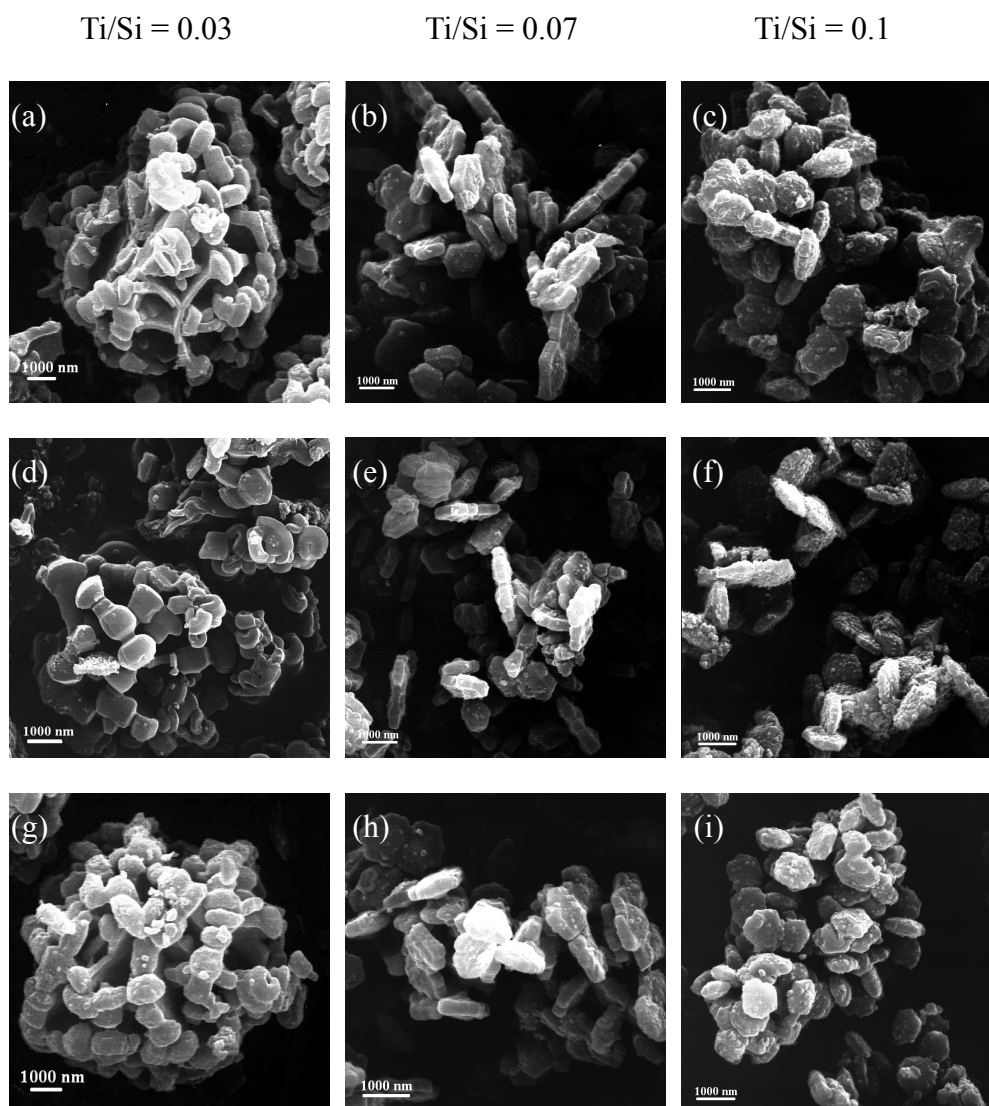


Fig. S1. SEM photographs of the (a,b,c) 800 °C, (d,e,f) 900 °C, and (g,h,i) 1000 °C calcined Ti-SBA-15 materials with various Ti/Si ratios of (a, d, g) 0.03, (b, e, h) 0.07, and (c, f, i) 0.1.

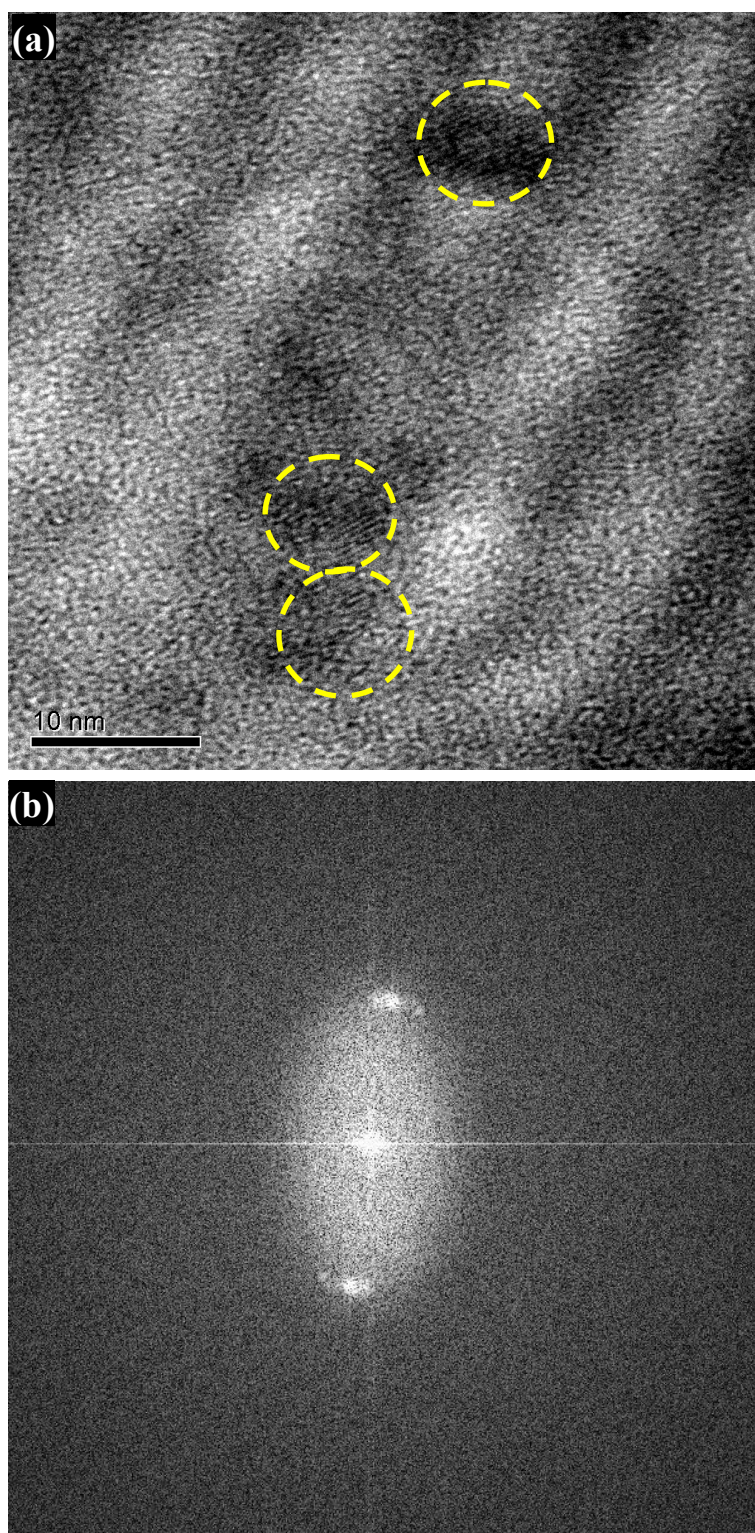


Fig. S2. (a) HRTEM photograph and (b) Fourier transform diffraction pattern of the C500-0.1Ti-SBA-15 material.

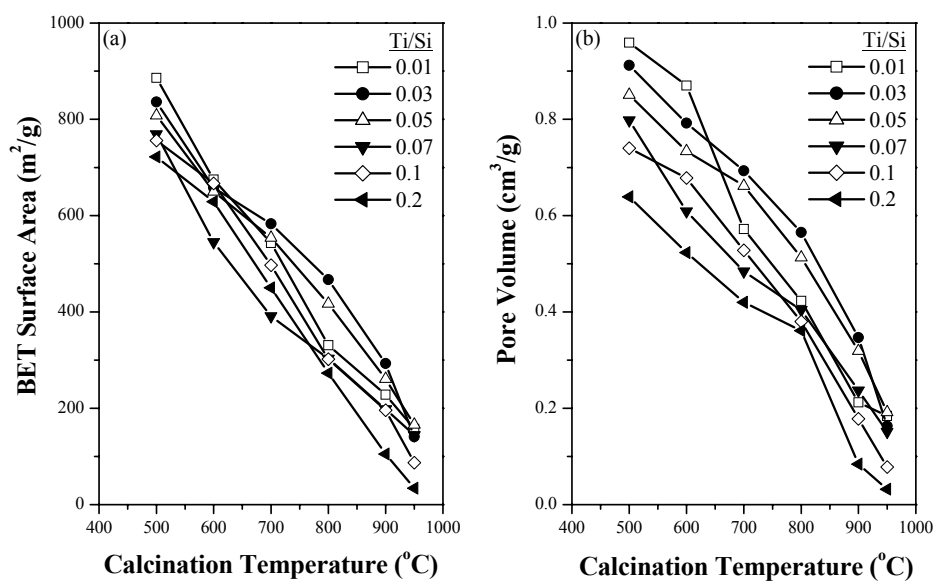


Fig. S3. Effect of calcinations temperature on the (a) BET surface areas and (b) pore volumes of the 500–950 °C calcined Ti–SBA–15 materials with various Ti/Si ratios.